

## **CHAPTER 3.**

### **Local Marketplace Conditions and Availability of Minority- and Women-owned Firms**

The Keen Independent study team examined quantitative and qualitative information about the Dane County construction marketplace, paths to business ownership within the local industry and the availability of minority- and women-owned businesses to work on City public works contracts. The Chapter also summarizes information about the relative success of minority- and women-owned construction firms in the local marketplace.

Chapter 3 draws upon quantitative information from Appendices E, F, G and H and in-depth interview results from Appendix J. These appendices provide much more information than is summarized here.

There are five parts to Chapter 3:

- A. Participation of minorities and women in the Dane County construction industry;
- B. Minority- and women-owned construction businesses in Dane County;
- C. Dollar-weighted availability of MBE/WBEs for City public works contracts;
- D. Relative success of minority- and women-owned firms in the local marketplace; and
- E. Summary of marketplace conditions and availability of minority- and women-owned firms.

#### **A. Minorities and Women in the Dane County Construction Marketplace**

About 2 percent of businesses related to public works construction contracting in Dane County are owned by racial and ethnic minorities.<sup>1</sup> About 7 percent of public works contracting businesses are owned by non-minority women. Keen Independent conducted telephone interviews with local construction businesses to develop these statistics.

Minority residents comprise 15 percent of the workforce of Dane County and that women are 49 percent of the local workforce. There are many reasons why the relative number of minority- and female-owned construction businesses does not match the Dane County workforce. As explained in this chapter, there is evidence that racial, ethnicity and gender-specific barriers in the path to business ownership are one factor. This is important background information to understand before examining the utilization of minority- and women-owned firms in City public works contracts (the subject of Chapter 4).

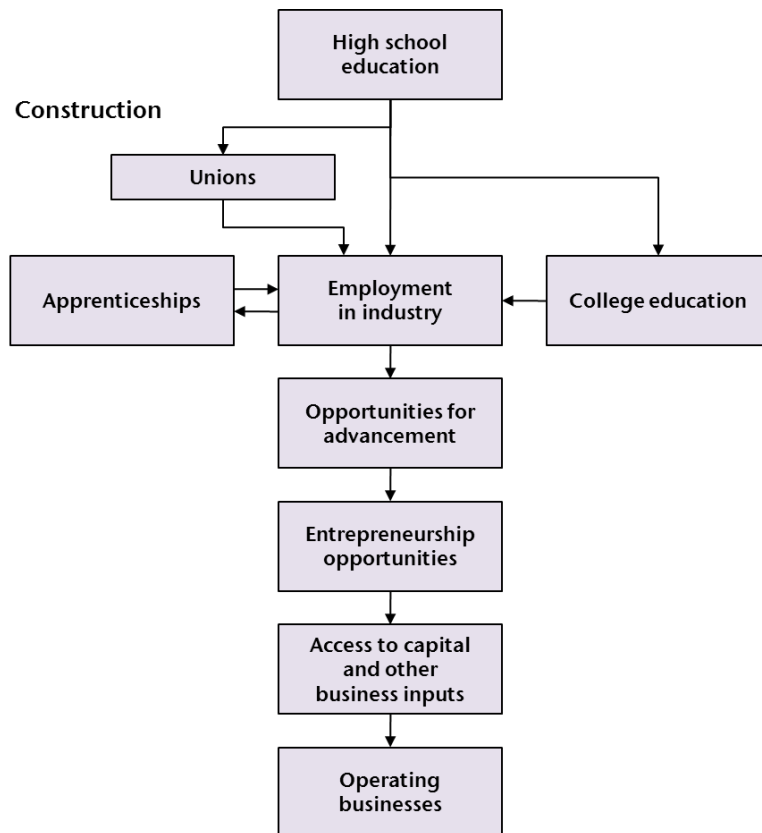
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<sup>1</sup> Most of the City of Madison public works dollars go to construction businesses in Dane County (90%). Therefore, analysis of the local construction industry focused on Dane County (inside and outside of the City of Madison).

**Paths to entry, advancement and business ownership in the construction industry.** Business ownership typically results from an individual entering an industry as an employee and then advancing within that industry to the point where he or she could become a business owner. Construction business owners and trade association representatives interviewed in the Madison area said that most owners first work in the industry and “worked their way up the ladder,” sometimes for family construction businesses and sometimes for other companies (see Appendix J).

