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Toward Full Utilization of the Milwaukee Area Labor Force: A Planning Guide for Employers

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Employment & Training Institute

Toward Full Utilization of the Milwaukee Area Labor Force:

A Planning Guide for Employers

UNIVERSITY OF WISCONSIN • MILWAUKEE
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Executive Summary

A critical challenge facing public policy makers and human resource planners is how to utilize the full potential of the Milwaukee area workforce. This report provides a comprehensive description of the metropolitan labor force to assist employers in planning for their companies and establishes benchmarks to assess employment and hiring patterns in the Milwaukee metropolitan area. Detailed tables are provided on the labor pool of workers by occupational titles, the employment of workers by industry, and the current utilization of women and minorities in the Milwaukee labor force.

The most comprehensive data available for analysis of the Milwaukee area labor force population by age, race, sex, and level of education are the series of computerized data files available through the 1990 U.S. Census. Data sets used in this report include the Public Use Microdata Sample (PUMS) files of the 1990 Census, the 1990 Census/EEO Special Tabulations file, and 1991 EEO-1 reports of metropolitan Milwaukee area employers. This report, summarizing these data files, is made available to local governments and Milwaukee area employers for planning purposes. Highlights of the data analysis are presented below.

- The Milwaukee area labor force expanded from 697,465 workers in 1980 to 740,963 workers in 1990. **Highest growth was seen in professional occupations (an increase of 21,403 workers), administrative and managerial positions (a 19,780 increase), and sales occupations (an 18,065 increase).** Blue collar occupations as operators, fabricators and laborers showed the largest declines -- with 29,459 fewer workers in these fields by 1990. Contrary to popular perception, the Milwaukee area did not see a large increase in non-professional service workers during the decade. Occupations as service workers increased only 2.3 percent.
- **While technological innovations have created new jobs requiring advanced educational training, a significant number of college graduates in the Milwaukee area appear underutilized, in occupations not commensurate with their education.** One out of every six female college graduates in the Milwaukee metropolitan labor force (17.8 percent) and one out of every eight male college graduates (13.3 percent) were in occupations not requiring a college degree.
- Analysis of EEO-1 data reported to the federal government for larger companies and companies with federal contracts was used to assess current efforts of these employers to incorporate women and minorities into their workforce in proportion to the overall availability in the metropolitan labor force. **Private companies with over 100 employees made up 3 percent of all companies in the Milwaukee area, but accounted for 50 percent of all private employment and an estimated 71 percent of minorities employed in the private sector.** The EEO-1 reporting companies showed that 15 percent of their workforce was made up of minorities, while it is estimated that the balance of employers with less than 100 employees had an overall minority employment rate of 6 percent.
- **Many Milwaukee companies have a demonstrated track record in minority hiring. One-third of private companies filing EEO-1 reports were hiring minorities at or above the overall availability rate of 14.34 percent. At the same time, for one-third of reporting companies minorities made up fewer than 5 percent of their workforce.**
- Companies located in Milwaukee County were more likely to hire at availability levels for minorities than companies located in the outlying areas of the metropolitan area. **Forty-three percent of companies in Milwaukee County reported minority employment at or above availability level, compared to 11 percent of companies located in Waukesha, Ozaukee and Washington Counties.**

- **Companies reporting EEO-1 data in the metropolitan area showed 43 percent employing women at or above the standard for officials and managers while 17 percent of companies employed women at less than 1 percent as officials and managers.** Women were most successful in professional services and finance sectors where over 80 percent of companies employed women at or above the standard.
- **Lack of transportation to jobs appears to represent a serious barrier to employment for many city residents, particularly in the central city. Less than half (44 percent) of unemployed workers from Milwaukee's central city (primary CDBG) area had a car in their household.** On the City's northwest and east sides and the southside, one out of five unemployed persons did not have a car in their household. Lack of adequate transportation limits these job seekers' access to employment, particularly for jobs in Waukesha, Ozaukee and Washington counties.
- **Employed persons in Milwaukee's central city showed a strong dependence upon public transportation and carpooling.** Only 70 percent of employed workers in Milwaukee's central city had a car in their household, while over 90 percent of employed workers from all other geographical areas of the SMSA had one or more cars in their household.
- **Young high school graduates in the Milwaukee SMSA were much more likely to be employed if they were white. Among all high school graduates, aged 18-30 and not enrolled in post-secondary education, young white men showed employment rates (full- and part-time) of 91 percent and white women 80 percent employment, compared to rates of only 63 percent for young black male graduates and 47 percent for young black female high school completers.** Among high school dropouts aged 18-30, black men showed employment rates less than half those for white male dropouts -- 34 percent and 78 percent respectively.
- **Workers lacking a high school education were particularly vulnerable in Milwaukee's changing economy. Over half of all workers lacking a high school diploma were concentrated in five of 69 occupational clusters: food preparation and service; machine operators; retail and personal sales; cleaning and building services; and fabricator, assembler and handworking occupations. One out of every eight high school dropouts in the Milwaukee labor force was in food preparation and service occupations, compared to one out of every 28 workers with a high school degree or better.**
- **Employment patterns for minorities were examined by each of twelve industrial sectors and by level of workers' educational attainment to assess minority employment for Milwaukee area industrial sectors. In Milwaukee County, the construction and wholesale trade sectors were below the availability standard of minorities at all educational levels. Public administration and the transportation, communications and utilities sectors in Milwaukee County hired minorities with four year college degrees or more at twice the overall availability for the metropolitan area. In Waukesha County minorities were least likely to be employed in agriculture, construction, and the professional services sector. In Ozaukee/Washington counties, minorities showed low employment in all industrial sectors with 0 percent in public administration, and the finance, insurance and real estate sector.**

The report Toward Full Utilization of the Milwaukee Area Labor Force: A Planning Guide for Employers is available from the Employment and Training Institute for \$10.00. Detailed occupational tables (Appendix B) are available for \$20.00. Contact the Employment and Training Institute, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201-0413. Phone (414) 229-4934.

