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Who Gets Construction Jobs and Where? Employment of African Americans, Hispanics and Total Minorities in the Construction Industry and Construction Trades in the Milwaukee MSA


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Who Gets Construction Jobs and Where? Employment of African Americans, Hispanics and Total Minorities in the Construction Industry and Construction Trades in the Milwaukee MSA

Prepared by the
Employment and Training Institute
University of Wisconsin-Milwaukee

2006

Available online at www.eti.uwm.edu

Who Gets Construction Jobs and Where? Employment of African Americans, Hispanics and Total Minorities in the Construction Industry and Construction Trades in the Milwaukee MSA

This report uses three decades of U.S. Census data to assess employment patterns in the construction sector and construction trades in the City of Milwaukee, Milwaukee County, and the four-county Milwaukee MSA. The findings are presented using three separate sets of analysis.

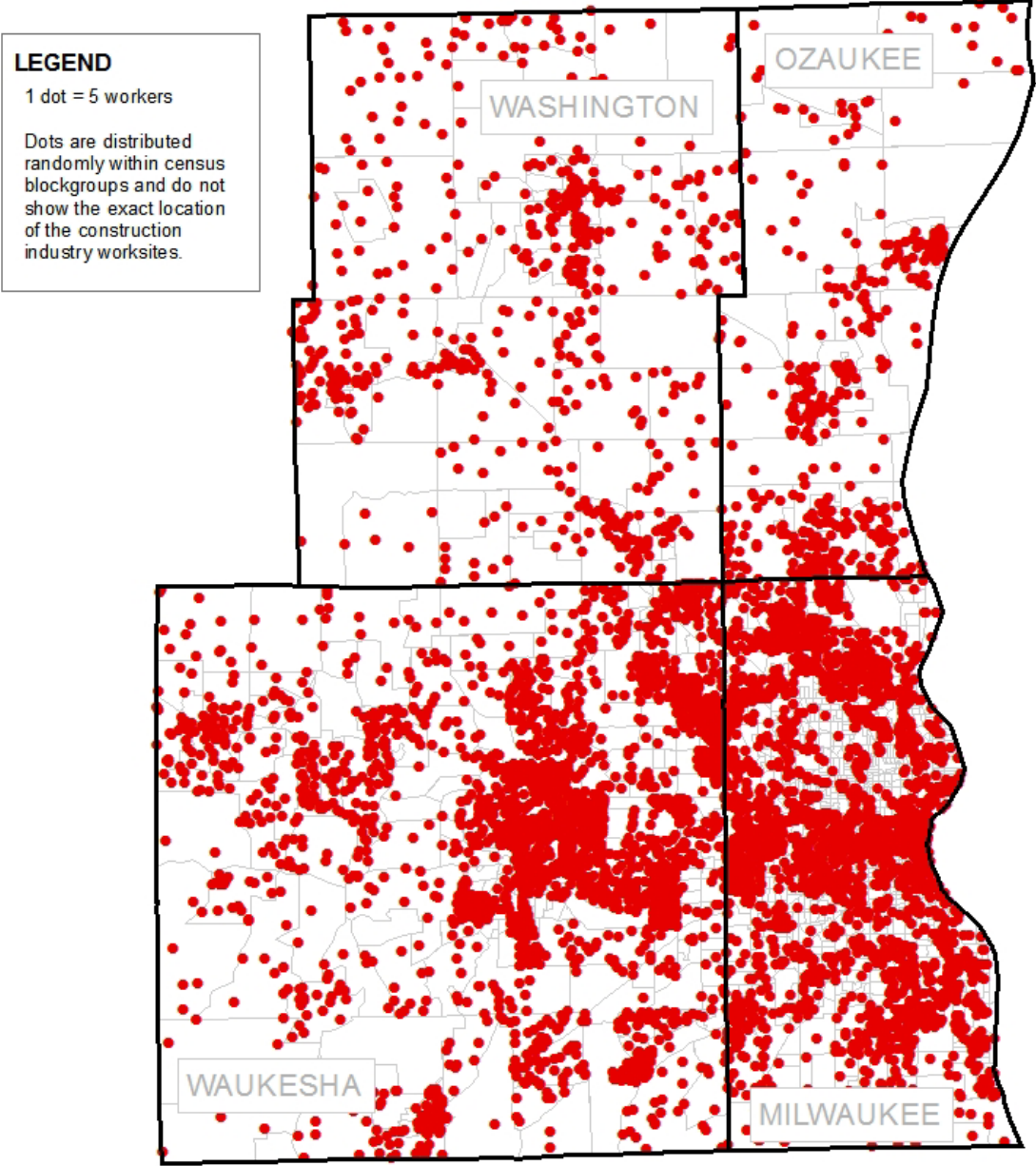
- Historical participation of African Americans and Hispanics in construction occupations are tracked for 1980, 1990 and 2000, using **Census Special Equal Employment Opportunity (EEO) Tabulation files**. These special census runs are used for affirmative action planning and federal contract compliance and provide estimates of resident workers by occupations and race/ethnicity for skilled construction work, 1980-2000.
- Worksite analysis and maps using Census 2000 place-of-work data only recently made available show **where** whites, African Americans, and Hispanic workers are employed. Worksite employment is analyzed by race and ethnicity using **place-of-work special tables from the Census Transportation Planning Package (CTPP2000)**, released in 2004 and 2005. These data files allow a first-time examination of census place-of-work data from the perspective of central city neighborhoods and racial/ethnic groups.
- Analysis by race and ethnic origin of the workers employed at the top 10 construction industry worksites, using place-of-work data at the census tract level. **Place-of-work report cards** examine the employment rates for African Americans, Hispanics and total minorities at large individual construction company worksites in the metro area and compare the employment rates at jobsites within the City of Milwaukee to jobsites in outlying counties.

Data are reported for whites, African Americans, Hispanics, and total minorities residing or working in the four-county Milwaukee MSA (i.e., Milwaukee, Ozaukee, Washington and Waukesha counties). The relatively small numbers of Asian Americans and Native Americans in specific occupations and working at Milwaukee area jobsites were not analyzed separately due to concerns related to census sampling error. (See Methodology section for more detail.) A companion study by the Employment and Training Institute and the NAACP provides a **Report Card on Minority and Female Participation in Construction Trade Apprentices in the Milwaukee Area** (*online at www.eti.uwm.edu*) for 475 Milwaukee area companies and 16 joint apprenticeship committees.

Findings

1. Employment of African Americans in the major construction trades (i.e., electricians, carpenters, plumbers, brickmasons) have shown little if any improvement while Hispanics have shown notable increases in two of these four top construction trades.
2. Very few African Americans have access to construction jobs outside of the City of Milwaukee, while large numbers of white construction workers are employed at worksites throughout the metro area. The maps below show the location of jobs held by whites, African Americans and Hispanics employed by construction firms at the time of the 2000 Census. Worksites are identified by block groups using the Census Transportation Planning Package (CTPP2000) data files.

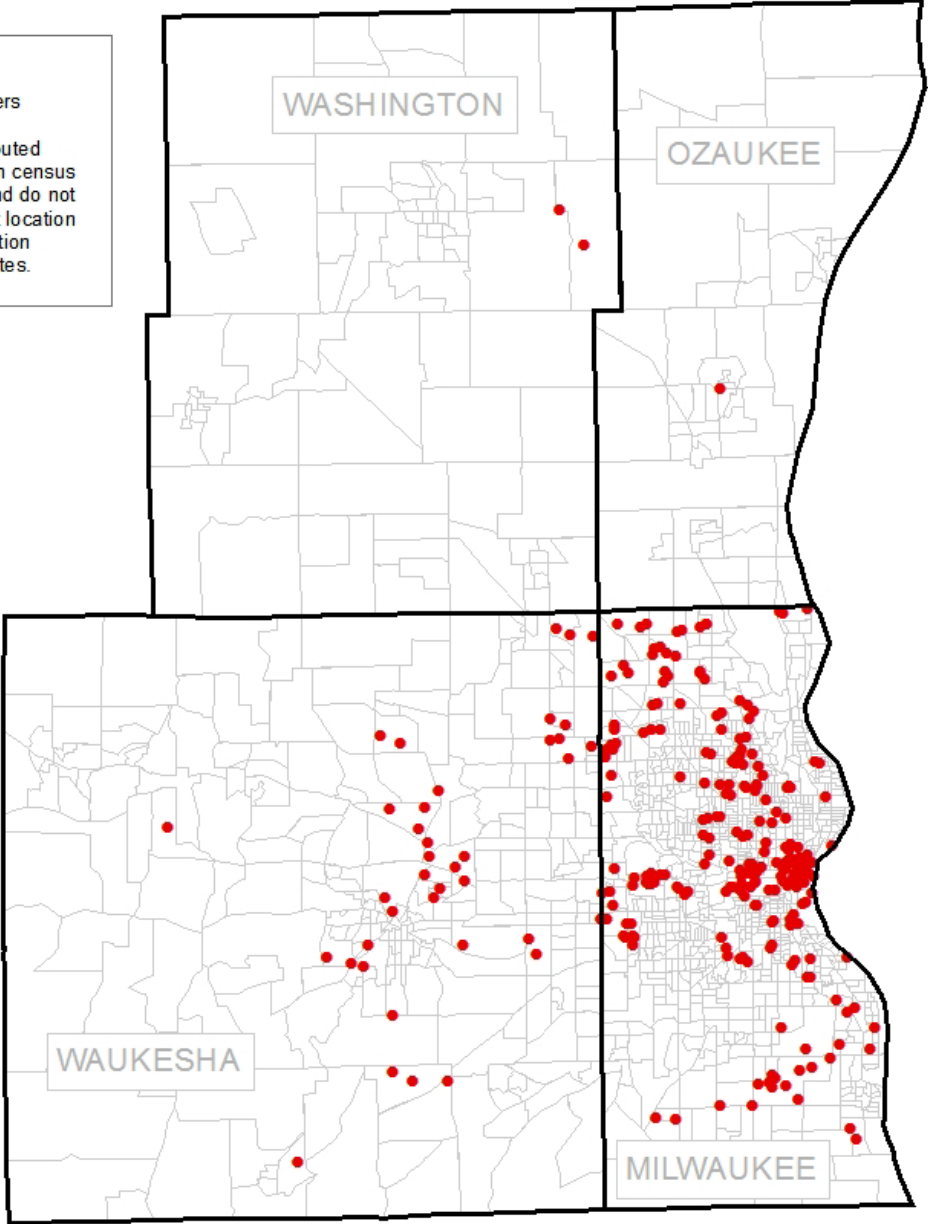
Place of Work for Whites in the Construction Industry



Source: U.S. Census 2000 Census Transportation Planning Package (CTPP2000) data files.