This path involves many steps in the education and working life of an individual, as shown in Figure 3-1. Appendix E of this report describes in detail the role of each step in this figure.

Figure 3-1.  
Model for studying entry and business ownership for the construction industry



Source:  
Keen Independent Research.

**Minorities and women among the pool of potential construction business owners in Dane County.** Review of the path to construction business ownership begins by analyzing the relative number of minorities and women in the Dane County working age population and its construction workforce.

**Non-construction workforce living in Dane County.** As a starting point, the study team examined the racial, ethnic and gender representation among people in the non-construction workforce who live in Dane County. Figure 3-2 shows the non-construction workforce living in Dane County by race and ethnic group and gender based on the most current data at the time of this report.

**Figure 3-2.**  
**Demographics of workers in construction and non-construction industries, 2008-2012**

Note:

All self-identified Hispanics (based on the Census HISPAN variable) were considered Hispanic American, regardless of any other race or ethnicity identification.

Source:

Keen Independent Research study team from 2000 U.S. Census 5% sample and 2008-2012 ACS Public Use Microdata samples. The raw data extracts were obtained through the IPUMS program of the MN Population Center: <http://usa.ipums.org/usa/>.

Dane County	Construction industry	Non-construction industries
<b>Race/ethnicity</b>		
African American	2.8	4.7
Asian Pacific American	1.9	3.6
Subcontinent Asian American	0.0	1.2
Hispanic American	6.8	5.2
Native American	0.5	0.6
Other minority group	0.0	0.0
<b>Total minority</b>	<b>12.0 %</b>	<b>15.2 %</b>
Non-Hispanic white	88.0	84.8
<b>Total</b>	<b>100.0 %</b>	<b>100.0 %</b>
<b>Gender</b>		
Female	10.1 %	50.4 %
Male	89.9	49.6
<b>Total</b>	<b>100.0 %</b>	<b>100.0 %</b>

Minorities as a percent of total non-construction workforce nearly tripled between 1990 (5.4%) and 2008-2012 (15.2%). The Latino workforce grew rapidly, but so did the relative number of African American and Asian American workers. Overall, Hispanic Americans, African Americans and Asian Americans each represent about one-third of the minority non-construction workforce in Dane County.

The gender composition of the non-construction workforce has remained constant since 1990. Women account for about half of the non-construction workforce.

**Construction workforce.** Nationally, the representation of minorities in the construction workforce is very similar to that of the overall workforce.<sup>2</sup> However, in Dane County, racial and ethnic minorities were 12 percent of the construction workforce in 2008-2012, less than representation in

<sup>2</sup> The labor force consists of the civilian labor force (employed and unemployed) as well as active duty members of the U.S. Armed Forces. Civilians 16 years and older who are not classified in the labor force include students, homemakers, retired workers, seasonal workers interviewed in an off season who were not seeking work, persons doing incidental unpaid family work of less than 15 hours and the institutionalized population (see [http://www.census.gov/acs/www/Downloads/data\\_documentation/SubjectDefinitions/2010\\_ACSSubjectDefinitions.pdf](http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2010_ACSSubjectDefinitions.pdf) for more information).

the non-construction workforce (15.2%). This gap has existed at least since 1990, and was even more severe in 2000 when minorities only accounted for 5 percent of the construction workforce, less than one-half of minority representation in the overall workforce (10.6%).

Latino construction workers accounted for most of the increase in minority representation in the Dane County construction workforce since 1990. The Latino construction workforce grew from less than 1 percent in 1990 to 6.8 percent in 2008-2012. Overall, Hispanic Americans represent just over one-half of the minority construction workforce. African Americans represent about one-fourth and Asian Americans represent about one-in-six minority workers in construction.

The gap between representation in construction workers and non-construction workers living in Dane County is highest for African Americans. African Americans are only 2.8 percent of the construction workforce compared with 4.7 percent of the non-construction workforce. Asian Americans are also underrepresented in the local construction workforce.

In 2008-2012, women accounted for about 10 percent of the local construction workforce, which includes office staff. The size of the gap between representation of women in construction and other industries has existed for many years, and is similar to what is found for the nation. Limiting the analysis to specific trades (and not including office staff), women account for only 1 to 4 percent of workers in most trades.