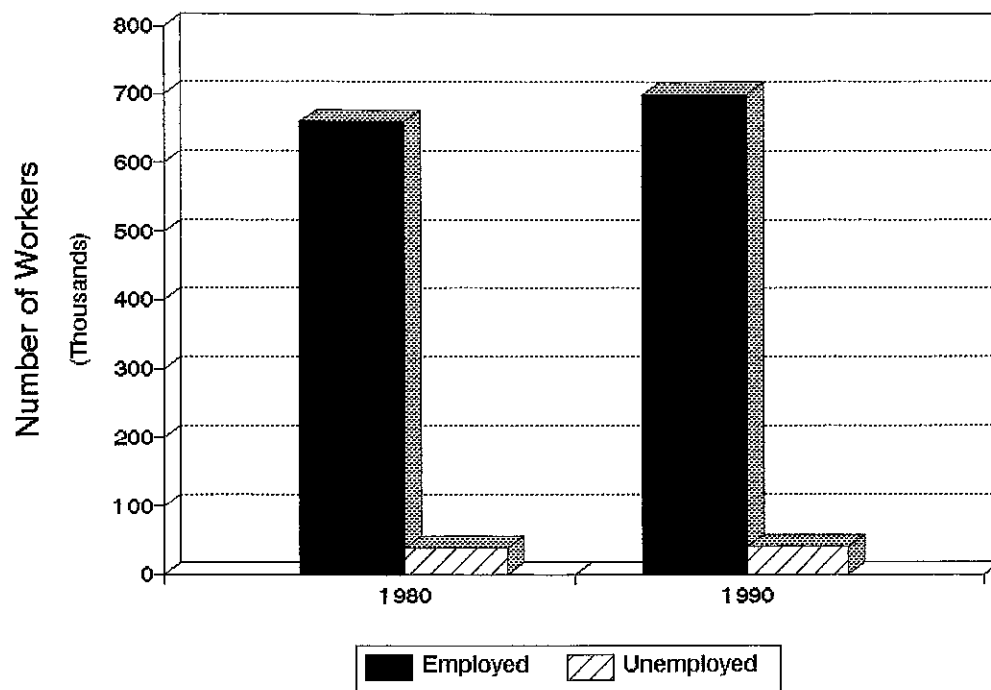
I. Changes in the Milwaukee Area Labor Force: 1980 to 1990

In 1990 there were 740,963 workers in the Milwaukee metropolitan civilian labor force. This total of labor force participants in Milwaukee, Ozaukee, Washington and Waukesha counties showed a 6.2 percent increase from 697,470 workers in 1980.¹ At the end of the decade, 700,737 workers were employed and 40,226 were unemployed.

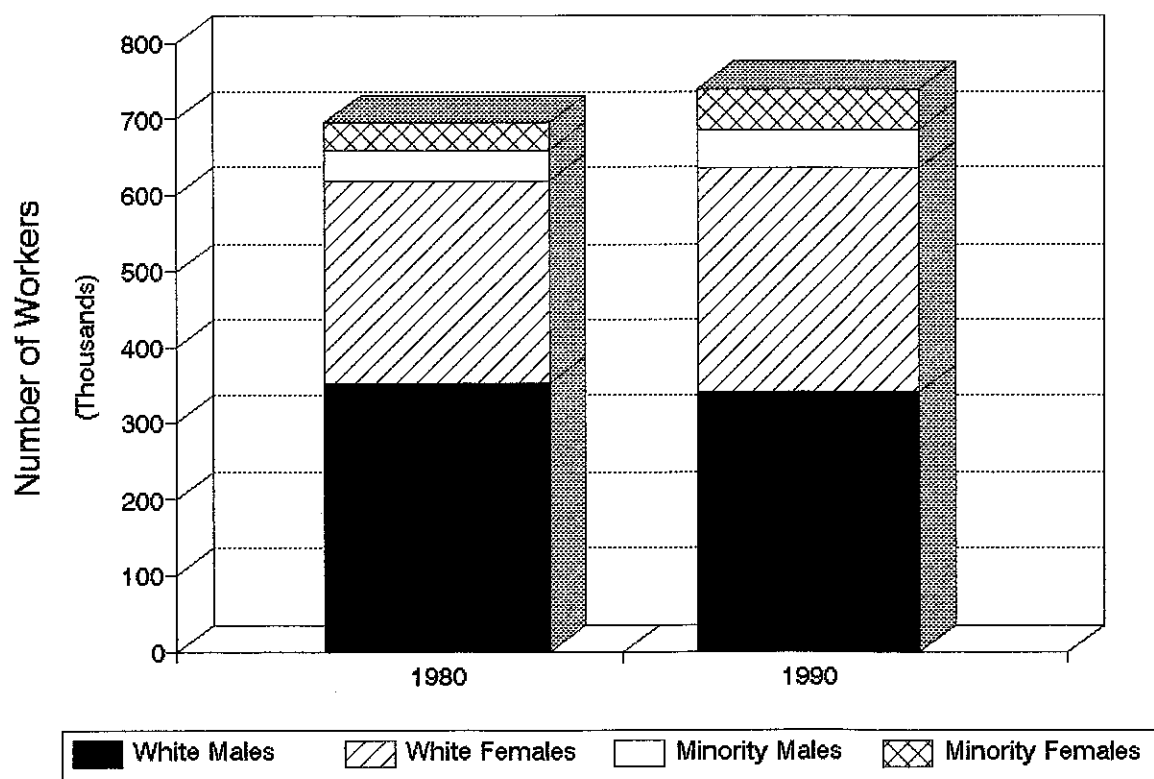
During the decade of the 1980s, large numbers of women entered the Milwaukee area labor force. By 1990 the metropolitan area showed an increase of 27,837 white female workers and an increase of 15,947 of minority female workers. The number of white male workers declined by 11,956, while the number of minority males in the labor force increased by 11,665 from 1980 to 1990. By 1990 the metropolitan area showed higher proportions of women in the labor force (up from 43.6 percent of the work force in 1980 to 47.0 percent in 1990) and of minority workers (up from 11.3 percent of the work force in 1980 to 14.3 percent in 1990).