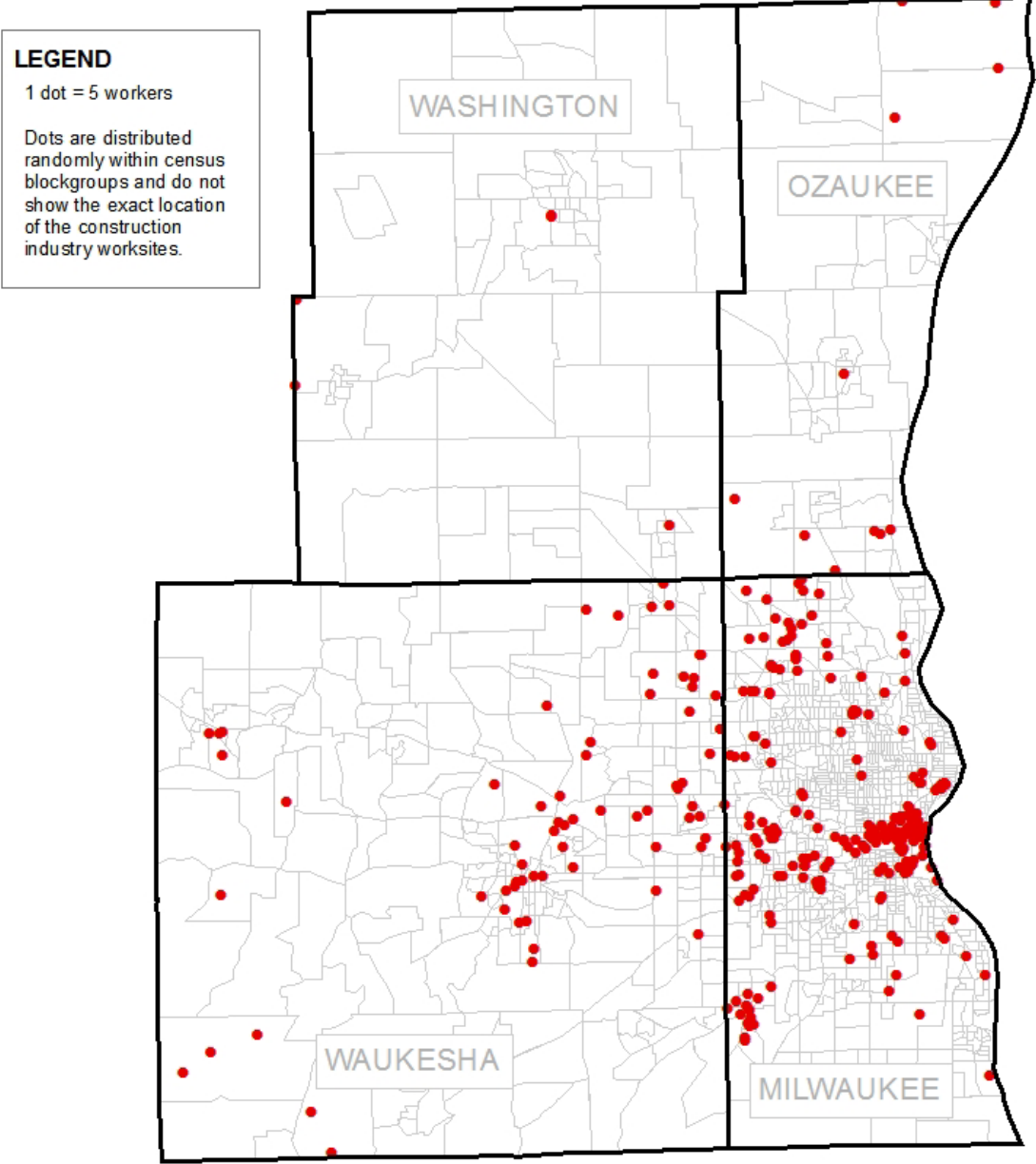
Place of Work for Blacks in the Construction Industry

LEGEND
1 dot = 5 workers
Dots are distributed randomly within census blockgroups and do not show the exact location of the construction industry worksites.



Source: U.S. Census 2000 Census Transportation Planning Package (CTPP2000) data files.

Place of Work for Hispanics in the Construction Industry



Source: U.S. Census 2000 Census Transportation Planning Package (CTPP2000) data files.

3. Analysis of the top ten construction industry sites in the metro area showed very different participation rates for minorities by geography. The four largest construction industry jobsites in Milwaukee (the Menomonee Valley, far northwest side, city hall area, and Third Ward area) showed 17% to 21% employment of minorities, while the six largest jobsites in Waukesha County (in Pewaukee, New Berlin, Waukesha, Menomonee Falls, and Brookfield) showed only 2% to 9% employment of minorities.
4. Only 164 African Americans, 124 Hispanics, and 107 other minorities held occupations as first-line supervisors or construction managers for construction firms in the Milwaukee MSA. The vast majority (93%) of the 5,435 construction supervisors and managers in the Milwaukee MSA were white.
5. Minorities were most likely to be employed as construction laborers and helpers, where they made up 25% of the workforce in 2000. In the Milwaukee MSA, only 12% of skilled construction workers (e.g., carpenters, electricians, plumbers, sheet metal workers, etc.) were minorities.

Findings for African Americans

6. While the African American workforce has increased 43% in the last two decades to a total of 90,243 workers in 2000, African American employment in major construction trades has shown little change and in some cases has worsened in the Milwaukee MSA.
 - The number of African American **electricians** declined from 150 in 1980 to 110 in 2000, and the percentage of electricians in the metro area who are African Americans dropped from 4.2% to 2.9%.
 - The number of African American **carpenters** grew from 191 in 1980 to 265 in 2000, but the percentage of carpenter jobs held by African Americans rose less than ½ of one percent from 4.0% to 4.4%.
 - The number of African American in the **plumbers, pipefitters, pipelayers, and steamfitters** occupations rose from 48 in 1980 to 94 in 2000, increasing the percentages of African Americans for these occupations from 2.1% in 1980 to 4.4% in 2000.
 - The number of African American **brickmasons and stonemasons** declined from 95 in 1980 to 79 in 2000. The percentage of brickmasons and stonemasons who were African American also declined from 7.1% to 6.5%.
7. African Americans have limited access to construction jobs in the counties adjoining Milwaukee County.
 - Only 1%, or 197 of 19,903 construction industry jobs in Waukesha, Ozaukee, and Washington counties (the WOW counties) were held by African Americans in 2000.
 - Even in the Milwaukee County suburbs, only 3.4% of the 7,339 construction company jobs were held by African Americans in 2000.

- In the City of Milwaukee, 8.2% of the 11,370 construction company jobs were held by African Americans.

Findings for Hispanics

8. The Hispanic workforce has increased 156% from 1980 to 2000, for a total of 39,442 Hispanic workers in the Milwaukee MSA. Employment in the construction trades has also increased in some trades while showing no improvement in others.
 - The number of Hispanic **electricians** rose from 46 in 1980 to 124 in 2000, and the percentage of electricians who were Hispanics rose from 1.3% to 3.3% by 2000.
 - The number of Hispanic **carpenters** jumped from 67 in 1980 to 340 in 2000 and the Hispanic workers' share of these occupations rose from 1.4% to 5.6%.
 - The number and percentages of Hispanics who were **plumbers, pipelayers, pipefitters and steamfitters** showed almost no change with only 30 in 1980 and 35 in 2000.
 - There were no Hispanic **brickmasons and stonemasons** reported in 1980. By 2000, 65 Hispanic brickmasons and stonemasons were listed, making up 5.3% of these workers.

Findings for the City of Milwaukee

9. Although African Americans made up 30 percent of the City of Milwaukee's workforce (and 34% of the City's adult working-age population), African Americans held only 8% of the 11,370 jobs at construction industry worksites located within the City of Milwaukee at the time of the 2000 Census. Hispanics made up 10 percent of the City's workforce (and 11% of the City's adult working-age population) and held 6% of the jobs at construction industry worksites located within the City.
10. African Americans were employed at their highest levels on the City's northside (where held 8.9% of the 6,019 jobs at construction industry worksites) and in downtown Milwaukee (where they held 8.8% of the 1,745 jobs at construction industry worksites). Their lowest rates of construction employment were in Waukesha, Ozaukee and Washington counties, where African Americans held less than 1% of the 19,903 jobs estimated at construction industry worksites.
11. Hispanics were employed at their highest levels in the Menomonee Valley (where they held 9.9% of the 1,160 jobs at construction industry worksites) and on the City's southside (where they held 7.8% of the 2,446 jobs at construction firms' worksites).
12. The City of Milwaukee offers the backbone of employment for African Americans employed with construction firms in the metro area. At the time of the 2000 Census, two-thirds (68%) of construction industry jobs held by African Americans in the metro area were located at worksites within the City of Milwaukee and 85% of their jobs were located within Milwaukee County. About half (49%) of jobs for Hispanics on construction company worksites were in the City of Milwaukee and 71% were on worksites within Milwaukee County. By contrast, white workers showed high levels of employment at construction company jobsites throughout the metro area.