**Construction trades.** There appears to be substantial differences in opportunities for minorities and women in construction work based on specific construction trades. Although there is not a large enough sample of workers by trade in the ACS data for the Madison area, data from Wisconsin for 2008-2012 show that minorities (mostly Latinos) comprise almost one-half of people working as drywall installers and 20 percent of cement masons but only 5 percent of carpenters in the state. (In 2008-2012, minorities were 9 percent of the statewide construction workforce.)

The growth in minority employment in construction has been concentrated in certain trades and among lower skill workers. Trades such as drywall, roofing, cement masonry and painting had minority representation of only about 10 percent statewide as recently as 2000, but each of these trades now has at least 16 percent minority workers. Trades such as carpentry and electrical work have seen much smaller changes.

There has been very low representation of women in most construction trades for many years (typically 4 percent or less of workers in a trade). One of the commenters on the draft report pointed out that contractors complain about the limited availability of women in the trades. The Southwest Area Construction Apprentice Snapshot Report for March 1, 2015, produced by the Department of Workforce Development for the Wisconsin Department of Transportation, provides a point-in-time count of active and unassigned construction apprentices. The report shows that 12.4 percent of current active apprentices in Dane County were minority and 2.8 percent were female.

**Management ranks.** None of the minorities in Dane County working in construction in the ACS 2008-2012 sample were managers. In contrast, 8 percent of non-minorities in construction were managers. Keen Independent found similar disparities in 1990 and 2000 for Dane County.

The percentage of local women working in the construction industry who were managers was similar and not statistically different from the percentage of men in the construction industry who were managers (6.6% and 7.4%, respectively) in 2008 through 2012. Census data indicate a substantial increase in representation of women as managers since 2000.

**Qualitative information about barriers to employment.** A number of minority, female and white male business owners and trade association representatives indicated that there was not a level playing field for minorities and women to obtain jobs and advance within the local construction industry. There were reports that worksites have a tone of racism and bias and that the construction industry stands out as not being welcoming to minorities and women. One interviewee discussed how racial slurs are directed at African American working on job sites. The qualitative information is consistent with the disparities for minorities and women in employment in the industry presented above.

**Academic research concerning the effect of race- and gender-based discrimination on employment in construction.** Many academic studies indicate that race- and gender-based discrimination affects opportunities for minorities and women in the construction industry in the United States.

- The literature concerning women in construction trades has identified substantial barriers to entry and advancement due to gender discrimination and sexual harassment (see Appendix E of this report).
- Some researchers blame the importance of social networks for the high degree of ethnic segmentation in the construction industry, as explained in Appendix E. They argue that African Americans and other minorities faced long-standing historical barriers to entering the industry, because they have been unable to integrate themselves into traditionally white social networks that exist in the construction industry (see Appendix E).
- Some researchers have identified racial discrimination by trade unions that has historically prevented minorities from obtaining employment in skilled trades (see Appendix E).
- However, more recent research suggests that the relationship between minorities and unions has been changing. As a result, historical observations may not be indicative of current dynamics in construction unions.

**Conclusions from the analysis of entry and advancement in construction.** Even though the demographics of this industry are rapidly changing, there is evidence that minorities and women in Dane County continue to face barriers to entry and advancement within the construction industry, which have persisted over at least the last two decades.

## **B. Minority-and Women-owned Construction Businesses in Dane County**

Keen Independent examined many types of information about construction business ownership in Dane County, from very general statistics to data specific to public works construction businesses. This discussion begins with analysis of minority-owned companies. Data sources are:

- Population data from the U.S. Bureau of the Census;
- Business establishment data from the Survey of Business Owners;
- Construction business data from Dun & Bradstreet;
- Keen Independent survey of businesses qualified and interested in City construction projects; and
- Construction firms the City has prequalified for public works contracts.

**Population data from the U.S. Bureau of the Census.** U.S. Bureau of the Census captures information about business ownership in its different population surveys. Because ownership of even small, part-time businesses is counted, even if an individual has another job, these data present a very broad measure of business ownership. “Self-employment” in incorporated or unincorporated businesses is the measure used in these population surveys. Compared to other industries, construction has a relatively large number of self-employed business owners. In the 2008-2012 ACS data, about one in four construction industry workers in Dane County were self-employed business owners.