¹ The data in this section are derived from the 1990 U.S. Census/EEO Special File generated by the U.S. Census Bureau for use by affirmative action planners using data from the 1990 census. This computerized database details the civilian labor force including employed persons, unemployed persons with recent work experience, and unemployed persons with no recent work experience. The 1990 occupational data covers one point in time -- April 1990, and details 512 occupation categories by race/ethnicity and gender and, in separate tables, by educational attainment levels. Occupations identified by workers in the Milwaukee SMSA (Milwaukee, Ozaukee, Washington and Waukesha counties) in 1990 were compared with occupations listed by workers in 1980, after adjusting for changes in occupational titles and definitions. Those unemployed workers with no recent employment do not have an occupation listed and are not included in the occupational analysis.

Growth in Milwaukee Area Labor Force 1980-1990



Milwaukee Area Labor Force Participants 1980-1990



Occupational Shifts in the Available Labor Force

From 1980 to 1990 the largest occupational increases in the Milwaukee metropolitan area labor force were located at the higher rather than the lower end of the employment occupational groupings. Persons reporting occupations as executives, managers and administrators increased by 19,780, and professional occupations showed a 21,403 increase -- with white females posting the largest gains in both categories. Professional occupations with significant growth included: registered nurses, computer and operations systems analysts, elementary school teachers, designers, lawyers, and social workers. Sales occupations -- which include lower- and mid-range paid workers -- also increased by 18,065.

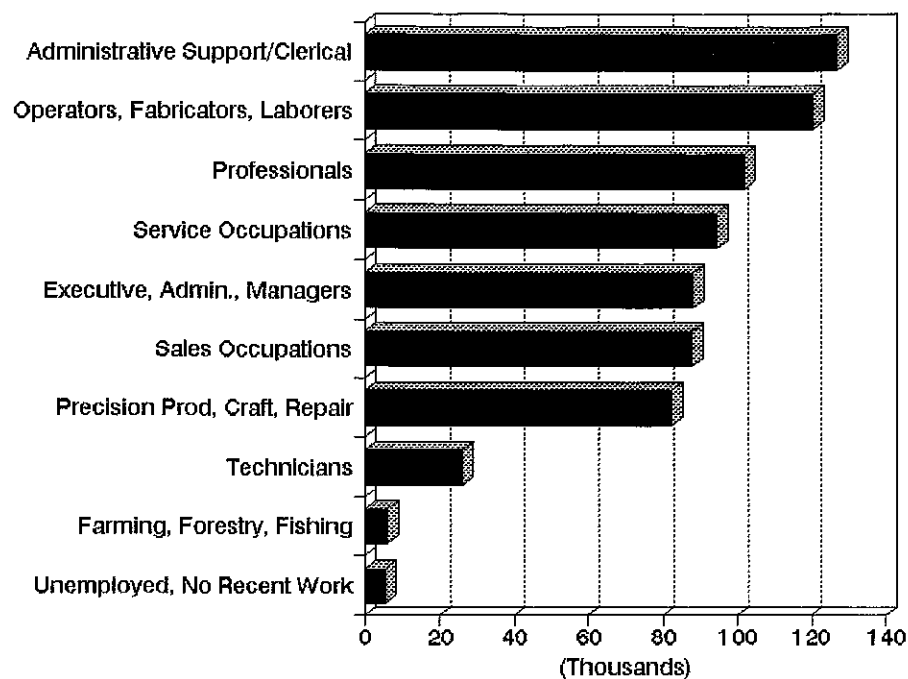
While the four-county area showed a net increase of over 43,000 persons in the civilian labor force in the decade, the number of men and women with occupations in blue collar jobs as operators, fabricators, and laborers declined by 29,459 workers (32.2 percent). Contrary to popular perception, the Milwaukee area did not see a large increase in non-professional service workers during the decade. Occupations as "front-line" service workers increased only 2.3 percent, with decreases observed in the number of cleaning and building service workers, food preparation and service workers, and private household workers. Occupations in protective services and health services showed modest (4-5 percent) increases, while persons reporting occupations in temp jobs or casual labor increased by 2,505, or 25 percent.

Modest growth was observed overall in administrative support occupations (a 3.9 percent increase over the decade). Transformations in the administrative and clerical fields were evident in the growth of occupations utilizing computer technology along with less usage of traditional job titles, e.g. secretary and office clerk. Several traditional clerical occupations showed drops, including secretaries, stenographers, typists, order and file clerks, payroll and timekeeping clerks, and telephone operators. Growth was seen in insurance and other adjusters and investigators, accountants, auditors, computer operators, data-entry keyers and receptionists. Precision, production, craft and repair occupations showed an overall decline (1.7 percent), although increases were noted in several occupational titles, including electrical and electronic equipment assemblers, precision assemblers and machinists.