Findings for Minority Women

13. Minority women have made almost no progress in securing employment in construction occupations. The EEO file estimates that as of 2000 only 129 African American women worked in construction occupations in the four-county Milwaukee MSA, accounting for less than 1% of all construction jobs.
14. Similarly, only 44 Hispanic women were estimated as working in construction, or 0.1% of the total construction workers in the metro area.
15. Most of the women in construction work were white. The number of white women in construction work more than doubled from 1980 to 2000, but still totaled only 3.1% of construction jobs.

Gender and Race/Ethnicity of Construction Workers in the Milwaukee MSA 1980, 1990 and 2000 Census (EEO Files)

Construction Occupations in EEO File	Total Workers in Milwaukee MSA			Percent of Total		
	1980	1990	2000	1980	1990	2000
Total Workers in Construction Occupations	25,391	27,539	33,195	100.0%	100.0%	100.0%
Males	24,941	26,822	31,885	98.2%	97.4%	96.1%
Whites	23,259	24,022	27,865	91.6%	87.2%	83.9%
African Americans	1,036	1,780	1,813	4.1%	6.5%	5.5%
Hispanics	453	681	1,656	1.8%	2.5%	5.0%
Others	193	339	551	0.8%	1.2%	1.7%
Females	450	717	1,237	1.8%	2.6%	3.7%
Whites	370	574	1,017	1.5%	2.1%	3.1%
African Americans	75	120	129	0.3%	0.4%	0.4%
Hispanics	0	8	44	0.0%	0.0%	0.1%
Others	5	15	47	0.0%	0.1%	0.1%

Source: Census Special EEO Tabulations for residents of Milwaukee, Ozaukee, Washington and Waukesha counties. Numbers and percentages may not total due to estimation techniques used. Census questions related to race/ethnicity changed from 1980-2000, and the EEO Tabulations made some adjustments to definitions of construction occupations. (See Methodology)

I. Current Availability of African Americans and Hispanics in the Construction Trades

The U.S. Census 2000 Special EEO Tabulation files, released in December 2003, provide estimates of the number of workers available in individual occupations, based on household responses to the census long-form. The tables below show the breakdown by racial/ethnic groups for whites, African Americans, Hispanics, and other minorities (which includes Asians, Native Americans, and persons identifying with more than one racial group). These include persons ages 16 and older employed at the time of the census or actively seeking work. (See Methodology.)

**Race/Ethnicity of Construction Workers in the Milwaukee MSA,
2000 Census (EEO File)**

Occupation	Total	Whites	African Americans	Hispanics	Other
<u>Supervisors</u>					
First-line supervisors/managers	2,855	2,625	90	75	65
Construction managers	2,580	2,415	74	49	42
<u>Skilled Trades</u>					
Carpenters	6,055	5,345	265	340	105
Electricians	3,735	3,430	110	124	71
Plumbers, pipelayers, pipefitters, steamfitters	2,140	1,985	94	35	26
Sheet metal workers	1,250	1,165	20	35	30
Brickmasons, blockmasons, stonemasons	1,215	1,070	79	65	1
Roofers	1,015	815	60	100	40
Cement masons, concrete finishers, terrazzo workers	460	340	74	30	16
Iron and steel workers	445	410	10	20	5
Glaziers	120	94	10	4	12
<u>Other Skilled/Semi-Skilled Work</u>					
Painters in construction and maintenance	2,530	2,075	315	90	50
Misc. construction equipment operators	1,135	994	90	34	17
Carpet, floor and tile installers and finishers	955	909	0	44	2
Drywall installers, ceiling tile installers, tapers	750	550	64	100	36
Highway maintenance workers	464	425	35	4	0
Construction and building inspectors	345	325	0	4	16
Insulation and hazardous materials removal workers	250	175	40	20	15
Elevator installers and repairers	125	125	0	0	0
Paperhangers	110	110	0	0	0
Miscellaneous and other*	511	380	72	53	6
<u>Laborers and Helpers</u>					
Construction laborers	3,910	2,965	410	440	95
Helpers, construction trades	240	155	30	34	21
ALL CONSTRUCTION OCCUPATIONS	33,195	28,882	1,942	1,700	671

*Includes plasters and stucco masons; septic tank services and sewer pipe cleaners; paving, surfacing and tamping equipment operators; fence erectors; boilermakers; and miscellaneous construction and related workers.

Source: Census 2000 Special EEO Tabulations for residents of Milwaukee, Ozaukee, Washington and Waukesha counties.

- Only 164 African Americans, 124 Hispanics, and 107 other minorities held occupations as first-line supervisors or construction managers in the Milwaukee MSA. The vast majority (93%) of construction supervisors and managers were white.

- Minorities were most likely to be employed as construction laborers and helpers, where they made up 25% of the workforce. In the Milwaukee MSA, 12% of the skilled construction workers (e.g., carpenters, electricians, plumbers, etc.) were minorities.
- Even though the total African American labor force increased by 43% in the last two decades, the numbers of African Americans in the skilled construction trades remain very low. The Census estimates of African American workers by occupations showed only 315 African American painters (out of a total of 2,530); 265 carpenters (out of 6,055); 110 electricians (out of 3,735); 94 plumbers, pipefitters, and steamfitters (out of 2,140); 79 brickmasons, blockmasons, and stonemasons (out of 1,215); 60 roofers (out of 1,015) in the metro area; and 20 sheet metal workers (out of 1,250).
- Hispanics were underrepresented in a number of the skilled and semi-skilled trades, e.g., as plumbers/pipefitters/steamfitters, brickmasons, iron and steel workers, and highway maintenance workers.

**Percentage Distribution of Construction Workers in the Milwaukee MSA
By Race/Ethnicity, 2000 Census (EEO File)**

Occupation	Total	Whites	African Americans	Hispanics	Other
<u>Supervisors</u>					
First-line supervisors/managers	2,855	91.9%	3.2%	2.6%	2.3%
Construction managers	2,580	93.6%	2.9%	1.9%	1.6%
<u>Skilled Trades</u>					
Carpenters	6,055	88.3%	4.4%	5.6%	1.7%
Electricians	3,735	91.8%	2.9%	3.3%	1.9%
Plumbers, pipelayers, pipefitters, steamfitters	2,140	92.8%	4.4%	1.6%	1.2%
Sheet metal workers	1,250	93.2%	1.6%	2.8%	2.4%
Brickmasons, blockmasons, stonemasons	1,215	88.1%	6.5%	5.3%	0.1%
Roofers	1,015	80.3%	5.9%	9.9%	3.9%
Cement masons, concrete finishers, terrazzo workers	460	73.9%	16.1%	6.5%	3.5%
Iron and steel workers	445	92.1%	2.2%	4.5%	1.1%
Glaziers	120	78.3%	8.3%	3.3%	10.0%
<u>Other Skilled/Semi-Skilled Work</u>					
Painters in construction and maintenance	2,530	82.0%	12.5%	3.6%	2.0%
Misc. construction equipment operators	1,135	87.6%	7.9%	3.0%	1.5%
Carpet, floor and tile installers and finishers	955	95.2%	0.0%	4.6%	0.2%
Drywall installers, ceiling tile installers, tapers	750	73.3%	8.5%	13.3%	4.8%
Highway maintenance workers	464	91.5%	7.6%	0.9%	0.0%
Construction and building inspectors	345	94.2%	0.0%	1.2%	4.6%
Insulation and hazardous materials removal workers	250	70.0%	16.0%	8.0%	6.0%
Elevator installers and repairers	125	100.0%	0.0%	0.0%	0.0%
Paperhangers	110	100.0%	0.0%	0.0%	0.0%
Miscellaneous and other*	511	74.4%	14.1%	10.4%	1.1%
<u>Laborers and helpers</u>					
Construction laborers	3,910	75.8%	10.5%	11.3%	2.4%
Helpers, construction trades	240	64.6%	12.5%	14.2%	8.8%
ALL CONSTRUCTION OCCUPATIONS	33,195	87.0%	5.9%	5.1%	2.0%

Source: Census 2000 Special EEO Tabulations for residents of Milwaukee, Ozaukee, Washington and Waukesha counties.

II. Current Availability of Women in the Construction Trades

Very few women hold construction occupations, according to the 2000 Census EEO file. The EEO reported only 220 minority women holding construction occupations, compared to 1,017 white women.