Based upon ACS data for 2008-2012, minorities were 7 percent of construction business owners in Dane County in 2008-2012. Because minorities comprised 12 percent of the construction workforce, there are substantially fewer construction businesses owned by minorities in Dane County than one might expect based on those working in the industry.

Women were 10 percent of the construction workforce in Dane County and about 8 percent of business owners in construction in 2008-2012. Therefore, fewer construction businesses are owned by women than one might expect based on the number of women in the construction industry.

Another way to look at business ownership is based on the percentage of people working in an industry who are self-employed. In 2008-2012, 15 percent of minorities in Dane County who worked in construction were self-employed compared with 24 percent of non-minorities. These disparities in business ownership rates have persisted in Dane County since at least 1990 and the 15 percent rate for minority business ownership in Dane County appears to lag behind the national rate for minorities (18% self-employment rate for construction).

In 2008-2012, about 19 percent of women working in the construction industry in Dane County were self-employed. The percentage of women who work in construction and are self-employed has doubled since 1990, narrowing the gap among self-employment rates of men and women in the industry. Self-employment among men in the construction industry in Dane County has changed little since 1990 (27% in 1990 and 25% in 2008-2012).

**Business establishment data from the Survey of Business Owners.** The study team also examined the most recent U.S. Census data for the Madison metro area from the Survey of Business Owners.<sup>3</sup> In 2007, about 5 percent of all businesses in the Madison metro area were minority-owned. Hispanic-owned businesses represented about 1 percent all businesses.<sup>4</sup>

Among construction businesses, only 1.5 percent of businesses were minority-owned. Hispanic-owned businesses accounted for about 1 percent of construction businesses.

Census population-based data show about 12 percent of the construction workforce are minority. Business ownership rates for minority workers in construction are substantially lower than for non-Hispanic whites (15% compared to 25%). Establishment-based data support these findings as less than 2 percent of construction businesses are minority-owned.

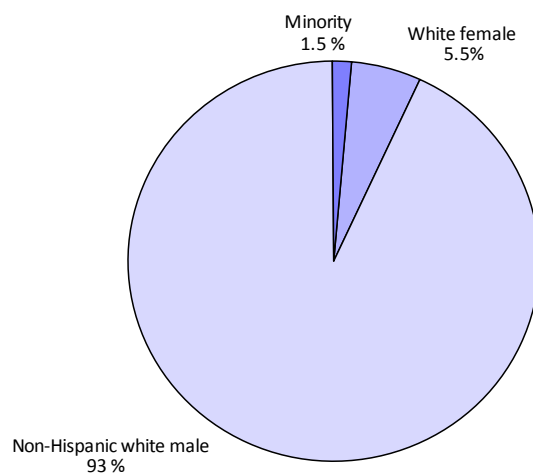
**Figure 3-3.**  
Survey of Business Owners data on ownership of construction businesses by race and ethnicity in Madison, 2007.

Note:

All firms with equal ownership between Hispanic and non-Hispanic were classified as non-Hispanic white.

Source:

Keen Independent Research study team from 2007 U.S. Census Bureau Survey of Business Owners. Data represent all firms classifiable by gender, ethnicity, race and veteran status, with or without paid employees.



The establishment data also show that about 28 percent of all businesses in the Madison metropolitan area in 2007 were women-owned. Among construction businesses, only about 6 percent were women-owned, all of which were white women-owned. These data are consistent with the population-based data that show women represent 8 percent of construction business owners.

**Construction business data from Dun & Bradstreet.** Keen Independent analyzed data for the construction industry from Dun & Bradstreet, which is the most current and comprehensive available source of information for individual businesses in the United States. D&B collects information about whether firms are minority- or women-owned.

Keen Independent's analysis of the construction firms identified by Dun & Bradstreet in 2014 indicated that 1 percent of construction firms were minority-owned and that 3 percent were white women-owned, as shown in Figure 3-4 on the following page.

<sup>3</sup> For the 2007 Survey of Business Owners, the Madison, WI metropolitan statistical area includes Columbia County, Dane County and Iowa County, as delineated by the Office of Management and Budget.