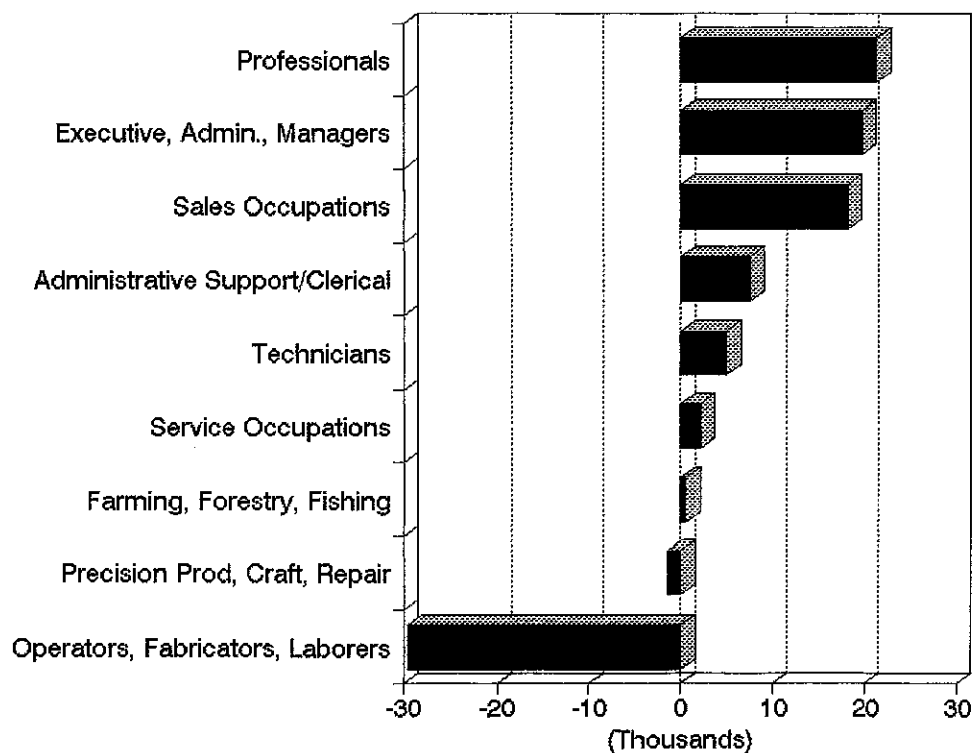
Occupational shifts differed for men and women and by racial and ethnic groups. White men showed declines in blue collar and service occupations and increases in sales, professional and managerial positions. Minority males showed relatively large increases in service occupations, followed by sales and administrative support occupations. A large portion of the growth in managerial and professional positions were captured by white females, while minority females showed increases in the "pink collar" occupations of administrative support and in sales.

The graphs and tables below summarize the occupational categories of the Milwaukee area labor force for 1980 and 1990 and show differences for female and minority sub-populations. Detailed tables listing all occupational titles are included in Appendix B.