Female Construction Workers in the Milwaukee MSA, 2000 Census (EEO File)

<u>Occupation</u>	<u>Total Workers</u>	<u>Females</u>	<u>% Female</u>
<u>Supervisors</u>			
First-line supervisors/managers	2,855	95	3.3%
Construction managers	2,580	234	9.1%
<u>Skilled Trades</u>			
Carpenters	6,055	124	2.0%
Electricians	3,735	109	2.9%
Plumbers, pipelayers, pipefitters, steamfitters	2,140	54	2.5%
Sheet metal workers	1,250	15	1.2%
Brickmasons, blockmasons, stonemasons	1,215	14	1.2%
Roofers	1,015	25	2.5%
Cement masons, concrete finishers, terrazzo workers	460	4	0.9%
Iron and steel workers	445	15	3.3%
Glaziers	120	4	3.3%
<u>Other Skilled/Semi-Skilled Work</u>			
Painters in construction and maintenance	2,530	145	5.7%
Misc. construction equipment operators	1,135	24	2.1%
Carpet, floor and tile installers and finishers	955	4	0.4%
Drywall installers, ceiling tile installers, tapers	750	4	0.5%
Highway maintenance workers	464	30	6.5%
Construction and building inspectors	345	80	23.2%
Insulation and hazardous materials removal workers	250	29	11.6%
Elevator installers and repairers	125	0	0.0%
Paperhangers	110	45	40.9%
Miscellaneous and other*	511	14	2.7%
<u>Laborers and Helpers</u>			
Construction laborers	3,910	149	3.8%
Helpers, construction trades	240	20	8.3%
ALL CONSTRUCTION OCCUPATIONS	33,195	1,237	3.7%

*Includes plasters and stucco masons; septic tank services and sewer pipe cleaners; paving, surfacing and tamping equipment operators; fence erectors; boilermakers; and miscellaneous construction and related workers.

Source: Census 2000 Special EEO Tabulations for residents of Milwaukee, Ozaukee, Washington and Waukesha counties.

III. Growth of the Minority Labor Force in Metro Milwaukee, 1980 - 2000

The Milwaukee MSA is experiencing dramatic demographic changes in its labor force. As an older predominantly white population is retiring, newer labor force entrants are increasingly racial minorities. From 1980 to 2000, the number of whites in the labor force declined by 2%, for a net decrease of 12,804 white workers in the four-county Milwaukee MSA. These declines were offset by a net increase of 27,276 African American workers (who showed a 43% increase in workforce participants) and an increase of 24,040 Hispanic workers (who showed a 156% increase). The Asian workforce in metro Milwaukee rose from 3,892 in 1980 to 13,092 two decades later, and the Native American workforce showed growth as well.

Civilian Labor Force in the Milwaukee MSA, 1980-2000

Civilian Labor Force	1980	1990	2000	Change, 1980-2000	% Change, 1980-2000
Whites	639,797	638,187	626,993	-12,804	-2.0%
African Americans	62,967	75,654	90,243	+27,276	+43.3%
Hispanics	15,402	19,966	39,442	+24,040	+156.1%
Asians	3,892	7,295	13,092	+9,200	+236.4%
Native Americans	2,927	3,761	4,132	+1,205	+41.2%
Other**	462	247	8,076	**	**
Total workforce	724,985	744,863	773,902	+48,917	+6.7%

**In 2000, the other category includes non-Hispanic persons who reported themselves to be more than one race. See the Census website (www.census.gov) for changes in the questions used to measure race/ethnicity in 1980, 1990 and 2000.

IV. Changes in Numbers of Minorities in Skilled and Semi-Skilled Construction Occupations

The preparation and employment of African Americans, Hispanics and other minorities in the skilled trades will be critical if the local workforce is to obtain their share of higher-paying jobs in the construction industry. The analysis below examines changes in the numbers of workers in selected construction trades from 1980 to 2000.

Note: While the decennial long-form, distributed to one in six U.S. households, represents the largest survey of U.S. workers, it may miss employment of minorities and women in some construction occupations – particularly where women and/or minorities comprise a very small proportion of the labor force.

Electricians

1970 Census tables were not available by race/ethnicity for the Milwaukee MSA for electricians.

In the 1980 Census, the number of electricians (including apprentices) totaled 3,584, of which 150 (4.2%) were African Americans and 46 (1.3%) were Hispanics.

By the 1990 Census, electricians in the Milwaukee MSA numbered 3,263, of which 109 (3.3%) were African Americans and 38 (1.2%) were Hispanics.

In 2000, the number of electricians in the MSA was up to 3,735, but with only 110 (2.9%) African Americans and 124 (3.3%) Hispanics.

The condition of African Americans employed as electricians has worsened numerically and as a percent of the total population of electricians in the area. Hispanics have seen modest increases to 3.3% of those in this trade.

Over the last two decades from 1980 to 2000, the number of white electricians showed a net increase of 76, compared to a net decrease of 40 for African Americans and a net increase of 78 for Hispanics.

Electricians in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change,1980-2000
Total	3,584	100.0	3,263	100.0	3,735	100.0	+151
Whites	3,354	93.6	3,099	95.0	3,430	91.8	+76
African Americans	150	4.2	109	3.3	110	2.9	-40
Hispanics	46	1.3	38	1.2	124	3.3	+78
Other non-whites	34	0.9	17	0.5	71	1.9	+37

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Carpenters

In 1970 the U.S. Census reported 3,530 carpenters (including apprentices and self-employed persons) living in the four-county Milwaukee area. The published tables did not detail the number of minority carpenters in the MSA for 1970. However, a special census analysis of City of Milwaukee low-income areas listed 142 African American carpenters, or at least 4% of the total (with an unknown number of African American carpenters living in the remainder of the City of Milwaukee or the MSA).

By 1980 the number of carpenters had increased to 4,781, of which 191 (or 4.0%) were African Americans and 67 (1.4%) were Hispanics.

In 1990 the Census listed 5,744 carpenters in the MSA, of which 221 (3.8%) were African Americans and 94 (1.6%) were Hispanics.

By the 2000 Census, the number of carpenters in the MSA had risen to 6,055, of which 265 (4.4%) were African Americans and 340 (5.6%) were Hispanics.

The employment situation appears to have increased only marginally for African Americans, with their share of this workforce moving from 4.0% in 1980 to 4.4% in 2000.

Published tables did not detail the number of Hispanic carpenters in 1970. Subsequent census counts showed 67 Hispanic carpenters in the Milwaukee MSA in the 1980 Census, 94 in the 1990 Census, and 340 in the 2000 Census. Hispanics now make up 5.6% of carpenters living in the MSA.

Carpenters in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change,1980-2000
Total	4,781	100.0	5,744	100.0	6,055	100.0	+1,274
Whites	4,510	94.3	5,357	93.3	5,345	88.3	+835
African Americans	191	4.0	221	3.8	265	4.4	+74
Hispanics	67	1.4	94	1.6	340	5.6	+273
Other non-whites	13	0.3	72	1.3	105	1.7	+92

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Plumbers, Pipelayers, Pipefitters and Steamfitters

1970 Census tables were not available by race/ethnicity for the Milwaukee MSA for plumbers, pipelayers, pipefitters, or steamfitters. In the 1980 to 2000 censuses these occupations are combined.

In the 1980 Census, the number of plumbers, pipefitters and steamfitters in the MSA totaled 2,321, of which 48 (2.1%) were African Americans and 30 (1.3%) were Hispanics.

By the 1990 Census, the number of workers in these occupations declined to 2,023, including 55 African Americans (2.7%) and 42 Hispanics (2.1%).

In the 2000 Census, 2,149 plumbers, pipelayers, pipefitters and steamfitters were listed for the MSA, of which 94 (4.4%) were African Americans and 35 (1.6%) were Hispanics.

A very modest improvement was seen in the percentages in these occupations who were African Americans, while the numbers of Hispanics in these occupations remained virtually flat.

Plumbers, Pipelayers, Pipefitters and Steamfitters in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change,1980-2000
Total	2,321	100.0	2,023	100.0	2,149	100.0	-181
Whites	2,243	96.6	1921	95.0	1985	92.8	-258
African Americans	48	2.1	55	2.7	94	4.4	+46
Hispanics	30	1.3	42	2.1	35	1.6	+5
Other non-whites	0	0.0	5	0.2	26	1.2	+26

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Brickmasons and Stonemasons

In the 1980 Census, the number of brickmasons and stonemasons totaled 1,336 for the Milwaukee MSA, including 95 (7.1%) who were African Americans. In 1980 the Census listed no Hispanics in this occupational area.

The 1990 Census reported a decline in brickmasons and stonemasons, down to 956 of which only 15 were reported as African Americans (1.6% of the total) and 17 were listed as Hispanics (1.8% of the total).

In 2000, the number of brickmasons and stonemasons was estimated at 1,215, including 79 African Americans (6.5% of the total) and 65 Hispanics (5.3%).

Over the two decades, African Americans showed numerical and percentage declines in these occupations. Hispanics obtained an estimated 17 jobs as brickmasons and stonemasons from 1980 to 1990 and gained 38 more jobs from 1990 to 2000.

Brickmasons and Stonemasons in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	1,336	100.0	956	100.0	1,215	100.0	-121
Whites	1,217	91.1	919	96.1	1,070	88.1	-147
African Americans	95	7.1	15	1.6	79	6.5	-16
Hispanics	0	0.0	17	1.8	65	5.3	+65
Other non-whites	24	1.8	5	0.5	1	0.1	-23

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Painters, construction and maintenance

The Census reported an increase in the number of persons listing their occupations as painters in construction or maintenance. The percentage of painters who are African American dropped from 6.6 percent in 1980 to 12.2 percent in 2000. The percentage of painters who are Hispanic rose from 1.8% in 1980 to 3.7% in 2000.

Painters (Construction and Maintenance) in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	2,049	100.0	2,747	100.0	2,535	100.0	+486
Whites	1,849	90.2	2,199	80.1	2,073	81.8	+224
African Americans	134	6.6	350	12.7	309	12.2	+175
Hispanics	37	1.8	146	5.3	94	3.7	+57
Other non-whites	29	1.4	52	1.9	59	2.3	+30

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Roofers

The Census reported 1,015 roofers in the metro area, of which 60 were African Americans and 100 were Hispanics. Hispanics have shown significant growth in their field.