<sup>4</sup> Each owner had the option of selecting more than one race and is included in each race selected. A Hispanic-owned firm may be of any race.

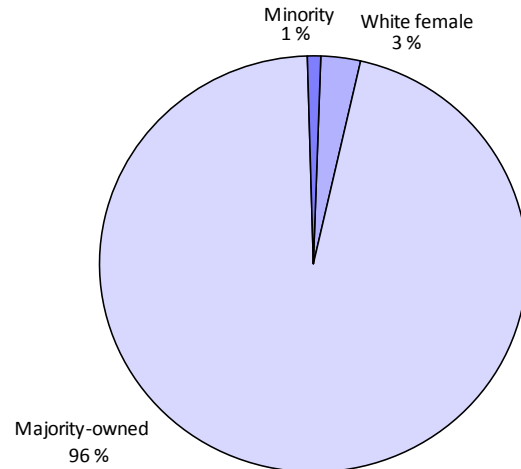
**Figure 3-4.**  
Dun & Bradstreet data on ownership of construction businesses in Dane County, 2014.

Note:

Data include all construction firms in Dane County with working phone numbers.

Source:

Keen Independent Research study team from 2014 Dun & Bradstreet database.



D&B counts established companies. D&B includes home-based companies and unincorporated businesses to provide a reasonably accurate picture of companies in operation within a community.

The number of construction firms identified in the D&B database is less than the number of construction firms identified in the 2007 Economic Census. While both the Dun & Bradstreet data and the Census data include home-based construction businesses, D&B requires substantive data on companies before they may be incorporated into their database. D&B counts establishments operating as stand-alone firms while Census data include people conducting construction work as a secondary occupation.

**Dun & Bradstreet data for public works-related firms.** Keen Independent also examined Dun & Bradstreet information for firms in construction subindustries related to public works contracting. For example, firms that primarily build single family or multifamily housing were not included (see Appendix D). After removing business listings that were found to have non-working phone numbers, Keen Independent found that 2 percent of public works-related firms in Dane County were minority-owned and that 3 percent were white women-owned. Figure 3-5 presents these results.

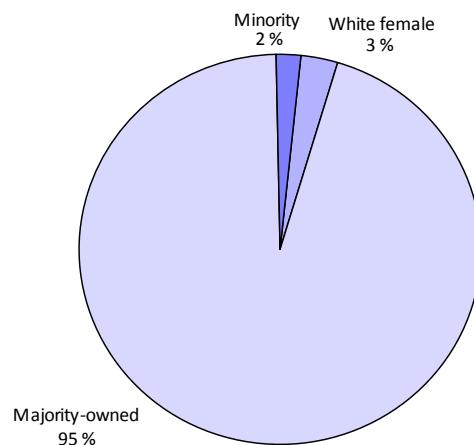
**Figure 3-5.**  
Dun & Bradstreet data on ownership of public works subsector businesses in Dane County, 2014.

Note:

Data include all firms in public works subsector in Dane County with working phone numbers.

Source:

Keen Independent Research study team from 2014 Dun & Bradstreet database.





**Keen Independent survey of businesses qualified and interested in City public works construction projects.** Keen Independent conducted telephone interviews with the firms discussed above to ask whether those firms were, in fact, qualified and interested in City of Madison public works contracts (as a prime contractor, subcontractor, trucking firm or materials supplier). Appendix D provides detailed information about the data sources, steps and results for the telephone survey.

In total, 145 companies indicated qualifications and interest in City public works contracts. Two percent of those businesses were minority-owned, very consistent with other results for Dane County construction firms. Seven percent of those companies were white women-owned, higher than found for other subsets of Dane County construction businesses.

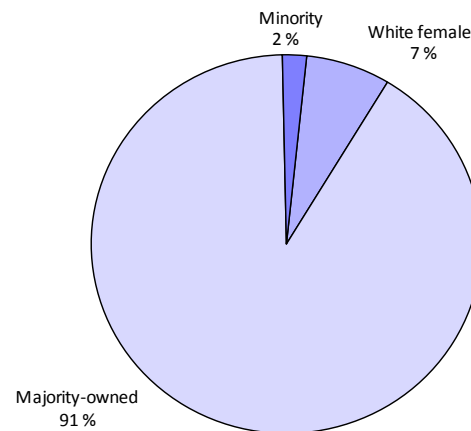
**Figure 3-6.**  
**Ownership of firms in Dane County**  
**available for City public works contracts,**  
**2014.**

**Note:**

Data include all firms indicating qualifications and interest in City public works projects.