Occupations of Milwaukee Area Workers 1990



Changes in Occupations 1980-1990



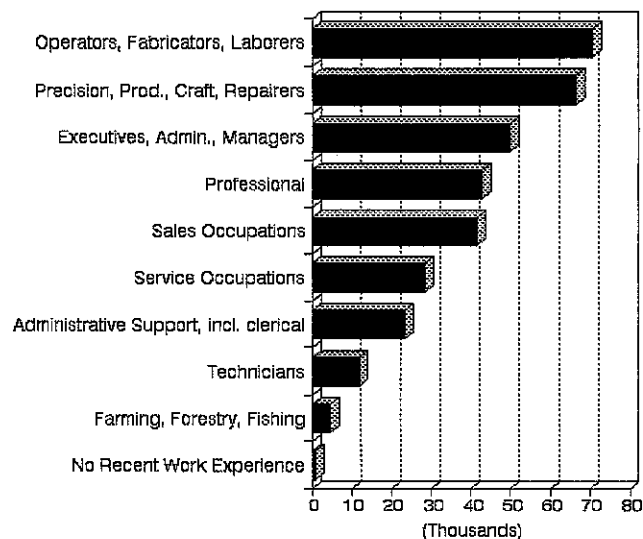
1990 AND 1980 U.S. CENSUS EEO FILES
CIVILIAN LABOR FORCE

OCCUPATION SUMMARY

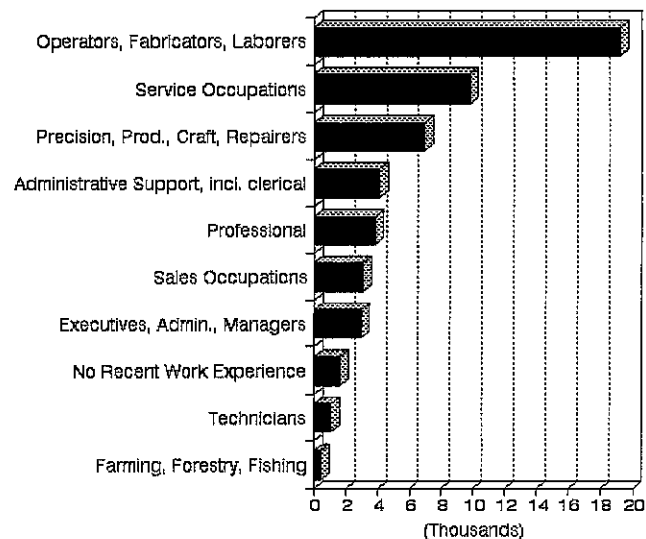
	METRO AREA			FEMALES		MINORITIES	
	1990 TOTAL	1980-1990 CHANGE	1980-1990 % CHANGE	1990 % OF TOTAL	1980 % OF TOTAL	1990 % OF TOTAL	1980 % OF TOTAL
Executives, Administrators, Managers	88171	19780	28.9%	40.1%	27.1%	6.5%	5.1%
Professional							
Engineers, Architects & Surveyors	11072	321	3.0%	7.7%	5.0%	4.1%	4.8%
Math and Computer Sciences	5080	2862	129.0%	34.4%	28.3%	7.1%	7.6%
Health Diagnosing	5701	1128	24.7%	18.7%	9.1%	11.2%	9.7%
Health Assessment and Treating	18888	5898	45.4%	89.2%	87.4%	7.2%	4.6%
Postsecondary Teachers	4596	600	15.0%	44.0%	42.1%	13.6%	9.4%
Elementary, Secondary, and Other Teachers	26854	3523	15.1%	72.0%	69.7%	10.4%	7.8%
Other Professionals	29753	7071	31.2%	45.2%	38.6%	10.5%	9.1%
Technicians							
Health	10194	1887	22.7%	86.9%	87.8%	11.5%	10.7%
Other Technicians	15915	3128	24.5%	26.4%	22.2%	7.6%	7.0%
Sales							
Supervisors and Proprietors	19606	10413	113.3%	35.5%	30.2%	6.7%	4.8%
Sales Representatives	27768	5387	24.1%	30.9%	23.4%	4.8%	3.4%
Sales Workers, Other Sales Related	40545	2265	5.9%	68.7%	72.8%	14.2%	6.1%
Administrative Support, incl. Clerical							
Supervisors, Administrative Support	5217	-2058	-28.3%	60.6%	48.1%	12.2%	6.0%
Secretaries, Stenographers, Typists	29445	-2407	-7.6%	98.6%	98.6%	9.5%	7.6%
Information Clerks	9586	3135	48.6%	89.1%	90.8%	11.3%	12.8%
Records Processing Occupations	20369	-3827	-15.8%	87.3%	84.9%	10.7%	8.5%
Material Recording, Scheduling, and Distributing Clerks	16233	1771	12.2%	39.4%	35.7%	14.7%	10.7%
Adjusters and Investigators	9030	5492	155.2%	75.2%	68.9%	13.2%	12.7%
Mail and Message Distributing Occupations	7110	1411	24.8%	41.0%	33.5%	22.5%	13.7%
Other Administrative Support Occupations	30029	1233	4.3%	83.3%	84.0%	16.6%	11.9%
Service Occupations							
Private Household Workers	1444	-583	-28.8%	91.8%	96.1%	16.0%	20.9%
Protective Service Occupations	10372	445	4.5%	15.5%	12.8%	18.7%	11.3%
Food Preparation and Service Occupations	35691	-300	-0.8%	62.0%	68.0%	20.0%	11.9%
Health Service Occupations	14771	744	5.3%	88.2%	90.9%	36.1%	26.9%
Cleaning and Building Service Occupations	19836	-642	-3.1%	41.4%	39.6%	30.0%	21.4%
Personal Service Occupations	12393	2505	25.3%	82.1%	76.3%	16.5%	17.1%
Farming, Forestry and Fishing	6392	646	11.2%	23.0%	20.7%	9.8%	6.6%
Precision, Production, Craft & Repair							
Mechanics and Repairers	21394	-2599	-10.8%	4.0%	3.8%	8.1%	7.5%
Construction Trades	23502	1009	4.5%	2.4%	1.8%	9.3%	6.0%
Precision Production	35564	-459	-1.3%	21.1%	15.5%	13.0%	9.7%
Plant & System, Extractive Occupations	1984	664	50.3%	4.0%	2.7%	11.9%	8.3%
Operators, Fabricators, and Laborers							
Machine Operators	38735	-15564	-28.7%	30.9%	28.2%	23.3%	20.2%
Fabricators, Assemblers, Hand Working	20827	-6478	-23.7%	37.1%	38.9%	26.1%	20.6%
Inspectors, Testers, Samplers, and Weighers	5862	-2461	-29.6%	44.7%	42.6%	19.5%	16.6%
Motor Vehicle Operators	20981	961	4.8%	10.0%	8.6%	18.2%	10.7%
Material Moving Equipment Operators	5347	-3001	-35.9%	5.6%	5.6%	23.2%	19.3%
Freight, Stock and Material Handlers	9997	525	5.5%	22.1%	13.4%	21.1%	13.4%
Laborers	12240	-192	-1.5%	17.1%	17.7%	27.2%	24.1%
Other Helpers and Related Occupations	6743	-3249	-32.5%	30.2%	37.9%	23.6%	19.1%
Unemployed, No Recent Civilian Work Experience	5726	2514	78.3%	57.0%	58.8%	65.7%	36.8%
TOTAL	740963	43498	6.2%	47.0%	43.6%	14.3%	11.3%

Source: University of Wisconsin-Milwaukee, Employment and Training Institute/Social Science Research Facility