Roofers in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	823	100.0	985	100.0	1,015	100.0	+192
Whites	715	86.9	866	87.9	815	80.3	+100
African Americans	44	5.4	35	3.6	60	5.9	+16
Hispanics	30	3.6	17	1.7	100	9.9	+70
Other non-whites	34	4.1	67	6.8	40	3.9	+6

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Carpet, Floor and Tile Installers

Whites captured nearly all of the increase in carpet, floor and tile installers, while African Americans showed no growth in this field.

Carpet, Floor and Tile Installers in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	596	100.0	926	100.0	955	100.0	+359
Whites	585	98.3	881	95.1	909	95.2	+323
African Americans	0	0.0	18	1.9	0	0.0	0
Hispanics	10	1.7	27	2.9	44	4.6	+34
Other non-whites	0	0.0	0	0.0	2	0.2	+2

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Insulation and Hazardous Materials Removal Workers

The Census reported declines in the number of African Americans working as insulation and hazardous materials removal workers since 1990. Both African Americans and Hispanics showed low numbers in this work.

Insulation and Hazardous Materials Removal Workers in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	199	100.0	450	100.0	250	100.0	+51
Whites	161	80.9	316	70.2	175	70.0	+14
African Americans	15	7.5	108	24.0	40	16.0	+25
Hispanics	23	11.6	14	3.1	20	8.0	-3
Other non-whites	0	0.0	12	2.7	15	6.0	+15

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

Drywall Installers, Ceiling Tile Installers, Tapers

Both Hispanics and African Americans have seen an increase in work as drywall installers, ceiling tile installers, and tapers in the Milwaukee metro area.

Drywall Installers, Ceiling Tile Installers, and Tapers in the Milwaukee MSA: 1980-2000

Race/Ethnicity	1980	%	1990	%	2000	%	Change, 1980-2000
Total	341	100.0	782	100.0	750	100.0	+409
Whites	327	95.9	724	92.6	550	73.3	+223
African Americans	0	0.0	40	5.1	100	8.5	+100
Hispanics	5	1.5	12	1.5	64	13.3	+59
Other non-whites	9	2.6	6	0.8	36	4.8	+27

Source: U.S. Census Special EEO Tabulation files, 1980-2000.

V. Where Construction Industry Employees Work by Race/Ethnicity in the Metro Area

In the four-county Milwaukee Metropolitan Statistical Area (MSA), the 2000 Census place-of-work data showed a total of 38,512 employees working for construction industry firms at a total of 362 jobsites at the time of the 2000 Census. Jobs for the construction industry are scattered throughout the four-county area, with below half of the workers (48 percent) at sites in Milwaukee County and over half (52 percent) working at jobsites in Waukesha County (14,938 employed), Washington County (2,870 employed), and Ozaukee County (2,095 employed). A majority of the Milwaukee County construction industry employees worked in locations within the City of Milwaukee (11,370 workers), compared to 7,339 in the Milwaukee County suburbs.

- Two-thirds of African Americans employed in the construction industry work at sites in the City of Milwaukee and 85 percent work in Milwaukee County.
- About half (48.6%) of Hispanics employed in the construction industry work at sites in the City of Milwaukee and 71 percent work in Milwaukee County. A significant number of Hispanics (328, or 22%) were employed at worksites in Waukesha County.
- When all worksites are examined for the metro area, 6,019 construction industry jobs were at sites on the north side of Milwaukee, 2,446 on Milwaukee's southside, and 2,905 at sites in downtown Milwaukee or the Menomonee Valley.

Where Construction Industry Employees Work by Race/Ethnicity: Census 2000

<u>Location of Worksites</u>	<u>Total Workers</u>	<u>Total</u>	<u>Whites</u>	<u>African Americans</u>	<u>Hispanics</u>
City of Milwaukee – North Side	6,019	15.6%	14.3%	38.6%	20.1%
City of Milwaukee – Downtown	1,745	4.5%	4.0%	11.1%	8.1%
City of Milwaukee – Valley	1,160	3.0%	2.7%	6.5%	7.7%
City of Milwaukee – South Side	2,446	6.4%	5.8%	11.4%	12.8%
City of Milwaukee (TOTAL)	11,370	29.5%	26.7%	67.6%	48.6%
Milwaukee County suburbs – north	2,698	7.0%	7.0%	6.2%	7.5%
Milwaukee County suburbs – south	4,641	12.1%	11.8%	12.0%	15.6%
Milwaukee County suburbs (Total)	7,339	19.1%	18.8%	18.2%	23.1%
Milwaukee County (TOTAL)	18,509	48.1%	45.1%	85.5%	71.4%
Ozaukee County	2,095	5.4%	5.7%	0.3%	4.3%
Washington County	2,870	7.5%	8.1%	0.7%	1.6%
Waukesha County	14,938	38.8%	40.9%	13.2%	22.0%
Total Milwaukee Metro Area	38,512	100.0%	100.0%	100.0%	100.0%

- As shown below, African-Americans were employed at the highest levels on the City's north side (where they comprised 8.9 percent of the construction industry workforce) and downtown (where they comprised 8.8 percent). The lowest rates of employment were in Ozaukee and Washington counties, where African Americans made up less than 1 percent of the construction industry workforce.

- Hispanics make up a small percentage (3.9%) of the construction industry workforce. Hispanics showed their highest percentages of employment in worksites in the Valley (where they held 9.9% of jobs) and on the south side of Milwaukee (where they held 7.8% of jobs).
- Whites dominated employment at construction industry worksites in Waukesha County (where they held 95.7% of the 14,938 jobs), Washington County (where they held 98.4% of the 2,870 jobs), and Ozaukee County (where they held 95.7% of the 2,095 jobs).
- In the suburban areas of Milwaukee County and in the WOW counties, Hispanics showed higher employment than African Americans.

Race/Ethnicity of Construction Industry Worksites by Geographic Area, Census 2000

<u>Location of Worksites</u>	<u>Total Workers</u>	<u>Whites</u>		<u>African Americans</u>		<u>Hispanics</u>	
		<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
City of Milwaukee – North Side	6,019	5,006	83.2%	535	8.9%	299	5.0%
City of Milwaukee – Downtown	1,745	1,400	80.2%	154	8.8%	120	6.9%
City of Milwaukee – Valley	1,160	930	80.2%	90	7.8%	115	9.9%
City of Milwaukee – South Side	2,446	2,010	82.2%	158	6.5%	190	7.8%
City of Milwaukee (TOTAL)	11,370	9,346	82.2%	937	8.2%	724	6.4%
Milwaukee County suburbs – north	2,698	2,459	91.1%	86	3.2%	112	4.2%
Milwaukee County suburbs – south	4,641	4,131	89.0%	166	3.6%	232	5.0%
Milwaukee County suburbs (Total)	7,339	6,590	90.0%	252	3.4%	344	4.7%
Milwaukee County (TOTAL)	18,509	15,746	85.1%	1,185	6.4%	1,064	5.7%
Ozaukee County	2,095	2,005	95.7%	4	0.2%	64	3.1%
Washington County	2,870	2,870	98.4%	10	0.3%	24	0.8%
Waukesha County	14,938	14,938	95.7%	183	1.2%	328	2.2%
Total Milwaukee Metro Area	38,512	34,950	90.8%	1,386	3.6%	1,490	3.9%

VI. Worksite Diversity at the 10 Largest Construction Industry Worksites

Construction industry worksites in the suburban counties appear to have some of the lowest percent employment of African-Americans. The place-of-work drilldowns based on a closer examination of worksite employment diversity show a wide range of employment patterns by geographic area. Analyses of tract level place-of-work tables reveal the extent to which construction industry workplaces reflect the diversity of the labor market. In the four-county Milwaukee MSA (Metropolitan Statistical Area), an estimated 38,512 persons were at work for construction companies at the time of the 2000 Census. These employees were on jobs at 362 worksites areas (i.e., census tracts). The ten largest construction industry worksites were analyzed for their employment of minorities.

- The largest worksites were in the City of Milwaukee and in Waukesha County.

- In the largest construction industry worksites in the City of Milwaukee African Americans made up 4 to 11 percent of the total employees and Hispanics made up 7 to 10 percent of total employees.
- In the largest construction worksites outside the City (in Pewaukee, New Berlin, Waukesha and Brookfield), African Americans comprised only 1 to 3 percent of the employed workers and Hispanics comprised 0 to 5 percent of employed workers.

Race/Ethnicity of Workers in the Construction Industry at the 10 Largest Milwaukee Area Worksites, Census 2000

<u>Construction Industry Worksites</u>	<u>Total Workers</u>	<u>% White</u>	<u>% African American</u>	<u>% Hispanic</u>
Milwaukee Sites:				
Menomonee Valley, Milwaukee	1,160	80%	8%	10%
Far northwest side, Milwaukee	705	79%	7%	7%
City hall area, Milwaukee	655	80%	11%	7%
Third Ward area, Milwaukee	560	83%	4%	7%
Suburban Sites:				
Pewaukee, southern part	1,050	95%	1%	1%
New Berlin, northern part	980	98%	1%	0%
Southeast of I-94, Waukesha	735	97%	1%	2%
Menomonee Falls, southern part	730	94%	1%	5%
Southwest of I-94, Waukesha	720	91%	2%	3%
North of I-94, western Brookfield	595	93%	3%	2%

VII. Workers Employed at Construction Industry Worksites Within the City of Milwaukee, Milwaukee County, Washington County, and Waukesha County

The CTPP2000 data files allow analysis of all jobs in construction companies by place-of-work at the time of the 2000 Census. The analysis below shows the racial/ethnic breakdown of employment for construction firm worksites located within (1) the City of Milwaukee, (2) Milwaukee County, (3) Washington County, and (4) Waukesha County. (Because of its smaller size (i.e., below 50,000 population), the CTPP 2000 occupation by industry by race/ethnicity tables were not available for Ozaukee County.)