**Source:**

Keen Independent Research study team from 2014  
Availability Telephone Interviews.



**Statistical models of business ownership rates.** Researchers have examined whether there are disparities in business ownership rates after considering certain personal characteristics of business owners such as education and age. Several studies have found that disparities in business ownership for women and minorities still exist across the country and by region even after accounting for such race- and gender-neutral factors.

The Keen Independent study team developed statistical models (“regression models”) that examined whether non-race and gender factors such as age and education could explain differences in business ownership rates. Because of the small size of the data set for Dane County, the study team used data for the state and controlled for a Dane County residence. Results showed that neutral factors did not explain disparities in business ownership rates for African Americans, Hispanic Americans and females in 2000. In other words, African Americans, Hispanic Americans and females working in construction in 2000 were less likely to own businesses than non-minorities and males with similar personal characteristics. Model results were mixed for 2008-2012.

**Analysis of business failure rates.** Another reason there may be relatively few minority-owned firms is higher failure rates for those firms compared with majority-owned firms. A 2010 U.S. Small Business Administration study analyzed business closure rates between 2002 and 2006 for minority- and non-Hispanic white-owned firms by state, including Wisconsin.

- About 39 percent of African American-owned firms that were operating in Wisconsin in 2002 had closed by the end of 2006, a higher rate than non-Hispanic white-owned firms (25%).
- Hispanic American- (29%) and Asian American-owned firms (30%) also had closure rates that were higher than that of non-Hispanic white-owned firms.

The results for Wisconsin are for all firms, not just construction firms, but national results for the construction industry show consistent results (see Appendix H).

In sum, the disparities in business ownership rates for minorities and females working in construction are substantial and some analyses for the local marketplace find that those disparities are related to race, ethnicity and gender rather than other personal characteristics. This is consistent with national research.

**Qualitative information about starting a construction business in Dane County.** Some business owners and trade association representatives in the Madison area reported that there were race and gender barriers to starting a business for minorities and women working in the local industry. One interviewee said that discrimination made minorities and women less likely to take on the risk of business ownership. One interviewee reported that some women business owners in contracting feared for their physical safety because of men on worksites who felt women did not belong on the construction site.

**Access to capital to start and operate a business.** One of the reasons behind relatively low business ownership rates and higher closure rates might be access to capital necessary to start a business and sustain its operation. Research has shown that on average, minority- and women-owned businesses have less start-up capital than majority-owned and male-owned businesses (see Appendix G).

There is evidence that minorities and women continue to face certain disadvantages in accessing capital that is necessary to start, operate, and expand businesses.

- Fewer minorities in Dane County own homes compared with non-Hispanic whites. African Americans, Hispanic Americans, and Native Americans who do own homes tend to have lower home values than non-Hispanic whites.
- High income Asian Americans and Hispanic Americans applying for home mortgages in Dane County have been more likely than non-Hispanic whites to have their applications denied. African American, Hispanic American, and Native American mortgage borrowers in Dane County have been more likely than non-Hispanic whites to be issued subprime loans.

- There is national evidence that African American, Hispanic American, Asian American and female business owners were more likely to have been denied business loan applications than similarly situated non-minorities.
- Study team research identified evidence of higher rates of business loan denials for African Americans and Hispanic Americans in the East North Central Region of the country after controlling for other factors. Statistical models also indicated that African American business owners were more likely to not apply for a loan due to fear of loan denial (after controlling for other factors).
- Among business owners who reported needing business loans, there is evidence that African Americans, Hispanic Americans and Asian Americans are more likely to forgo applying for loans due to fear of denial than similarly-situated non-minorities.

Madison area business owners and trade association representatives interviewed as part of this study indicated the importance of access to capital to start and operate construction businesses. Some interviewees reported continued barriers to business startup capital and access to business financing for minorities and women (see Appendix J).