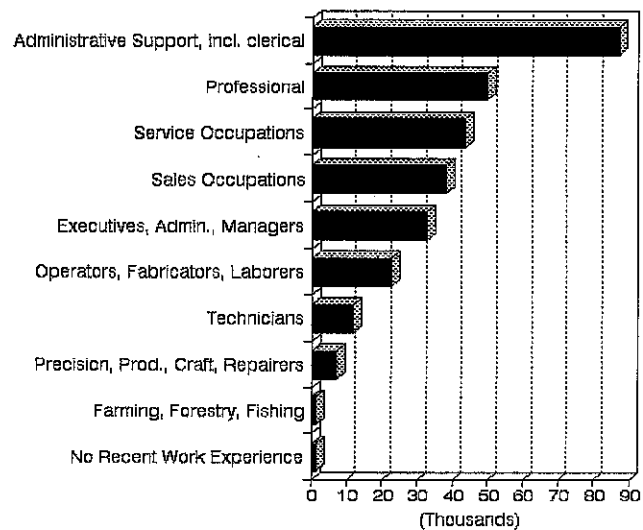
Occupations of White Males: 1990



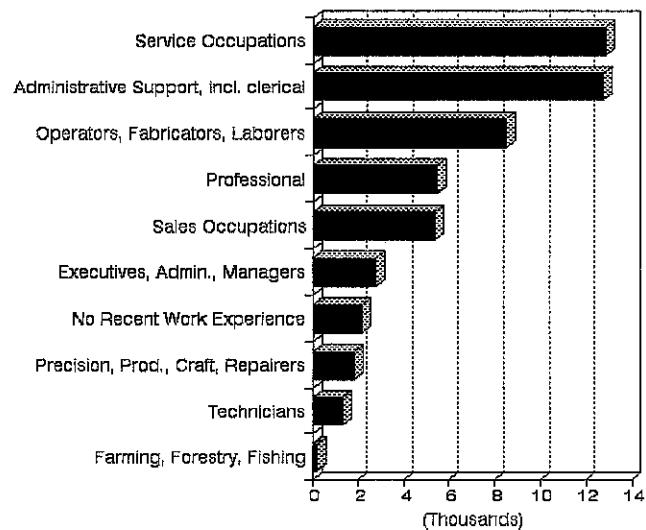
Occupations of Minority Males: 1990



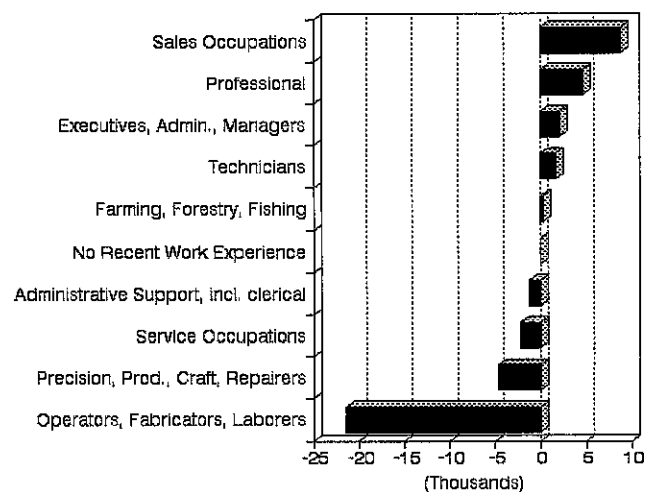
Occupations of White Females: 1990



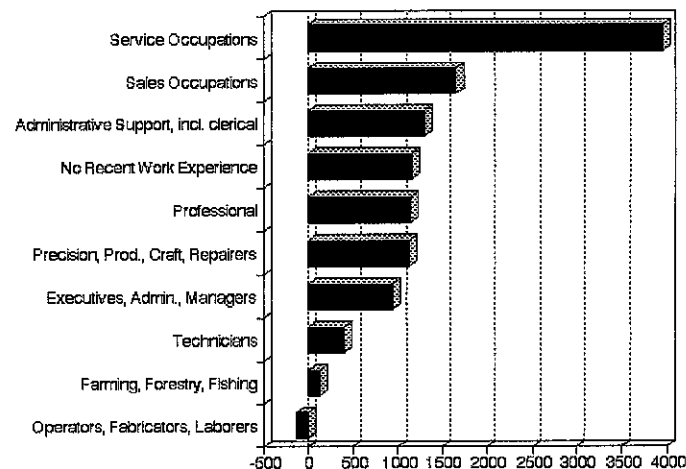
Occupations of Minority Females: 1990



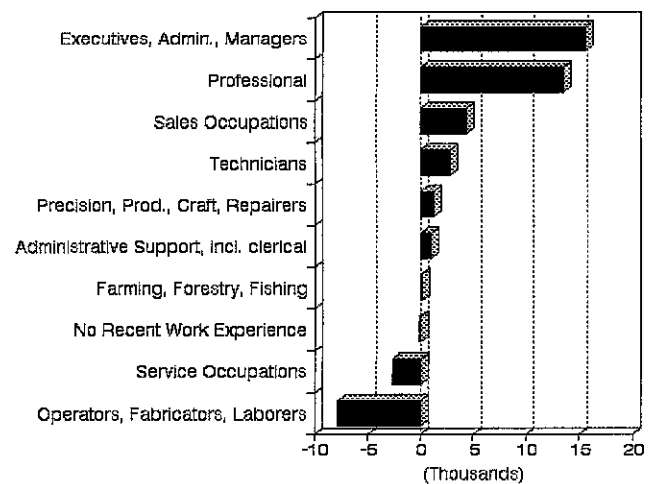
Changes in Occupations: 1980-1990
White Males



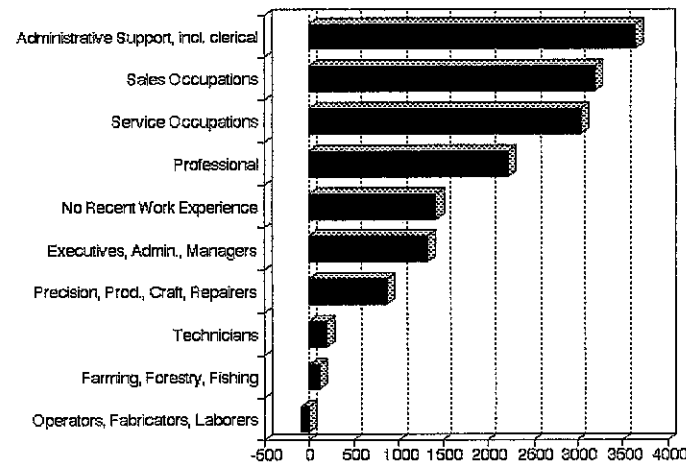
Changes in Occupations: 1980-1990
Minority Males



Changes in Occupations: 1980-1990
White Females



Changes in Occupations: 1980-1990
Minority Females



Labor Force Availability by Industry

The 1990 U.S. Census EEO supplemental tabulations file permits availability analysis for the total population, females and minorities by workers' occupations and the industrial sectors in which they worked. The matrices of the labor force shown in the following tables group the 99 industries identified by the census into twelve industrial classes: construction; nondurable manufacturing; durable manufacturing; transportation, communications, and other utilities; wholesale trade; retail trade; finance, insurance and real estate; business and repair services; personal services; professional services; public administration (government); and an agriculture, forestry, fishing and mining sector. The 512 occupational titles used by the census are shown in nine occupational categories. Some occupations are industry-specific, as in the professional services sector where 90 percent of teachers and health care professionals are concentrated. The majority of occupations, however, are spread across industrial sectors -- particularly for managers and administrators; administrative support occupations, and service occupations.

Females were heavily concentrated in the professional services industries, which included 34.7 percent of all female labor force participants. Health, teaching and administrative support occupations made up almost 75 percent of the 119,509 occupations for females in this sector. Administrative support occupations, including clerical positions, were spread across all industrial sectors and were dominated by women in every sector. In the finance, insurance and real estate (F.I.R.E.) sector and the transportation, communications and other utilities (T.C.U.) sector well over half of the occupations held by women were in administrative support.

Minorities were most heavily concentrated in the occupational grouping of services (22.1 percent) and operators, fabricators and laborers (27 percent). Over half of the service jobs were with professional services or retail trade industries, and over half of the operators, fabricators and laborers were in the durable and non-durable manufacturing sectors.