African Americans and Hispanics appear to be gaining little advantage from growth in construction work outside of Milwaukee County. Very few African Americans, in particular, are employed at worksites in Waukesha County and almost none are employed at construction industry worksites in Washington County.

- Very few African Americans were employed by construction firms in Waukesha County for any type of work. The Census 2000 place-of-work files reported **no** African Americans employed as construction managers or first-line supervisors at Waukesha County worksites. None of the support jobs for 513 secretaries and administrative assistants, 285 sales representatives, 245 bookkeeping/accounting/auditing clerks, or 138 general office clerks were filled by African Americans.
- Hispanics showed at some positions as construction managers (65) and first-line supervisors (25) at Waukesha County construction industry worksites.
- In Washington County, the Census reported only 10 African Americans and 24 Hispanics employed on jobsites, compared to 2,830 whites. In spite of its relatively close proximity to Milwaukee's African American neighborhoods, African Americans were not employed either as construction workers or as support staff.

Note: While the decennial long-form, distributed to one in six U.S. households, represents the largest survey of U.S. workers, it may miss employment of minorities and women in some construction occupations – particularly where women and/or minorities comprise a very small proportion of the labor force.

Workers Employed at Construction Industry Worksites in the City of Milwaukee: 2000 Census

<u>City of Milwaukee Construction Industry Sites</u>	<u>Total</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>
Total Employed at Construction Industry Worksites	11,419	9,388	959	741	331
<u>Occupations with 50 or More Employed</u>					
Carpenters	1,589	1,295	105	145	44
Construction Laborers	1,120	715	215	160	30
Construction Managers	784	655	65	39	25
Painters, Construction and Maintenance	754	605	85	44	20
Electricians	736	654	45	14	23
First-Line Supervisors/Managers of Construction Trades	705	610	40	35	20
Plumbers, Pipelayers, Pipefitters, and Steamfitters	423	400	8	0	15
Roofers	389	255	34	75	25
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	363	355	8	0	0
Carpet, Floor, and Tile Installers and Finishers	294	260	0	34	0
Sheet Metal Workers	294	294	0	0	0
	244	220	20	0	4
Secretaries and Administrative Assistants	222	159	20	29	14
Miscellaneous Construction Equipment Operators	188	154	10	14	10
Drywall Installers, Ceiling Tile Installers, and Tapers	184	115	25	25	19
Chief Executives	179	175	0	0	4
Iron and Steel Workers	178	164	4	10	0
Driver/Sales Workers and Truck Drivers	152	125	0	19	8
Sales Representatives, Services, All Other	145	145	0	0	0
Welding, Soldering, and Brazing Workers	109	105	4	0	0
Bookkeeping, Accounting, and Auditing Clerks	100	85	15	0	0
Office Clerks, General	100	70	30	0	0
Accountants and Auditors	89	70	0	4	15
Cement Masons, Concrete Finishers, and Terrazzo Workers	84	65	15	4	0
Civil Engineers	74	55	0	0	19
General and Operations Managers	70	70	0	0	0
Highway Maintenance Workers	68	60	4	4	0
Heavy Vehicle & Mobile Equip. Service Technicians & Mechanics	65	65	0	0	0
Cost Estimators	64	60	4	0	0
Insulation Workers	64	54	0	10	0
Industrial Truck and Tractor Operators	63	8	45	10	0
Customer Service Representatives	60	45	15	0	0
Managers, All Other	54	54	0	0	0

Source: U.S. Census 2000 Census Transportation Planning Package (CTPP2000) data files.

Workers Employed at Construction Industry Worksites in Milwaukee County: 2000 Census

<u>Milwaukee County Construction Industry Worksites</u>	<u>Total</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>
Total Employed at Construction Industry Worksites	18,638	15,858	1,211	1,096	473
<u>Occupations with 50 or More Employed</u>					
Carpenters	2,410	2,035	125	200	50
Construction Laborers	1,700	1,230	220	200	50
First-Line Supervisors/Managers of Construction Trades Workers	1,225	1,080	40	60	45
Electricians	1,211	1,109	55	14	33
Painters, Construction and Maintenance	1,185	955	135	75	20
Construction Managers	1,168	1,030	70	39	29
Pipelayers, Plumbers, Pipefitters, and Steamfitters	833	800	8	10	15
Heating, Air Conditioning, & Refrig. Mechanics and Installers	603	575	14	4	10
Roofers	589	420	45	85	39
Sheet Metal Workers	427	419	4	0	4
Carpet, Floor, and Tile Installers and Finishers	419	379	0	40	0
Miscellaneous Construction Equipment Operators	413	330	40	29	14
Secretaries and Administrative Assistants	376	309	20	29	18
Brickmasons, Blockmasons, and Stonemasons	369	320	25	20	4
Chief Executives	324	320	0	0	4
Driver/Sales Workers and Truck Drivers	302	275	0	19	8
Drywall Installers, Ceiling Tile Installers, and Tapers	295	185	25	55	30
Iron and Steel Workers	274	250	4	20	0
Sales Representatives, Services, All Other	253	235	10	4	4
Bookkeeping, Accounting, and Auditing Clerks	170	150	20	0	0
Welding, Soldering, and Brazing Workers	160	145	15	0	0
Cement Masons, Concrete Finishers, and Terrazzo Workers	158	95	35	20	8
Accountants and Auditors	154	135	0	4	15
Office Clerks, General	139	109	30	0	0
Highway Maintenance Workers	132	120	8	4	0
Civil Engineers	129	110	0	0	19
Production, Planning, and Expediting Clerks	125	115	10	0	0
General and Operations Managers	115	115	0	0	0
Elevator Installers and Repairers	110	110	0	0	0
First-Line Supervisors/Managers of Office & Admin. Support Work.	105	105	0	0	0
Helpers, Construction Trades	98	60	15	19	4
Heavy Vehicle & Mobile Equip. Service Technicians & Mechanics	90	90	0	0	0
Managers, All Other	89	89	0	0	0
Cost Estimators	89	85	4	0	0
Receptionists and Information Clerks	80	50	30	0	0
Insulation Workers	79	69	0	10	0
Human Resources, Training, and Labor Relations Specialists	75	75	0	0	0
Customer Service Representatives	65	50	15	0	0
Other Production Workers	65	50	0	15	0
Crane and Tower Operators	63	59	0	4	0

<u>Milwaukee County Construction Industry Worksites</u>	<u>Total</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>
Industrial Truck and Tractor Operators	63	8	45	10	0
Plasterers and Stucco Masons	59	40	4	15	0
Designers	54	44	10	0	0
Other Installation, Maintenance, and Repair Workers	52	34	4	4	10
Marketing and Sales Managers	50	50	0	0	0
Millwrights	50	50	0	0	0

Source: U.S. Census 2000 Transportation Package (CTPP2000) data files.

Workers Employed at Construction Industry Worksites in Washington County: 2000 Census

<u>Washington County Construction Industry Worksites</u>	<u>Total</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>
Total Employed at Construction Industry Worksites	2,876	2,830	10	24	12
<u>Occupations with 50 or More Employed</u>					
Carpenters	337	305	10	14	8
Construction Managers	215	215	0	0	0
First-Line Supervisors/Managers of Construction Trades	215	215	0	0	0
Construction Laborers	195	195	0	0	0
Electricians	189	189	0	0	0
Painters, Construction and Maintenance	179	179	0	0	0
Brickmasons, Blockmasons, and Stonemasons	160	160	0	0	0
Plumbers, Pipelayers, Pipefitters, and Steamfitters	125	115	0	10	0
Secretaries and Administrative Assistants	90	90	0	0	0
Miscellaneous Construction Equipment Operators	85	85	0	0	0
Bookkeeping, Accounting, and Auditing Clerks	70	70	0	0	0
Heating, Air Conditioning, & Refrig. Mechanics and Installers	65	65	0	0	0
Roofers	60	60	0	0	0
Welding, Soldering, and Brazing Workers	55	55	0	0	0
Chief Executives	50	50	0	0	0
Carpet, Floor, and Tile Installers and Finishers	50	50	0	0	0

Source: U.S. Census 2000 Transportation Package (CTPP2000) data files.