Financial resources are needed to start businesses and to develop those businesses to the point they can work on public works contracts. Not only is capital needed to purchase equipment, but to cover expenses before being paid for work and to obtain bonding for public sector projects. Access to capital affects the size of projects firms can bid.

Interviewees reported that even established business owners with assets need to personally guarantee their business loans, which further demonstrates the importance of personal wealth to success in business. (Appendix J provides a detailed review of business owner and trade association comments.)

**Conclusions from the analysis of business ownership in construction.** The analysis of business ownership data shows that the percentage of construction businesses owned by minorities and women has increased over the past decade. However, business ownership rates for minorities and women remain lower than that of non-Hispanic whites and lower than one might expect given their respective representation in the construction workforce. Some differences persist after controlling for race- and gender-neutral factors affecting business ownership.

The most recent Census information on business closure rates for Wisconsin shows relatively high rates for firms owned by African Americans, Asian Americans and Hispanic Americans compared with non-minority-owned firms.

### C. Dollar-weighted Availability of MBE/WBEs for City Public Works Contracts

In addition to relatively small numbers of minority- and women-owned firms to participate in City public works contracts, those firms tend to be younger and bid on smaller contracts and subcontracts than majority-owned firms. MBEs and WBEs are also more likely to be in trades such as landscaping or trucking that do not account for a large share of public works contract dollars.

After controlling for firm specialization, bid capacity and whether they work as a prime contractor or subcontractor, one might expect about 0.1 percent of public works contract dollars to go to minority-owned firms and 2.5 percent to go to white women-owned firms (see Appendix D).

One of the results of this analysis was the length of time some local majority-owned public works contractors have been in business — about 25 percent of majority-owned firms started before 1970 (compared with only 7 percent of minority- and women-owned firms). In general, the longer a firm has been in business, the larger and more diversified the firm and the bigger the projects it bids on (see Appendix H). Because of both pre-1970 or post-1970 race and gender discrimination in the local area, or other factors, there are relatively few minority- and women-owned firms today of that longevity.

### D. Relative Success of Minority- and Women-owned Firms in the Local Marketplace

Information about the relative success of minority- and women-owned construction firms in the local marketplace is also important to this study.

**Quantitative information.** Overall, minority- and women-owned construction firms have lower revenue than non-minority and male-owned firms in the local area.

- For example, U.S. Bureau of the Census data for 2007 indicate that average revenue of minority-owned firms is only 56 percent of the average for majority-owned firms. Women-owned firms had average revenue that was just 60 percent of male-owned firms.
- Census of Population data for 2000 and American Community Survey Data for 2008-2012 also show large disparities in earnings for minority and female construction firm owners. After controlling for factors such as age and education, race and gender disparities remain.

Appendix H provides additional information about success of minority- and women-owned businesses in the local construction marketplace.

**Qualitative information.** Interviews with business owners and trade association representatives indicated disadvantages for small businesses in general in the local marketplace, from accessing financing to some evidence of race and gender discrimination affecting opportunities for minority- and women-owned construction businesses in the Madison area. One interviewee said that there are very few minority-owned firms in the community now and those that exist are small and trying to get a footing in a marketplace where they must compete against much larger firms. “The larger firms have better capital, networking ... and connections to get contracts.”

Interviewees discussed the importance of networks and some said that a “good ol’ boy network” exists that affects opportunities for minority- and women-owned firms. Others said that there was not such a network, but that known companies have an advantage getting work over unknown businesses. Appendix J provides a detailed analysis of this information.

### **E. Summary of Marketplace Conditions and Availability of Minority- and Women-owned Firms**

There is evidence of barriers to entry into the Dane County construction industry for minorities and women. There are also fewer minority and female construction business owners than what one might expect based on representation of minorities and women among construction workers. Study team research found evidence that some of these barriers are race-, ethnicity- and gender-specific.

As a result, minority- and women-owned firms comprise a relatively small number of firms available for City public works contracts. And, relatively few of those minority- and women-owned firms bid on the largest prime contractors or subcontracts and are in construction specializations that account for the most dollars of City work. Analysis of the local construction marketplace shows that minority- and women-owned firms in the local marketplace generally have lower revenues than majority-owned firms.

Chapter 4, which follows, compares the City’s utilization of minority- and women-owned firms in public works contracts with what one might expect based on the current availability of MBEs and WBEs to perform this work.