Workers Employed at Construction Industry Worksites in Waukesha County: 2000 Census

<u>Waukesha County Construction Worksites</u>	<u>Total</u>	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Other</u>
Total Employed at Work	14,876	14,233	185	330	128
<u>Occupations with 50 or More Employed</u>					
Carpenters	2,247	2,170	15	44	18
First-Line Supervisors/Managers of Construction Trades	1,150	1,115	0	25	10
Construction Laborers	1,000	895	30	65	10
Construction Managers	944	940	0	4	0
Electricians	880	840	20	10	10
Plumbers, Pipelayers, Pipefitters, and Steamfitters	639	625	10	0	4
Brickmasons, Blockmasons, and Stonemasons	513	485	4	24	0
Secretaries and Administrative Assistants	498	490	0	8	0
Painters, Construction and Maintenance	462	420	30	4	8
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	387	369	10	4	4
Drywall Installers, Ceiling Tile Installers, and Tapers	380	315	0	45	20
Miscellaneous Construction Equipment Operators	373	365	0	4	4
Carpet, Floor, and Tile Installers and Finishers	314	314	0	0	0
Chief Executives	285	285	0	0	0
Sales Representatives, Services, All Other	285	275	10	0	0
Roofers	245	235	0	10	0
Bookkeeping, Accounting, and Auditing Clerks	235	225	10	0	0
Sheet Metal Workers	208	204	4	0	0
Cement Masons, Concrete Finishers, and Terrazzo Workers	195	185	0	10	0
Cost Estimators	155	155	0	0	0
Civil Engineers	140	140	0	0	0
Driver/Sales Workers and Truck Drivers	138	124	0	14	0
Office Clerks, General	135	135	0	0	0
Managers, All Other	130	120	0	0	10
Accountants and Auditors	120	120	0	0	0
First-Line Supervisors/Managers of Office + Admin. Support Work.	120	120	0	0	0
Welding, Soldering, and Brazing Workers	119	109	0	10	0
Highway Maintenance Workers	104	84	10	0	10
Iron and Steel Workers	99	99	0	0	0
Heavy Vehicle & Mobile Equip. Service Technicians and Mechanics	99	95	0	0	4
Receptionists and Information Clerks	84	74	0	10	0
Insulation Workers	75	75	0	0	0
Architects	70	70	0	0	0
Designers	70	60	0	10	0
Production, Planning, and Expediting Clerks	70	70	0	0	0
Other Production Workers	65	65	0	0	0
Financial Managers	60	60	0	0	0
Janitors and Building Cleaners	60	60	0	0	0
General and Operations Managers	50	50	0	0	0
Marketing and Sales Managers	50	50	0	0	0
Bus and Truck Mechanics and Diesel Engine Specialists	50	50	0	0	0

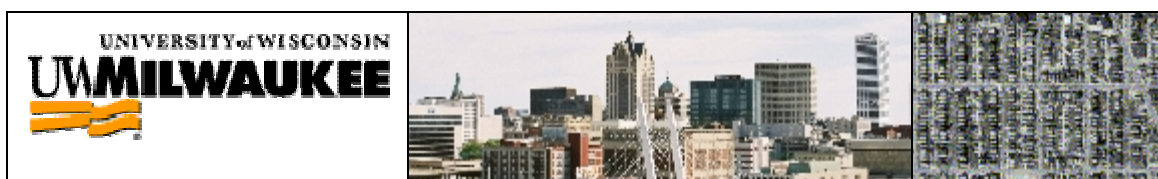
Source: U.S. Census 2000 Transportation Package (CTPP2000) data files.

VIII. Using the ETI Website to Assess Construction Employment by Census Tract

The above analyses and maps are based on census tract and block group CTPP data files obtained on CDs from the U.S. Department of Transportation Census Transportation Planning Package 2000 website at www.fhwa.dot.gov/ctpp. The Employment and Training Institute's Drill Down Tool Kit (posted on the University of Wisconsin-Milwaukee website at www.eti.uwm.edu) provides customized tables online to help analyze the diversity of individual construction industry worksites.

As a first step, users can identify the racial/ethnic composition of construction industry workers employed in each census tract, as of the 2000 Census. For example, the following sample drill downs show the employment patterns in the Menomonee Valley (Milwaukee County Census Tract 132).

ETI Employer Diversity Drilldowns available from www.eti.uwm.edu



Employer Diversity Drill Downs: Menomonee Valley (City of Milwaukee)

The University of Wisconsin-Milwaukee Employment and Training Institute offers Employer Diversity Drill Downs to help identify neighborhoods that offer employment for workers of various racial/ethnic backgrounds and to assess the race/Hispanic origin of the workforce employed in each U.S. neighborhood, according to the 2000 U.S. Census.

Each table profiles the status of workers employed in the neighborhood, whether or not they are residents.

Table 1:

Worker Industry by Ethnic Origin for Place-of-Work in the Menomonee Valley						
State: Wisconsin County: Milwaukee County Tract: 132						
Total Workers	White	Black	Hispanic	Asian	Other	Industry
11,275	7,425	1,875	1,555	155	260	Total, Industry
25	25	0	0	0	0	Agriculture, forestry, mining
1,160	930	90	115	4	25	Construction
3,195	1,885	465	755	55	35	Manufacturing
715	425	130	150	4	4	Wholesale trade
355	285	35	15	4	15	Retail trade
2,775	1,950	630	130	30	35	Transportation, warehousing, utilities
160	95	15	30	15	0	Information
275	225	35	4	0	4	Finance, insurance, real estate
755	545	90	90	0	35	Professional, management, admin. services
420	185	150	55	20	10	Educational, health and social services
920	485	140	180	20	95	Entertainment, accommodations, food services
275	190	45	35	0	0	Other services (except public)
250	195	50	4	0	0	Public administration
0	0	0	0	0	0	Armed forces

Source: Census Transportation Planning Package (CTPP2000) data on place-of-work of the U.S. population based on 2000 Census long-form questionnaire responses. These Employer Diversity Place-of-Work Drill Downs were prepared by the University of Wisconsin-Milwaukee Employment and Training Institute, 2005.

Table 6:

Means of Transportation to Work by Industry <u>Place-of-Work</u> in the Menomonee Valley					
State: Wisconsin County: Milwaukee County Tract: 132					
Total Workers	Drove Alone	Vanpool/ Carpool	Mass Transit	Else	Industry
11,275	8,385	1,605	959	320	Total, Industry
25	15	10	0	0	Agriculture, forestry, mining
1,160	895	165	65	35	Construction
3,195	2,305	520	285	80	Manufacturing
715	545	120	35	15	Wholesale trade
355	260	69	10	10	Retail trade
2,775	2,240	265	190	80	Transportation, warehousing, utilities
160	125	24	4	0	Information
275	190	33	30	24	Finance, insurance, real estate
755	565	115	55	25	Professional, management, administrative services
420	275	55	70	24	Educational, health and social services
920	560	210	120	30	Entertainment, accommodations, food services
275	175	14	85	0	Other services (except public)
250	230	8	4	0	Public administration
0	0	0	0	0	Armed Forces

Table 3:

Occupations by Race/Ethnicity for <u>Place-of-Work</u> in the Menomonee Valley						
State: Wisconsin County: Milwaukee County Tract: 132						
Total Workers	White	Black	Hispanic	Asian	Other	Occupational Grouping
11,270	7,425	1,875	1,555	155	260	Total Occupation
784	670	55	40	4	15	Management
25	25	0	0	0	0	Farmers, farm managers
330	280	35	15	0	0	Business, financial operations
239	195	15	25	0	4	Computer, mathematical
179	175	0	4	0	0	Architecture, engineering
120	100	0	0	20	0	Life, physical, social science
40	30	10	0	0	0	Community, social service
29	10	15	0	0	4	Legal
95	55	40	0	0	0	Education, training, library
119	95	0	20	4	0	Arts, design, entertainment, sports, media
109	55	25	0	25	4	Healthcare practitioners, technicians
120	45	50	15	0	10	Healthcare support
229	140	55	30	0	4	Protective service
300	145	55	70	10	20	Food preparation, serving related
334	200	50	80	4	0	Building, grounds cleaning, maintenance
285	160	40	45	10	30	Personal care, service
715	470	160	45	15	25	Sales, related
2,360	1,710	470	120	30	30	Office, administrative support
24	4	0	20	0	0	Farming, fishing, forestry
929	715	75	110	4	25	Construction, excavation
585	495	10	55	0	25	Installation, maintenance, repairs
1,855	965	310	540	25	15	Production
1,454	680	400	325	4	45	Transportation, material moving
0	0	0	0	0	0	Armed forces

Source: Census Transportation Planning Package (CTPP2000) data on place-of-work based on responses to the 2000 Census long-form questionnaire. The primary job is reported for each worker and cell values are rounded. These Employer Diversity Drill Downs were prepared by the University of Wisconsin-Milwaukee Employment and Training Institute, 2005. See www.eti.uwm.edu.

IX. Methodology

The primary data sources used for this report are the Census Special Equal Employment Opportunity (EEO) Tabulation and the Census Transportation Planning Package. These databases are described below, and additional documentation is available on the census website.

Census Special Equal Employment Opportunity (EEO) Tabulations

The Census Special Equal Employment Opportunity Tabulations provide data on the number of people employed in nearly 500 occupations by gender, race, ethnicity, education, age, industry and earnings. Summary tables are available for metropolitan areas, counties, and places with populations of 50,000 or more.

Four federal agencies that have responsibility for enforcing antidiscrimination laws and regulations sponsored the tabulations. These include the Equal Employment Opportunity Commission (EEOC), the Department of Justice, the Department of Labor's Office of Federal Contract Compliance Program (OFCCP), and the Office of Personnel Management.

Census 2000 Place-of-Work Tables

The Census Transportation Planning Package (CTPP) is a special tabulation available for the 1990 and 2000 censuses, offering special tabulations of census data tailored to meet the data needs of transportation planners nationwide. The 2000 CTPP was sponsored by the state and federal departments of transportation.

The University of Wisconsin-Milwaukee Employment and Training Institute has focused on the CTPP 2000 place-of-work data from the perspective of central city neighborhoods seeking greater business and employment opportunities for their residents. Using data files released in 2004 and 2005, ETI developed three sets of drill down reports: Business Place-of-Work Drill Downs, Employer Diversity Drill Downs, and Neighborhood Workforce Drill Downs. These drill down reports are now available free from the Employment and Training Institute website (at www.eti.uwm.edu) for all census tracts in the U.S.

Most of the definitions and description of methodology reported here are excerpted from the "Census Transportation Planning Package 2000 Definition of Subject Characteristics," posted at www.mtc.ca.gov/maps_and_data/datamart/census/ctpp2000/CTPP_TechDoc.pdf. See also, www.fhwa.dot.gov/ctpp/about.htm and www.census.gov.

Census Data Tabulations

The CTPP2000 includes a series of tabulations for various levels of geography, including state, county, place, census tract and block group, and traffic analysis zone (TAZ). The tables in the CTPP relate social and demographic characteristics of persons, households, and workers to their journey-to-work characteristics, such as travel time and travel mode to work.

Three types of data tabulations are provided in the CTPP:

- **Place of residence** tables show the number and characteristics of housing units, persons, and workers who live in each geographic area.
- **Place-of-work** tables show the number and characteristics of persons who work in each geographic area (regardless of where they live).
- **Commuter flow** tables show the number and characteristics of persons in each worktrip origin-destination pair of geographic areas.

The three types of data tabulations are produced for a full range of areas in the geographic hierarchy. Summary levels include state, county, minor civil division, and place. At the detailed geographic level, data are available at the census tract level and for participating states, at the block group and/or traffic analysis zone level.

The data on workers in CTPP 2000 are drawn from answers to questions 21, 22, 27, 28 and 29 of the Census 2000 long-form questionnaire, mailed to one in six U.S. households. (The long form questionnaire is available at: www.census.gov/dmd/www/pdf/d02p.pdf.) Data were tabulated for workers 16 years old and over who were at work during the week prior to when the questionnaire was filled out. This large sample is used to estimate totals for the entire population.

Rounding Used in the CTPP 2000 Data

The estimates of workers in the CTPP 2000 tabulations have been rounded for each reported cell. Values from 1 thru 7 were rounded to 4. Values of 8 or greater were rounded to the nearest multiple of 5, unless the estimate already ended in 5 or 0, in which case it was not changed. As a result, estimates derived from these files may not be identical to comparable figures contained in other census products. The greater the number of records from these files that are summed for comparison purposes, the more rounding errors there may be and the greater the difference between the estimates from different sources may be.

Definition of Workers

In the special tabulations, **workers** are defined as people 16 years and older who were employed and at work during the Census reference week. This is the week prior to when the questionnaire was filled out, for most people the week ending with April 1, 2000. Workers include both civilians and people in the Armed Forces, and part-time workers as well as full-time. People who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons are not included in the place-of-work data.

If a worker held two jobs, only data about the primary job (the one where the person worked the most hours during the preceding week) was requested. People who regularly worked in several locations during the reference week were requested to give the address at which they began work each day. For cases in which daily work was not begun at a central place each day, the person was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

CTPP Workers-at-Work Compared to Other Employment Estimates

Counts of workers-at-work obtained from CTPP 2000 will differ from other employment data sources. **While examining CTPP worker counts against other data sources, note that total jobs and total employment in each geographical area will be HIGHER than CTPP worker counts.** The number of workers shown in CTPP Part 2 will be approximately 91 to 93 percent of the number of jobs counted by establishment inventories. (See the CTPP Status Report, July 2003 at www.fhwa/dot/gov/ctpp/sr0503.htm.) There are several reasons for differences between worker counts and total jobs:

1. Census 2000 counts employed persons, not jobs. For persons with more than one job, characteristics on only the principal job are collected. Nationally, about 6 percent of workers have second jobs.
2. CTPP 2000 reports only those workers who were **at work** during the reference week. About 2 percent of employed workers are absent who are from work in any given week. The Census Bureau also notes that people who had irregular, casual, or unstructured jobs during the reference week may have erroneously reported themselves as not working.

3. CTPP includes full-time and part-time workers, of all classes (wage and salary, self-employed, private or public). By contrast, most other employment data sources count jobs. Some sources omit persons who are self-employed, some count only wage and salary jobs, and some exclude most public sector jobs.
4. Because the decennial census questions on employment are designed to capture the workplace at which the respondent worked the most hours, workers who worked two or more jobs are captured at only one of their workplaces. The local effect is that CTPP data may show substantially fewer workers in those areas/zones where second jobs and part-time employment are more the norm. Examples of such areas include:
 - Areas where retail trade and similar service industries are predominant.
 - Colleges and university areas. Typically, colleges/universities employ considerable numbers of part-time adjunct teachers, a trend that increased during the 1990s. Therefore, census tracts or traffic analysis zones (TAZs) with colleges and universities may reflect lower worker totals than the institution's own figures.
5. Multi-site businesses and some job types are not reported consistently by employers or employees, and as a result are difficult to geocode and likely to show variability from one source to another. In business and establishment surveys, companies with more than one work location may still report all their workers at a single location, typically a corporate office building. The state unemployment insurance agencies that maintain ES-202 files vary in their efforts to distribute job counts to the company's individual work locations.
6. While most workers have only a single work location, there are industries where the majority of jobs do not follow this pattern. Some people will give the address of their current assignment, some will give the headquarters' address appearing on their mail or paycheck, and some may give no answer.

“Place of Work” Definitions

The address where the individual worked most often during the reference week was recorded on the Census 2000 questionnaire (question 22). The exact address (number and street name) of the place of work was asked, as well as the place (city, town, or post office); whether or not the place of work was inside or outside the limits of that city or town; and the county, state or foreign country, and ZIP Code. If the person's employer operated in more than one location, the exact address of the location or branch where the respondent worked was requested. When the number and street name were unknown, a description of the location, such as the building name or nearest street or intersection, was to be entered. Intersection locations were assigned to specific census tracts and block groups, and in some cases jobs identified by intersection may be allocated to a neighboring block group.

In areas where the workplace address was coded to the block level, people were tabulated as working inside or outside a specific place based on the location of that address, regardless of the response to question 22c concerning city/town limits. In areas where it was impossible to code the workplace address to the block level, people were tabulated as working in a place if a place name was reported in question 22b and the response to question 22c was either "yes" or the item was left blank. In selected areas, census designated places (CDPs) may appear in the tabulations as places of work. The accuracy of place-of-work data for CDPs may be affected by the extent to which their census names were familiar to respondents, and by coding problems caused by similarities between the CDP name and names of other geographic jurisdictions in the same vicinity.

Place-of-work data are given for minor civil divisions (MCDs) (generally, cities, towns, and townships) in 12 selected states (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey,

New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin), based on the responses to the place of work question. Many towns and townships are regarded locally as equivalent to a place, and therefore, were reported as the place of work. When a respondent reported a locality or incorporated place that formed a part of a township or town, the coding and tabulating procedure was designed to include the response in the total for the township or town.

Comparability of Place-of-Work Data: 1980 - 2000

The wording of the question on place of work was substantially the same in Census 2000, the 1990 census, and the 1980 census. However, data on place of work from Census 2000 and the 1990 census are based on the full census sample, while data from the 1980 census were based on only about one-half of the full sample. For the 1980 census, nonresponse or incomplete responses to the place-of-work question were not allocated, resulting in the use of "not reported" categories in the 1980 publications. However, for Census 2000 and the 1990 census, when place of work was not reported or the responses was incomplete, a work location was allocated to the person based on their means of transportation to work, travel time to work, industry, and location of residence and workplace of others. Census 2000 and 1990 census tabulations, therefore, do not contain a "not reported" category for the place-of-work data.

Comparisons between 1980, 1990 or Census 2000 data on the gross number of workers in particular commuting flows, or the total number of people working in an area, should be made with extreme caution. Any apparent increase in the magnitude of the gross numbers may be due solely to the fact that for Census 2000 and the 1990 census, the "not reported" cases have been distributed among specific place-of-work destinations, instead of tallied in a separate category, as, a nonwork destination.

Definitions of Race/Ethnicity

The CTPP2000 used four racial categories for reporting its data tables:

- White alone
- Black or African American alone
- Asian alone
- All other (including persons reported as 2 or more races, Native Hawaiian or Pacific Islander, American Indian or Alaska Native, or other race.

Workers were also identified as

- Hispanic or Latino
- Not Hispanic or Latino

For the ETI Diversity Drill Downs, all workers identified as "Hispanic or Latino" are included in that category. The four categories of race listed above were used for persons who were **not** identified as Hispanic or Latino. The resulting five racial/ethnic categories are used in the drilldowns:

1. Hispanic or Latino (all races)
2. White alone AND non-Hispanic/Latino
3. Black or African American alone AND non-Hispanic/Latino
4. Asian alone AND non-Hispanic/Latino
5. All other races and combinations of races AND non-Hispanic/Latino

Comparability of Race/Ethnic Data

The data on race in Census 2000 are not directly comparable to those collected in previous censuses. First, respondents were allowed to select more than one category for race in 2000. The CTPP tabulations considered persons to be of a race if they indicated that race **alone**. Persons indicating two or more races

were included in an “all other” category for many of the tables provided. The fifth category listed above (“all other races and combinations of races AND non-Hispanic/Latino”) is consequently larger than the “Some other race” category shown in the 2000 Census since it includes people with more than one race.

As in 1980 and 1990, people who reported a Hispanic or Latino ethnicity in the question on race and did not mark a specific race category were classified in the “Some other race” category (“Other” in 1980 and “Other race” in 1990). They commonly provided a write-in entry such as Mexicans, Puerto Rican, or Latino. In the 1970 census, most of these responses were included in the “White” category. In addition, some ethnic entries that in 1990 may have been coded as White or Black are now shown in the “Some other race” group.

For Further Information

For more information on definitions of variables from the 2000 Census and calculations used, see the Census Bureau site at www.census.gov and the U.S. Department of Transportation Census Transportation Planning Package 2000 website at www.fhwa.dot.gov/ctpp. Drill downs for any community or target market in the U.S. can be accessed through the Employment and Training Institute website at www.eti.uwm.edu.

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