1990 U.S. Census EEO Special Tabulations File -- Milwaukee SMSA
CIVILIAN LABOR FORCE WITH RECENT EMPLOYMENT EXPERIENCE

OCCUPATIONAL GROUPS FOR:	Manufacturing												
TOTAL POPULATION	Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All
Executives, Administrators, Managers	3,618	6,781	13,871	5,207	4,426	10,200	12,423	5,520	3,308	18,509	3,870	432	88,165
Professional													
Engineers, Architects & Surveyors	798	579	5,651	713	548	83	178	158	29	1,895	324	116	11,072
Math and Computer Sciences	62	301	1,226	395	264	290	768	1,052	10	611	86	15	5,080
Health Diagnosing, Assessment & Treating	8	48	99	5	79	748	255	225	106	22,662	112	242	24,589
Teachers	14	41	159	88	49	122	30	18	722	29,988	190	29	31,450
Other Professionals	212	2,345	1,836	943	513	1,603	764	1,752	1,925	15,974	1,585	301	29,753
Technicians													
Health	5	22	71	164	37	278	34	92	23	9,272	111	85	10,194
Other Technicians	532	1,252	5,059	1,372	755	470	967	1,831	106	2,816	632	123	15,915
Sales													
Supervisors and Proprietors	56	214	417	106	3,776	12,411	2,041	281	176	89	0	39	19,606
Sales Representatives	770	2,660	3,414	1,283	7,467	85	9,640	1,667	86	532	26	138	27,768
Sales Workers, Other Sales Related	34	926	53	120	521	35,102	210	652	1,689	1,105	111	22	40,545
Administrative Support, incl. Clerical													
Supervisors, Administrative Support	64	349	645	606	274	368	1,228	308	58	764	543	10	5,217
Secretaries, Stenographers, Typists	923	1,288	2,957	1,044	1,371	1,137	4,037	1,890	395	12,542	1,743	118	29,445
Information Clerks	89	305	335	1,389	271	698	819	519	909	3,959	205	88	9,586
Records Processing Occupations	646	1,222	2,364	1,432	1,502	3,008	3,540	1,064	489	4,559	411	132	20,369
Material Recording, Sched., Distr. Clerks	343	1,692	4,222	1,625	1,520	4,592	273	510	198	713	470	75	16,233
Adjusters and Investigators	16	674	550	606	159	283	5,315	571	109	583	153	11	9,030
Mail and Message Distr. Occupations	0	342	145	4,914	73	116	625	365	34	478	18	0	7,110
Other Admin. Support Occupations	279	1,779	3,088	2,288	1,357	2,247	7,403	2,288	434	7,314	1,486	63	30,026
Service Occupations													
Private Household Workers	0	0	0	0	0	0	0	0	1,444	0	0	0	1,444
Protective Service Occupations	18	139	228	98	53	353	351	1,583	273	829	6,426	21	10,372
Food Prep. and Service Occupations	22	218	111	36	153	27,893	189	79	2,189	4,692	87	22	35,691
Health Service Occupations	0	13	46	50	13	83	26	128	215	14,143	50	0	14,767
Cleaning/Building Service Occupations	164	693	1,480	470	339	1,500	1,382	4,469	2,299	6,492	473	75	19,836
Personal Service Occupations	2	68	41	419	13	697	75	83	5,957	4,941	95	2	12,393
Farming, Forestry and Fishing	80	43	87	35	119	107	250	20	606	252	145	4,648	6,392
Precision, Production, Craft & Repair													
Mechanics and Repairers	1,195	1,383	4,140	3,157	1,790	3,572	216	4,530	227	648	411	96	21,365
Construction Trades	17,521	434	1,759	923	414	810	308	372	134	612	131	79	23,497
Precision Production	633	4,937	23,196	717	1,106	3,029	57	620	427	725	83	34	35,564
Plant & Sytem, Extractive Occupations	162	188	471	350	79	26	97	56	65	275	38	177	1,984
Operators, Fabricators, and Laborers													
Machine Operators	311	14,552	17,815	412	890	649	246	1,160	1,489	1,048	80	83	38,735
Fabricators, Assemblers, Hand Working	523	1,999	14,993	285	675	504	23	1,245	24	460	21	75	20,827
Inspectors/Testers/Samplers/Weighers	23	1,182	3,667	198	235	252	44	111	33	71	37	9	5,862
Motor Vehicle Operators	745	1,091	1,072	10,725	2,197	2,675	60	942	287	807	162	218	20,981
Material Moving Equipment Operators	1,158	823	2,098	304	434	207	0	87	23	6	102	105	5,347
Freight, Stock and Material Handlers	123	1,055	1,132	1,630	809	4,731	33	184	87	119	73	21	9,997
Laborers	3,480	1,432	2,866	529	1,166	837	162	878	233	321	219	117	12,240
Other Helpers and Related Occupations	278	1,075	767	787	403	2,133	27	1,057	34	73	78	31	6,743
TOTAL	34,907	54,145	122,131	45,425	35,850	123,899	54,096	38,367	26,852	170,879	20,787	7,852	735,190

*TCU = Transportation, Communication, and Utilities; FIRE = Finance, Insurance, and Real Estate; Agri. = Agriculture, Forestry, Fishing, and Mining

1990 U.S. Census EEO Special Tabulations File -- Milwaukee SMSA
CIVILIAN LABOR FORCE WITH RECENT EMPLOYMENT EXPERIENCE

OCCUPATIONAL GROUPS FOR:

TOTAL POPULATION	Construction	Manufacturing		TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All
Executives, Administrators, Managers	3,618	6,781	13,871	5,207	4,426	10,200	12,423	5,520	3,308	18,509	3,870	432	88,165
Professional Occupations	1,094	3,314	8,971	2,144	1,453	2,846	1,995	3,205	2,792	71,130	2,297	703	101,944
Technicians	537	1,274	5,130	1,536	792	748	1,001	1,923	129	12,088	743	208	26,109
Sales	860	3,800	3,884	1,509	11,764	47,598	11,891	2,600	1,951	1,726	137	199	87,919
Administrative Support, incl. Clerical	2,360	7,651	14,306	13,904	6,527	12,449	23,240	7,515	2,626	30,912	5,029	497	127,016
Service Occupations	206	1,131	1,906	1,073	571	30,526	2,023	6,342	12,377	31,097	7,131	120	94,503
Farming, Forestry and Fishing	80	43	87	35	119	107	250	20	606	252	145	4,648	6,392
Precision, Production, Craft & Repair	19,511	6,942	29,566	5,147	3,389	7,437	678	5,578	853	2,260	663	386	82,410
Operators, Fabricators, and Laborers	6,641	23,209	44,410	14,870	6,809	11,988	595	5,664	2,210	2,905	772	659	120,732
TOTAL	34,907	54,145	122,131	45,425	35,850	123,899	54,096	38,367	26,852	170,879	20,787	7,852	735,190

FEMALES

Executives, Administrators, Managers	506	2,053	3,004	1,758	1,564	4,895	6,218	2,183	1,492	9,927	1,624	111	35,335
Professional Occupations	147	1,243	1,080	700	454	1,539	1,049	1,477	1,306	45,159	933	237	55,324
Technicians	88	445	611	285	155	462	569	513	23	9,541	223	151	13,066
Sales	151	1,214	755	604	2,456	29,761	4,861	1,103	1,352	1,019	68	64	43,408
Administrative Support, incl. Clerical	1,942	5,219	9,603	8,087	4,802	8,989	20,208	5,913	2,135	28,357	3,968	411	99,634
Service Occupations	70	308	423	481	191	17,855	863	2,650	8,679	23,733	1,187	48	56,488
Farming, Forestry and Fishing	9	0	20	19	35	58	0	0	61	41	37	1,189	1,469
Precision, Production, Craft & Repair	300	1,265	4,391	283	268	1,285	76	314	281	519	5	6	8,993
Operators, Fabricators, and Laborers	190	8,357	12,105	1,853	1,077	3,184	224	1,619	1,048	1,213	78	102	31,050
SUBTOTAL	3,403	20,104	31,992	14,070	11,002	68,028	34,068	15,772	16,377	119,509	8,123	2,319	344,767

MINORITIES

Executives, Administrators, Managers	109	301	404	401	109	958	700	436	235	1,530	537	11	5,731
Professional Occupations	66	179	493	188	102	148	131	171	222	7,268	342	53	9,363
Technicians	26	170	334	129	90	57	44	135	18	1,282	83	9	2,377
Sales	61	365	114	192	544	5,972	641	154	183	130	42	5	8,403
Administrative Support, incl. Clerical	177	706	1,154	2,550	473	1,430	3,661	1,005	206	4,367	1,115	22	16,866
Service Occupations	29	203	364	138	131	5,860	417	2,283	2,384	9,658	1,176	12	22,655
Farming, Forestry and Fishing	16	0	41	6	52	12	41	0	113	27	48	272	628
Precision, Production, Craft & Repair	1,638	1,018	3,239	562	374	791	98	546	156	225	69	42	8,758
Operators, Fabricators, and Laborers	1,029	5,565	10,641	3,457	1,407	1,956	125	2,029	654	570	169	84	27,686
SUBTOTAL	3,151	8,507	16,784	7,623	3,282	17,184	5,858	6,759	4,171	25,057	3,581	510	102,467

*TCU = Transportation, Communication, and Utilities; FIRE = Finance, Insurance, and Real Estate; Agri. = Agriculture, Forestry, Fishing, and Mining

Growth and Declines in Specific Occupational Titles of Milwaukee Area Workers

An examination of 492 common occupational titles held by Milwaukee workers in 1980 and 1990 indicates important changes in the Milwaukee labor force. The Milwaukee area showed large increases in sales supervisors and proprietors, and managerial and administrative positions. The importance of Milwaukee finance and insurance jobs was seen in the growth of occupations for accountants, auditors, investigators and adjusters. In some occupations, such as general office clerks and secretaries, declines may be due to technological innovations as well as changes in job titles. Overall, secretarial occupations showed a decline, while other supportive administrative positions and computer systems analysts showed increases. The growing impact of the sales sector was seen in increases for management positions, along with sales representatives and sales occupations in other business services.

Occupational declines in Milwaukee over the last decade were most serious in the manufacturing sector and included decreases in machine operators, production supervisors, assemblers, welders and putters, grinding occupations, hand packers, production inspectors and examiners, lathe and turning machine operators, and punching and stamping press machine operators.

Changes in Occupations of Milwaukee Area Workers: 1980-1990

GROWTH OCCUPATIONS	1980-1990 INCREASE	OCCUPATIONS IN DECLINE	1980-1990 DECREASE
Supervisors/proprietors, sales, salaried	10,531	Machine oper., misc. and not spec.	-6,702
Managers and administrators, other	7,249	Supervisors, production occupations	-4,027
Registered nurses	4,335	Assemblers	-3,980
Cashiers	3,538	Welders and cutters	-2,775
Accountants and auditors	3,243	Waiters and waitresses	-2,508
Cooks	2,705	Grinding, abrading, buffing, polishing	-2,458
Investigators and adjusters, exc. insurance	2,694	Hand packers and packagers	-2,343
Teachers, elementary school	2,566	Prod. inspectors, checkers, examiners	-2,190
Management rel. occupations, n.e.c.	2,535	General office clerks	-2,040
Insurance adjusters, examiners, invest.	2,152	Sales workers, other commodities	-2,029
Sales reps, mining, manuf., wholesale	2,101	Lathe and turning machine operators	-1,937
Nursing aides, orderlies, and attendants	1,921	Secretaries	-1,770
Admin. support occupations, n.e.c.	1,885	Drilling and boring machine operators	-1,408
Electrical and electronic equip. assemblers	1,823	Teachers, secondary school	-1,366
Health technologists and technicians, n.e.c.	1,723	Non-construction laborers	-1,333
Computer systems analysts and scientists	1,707	Lathe and turning machine set-up oper.	-1,316
Machinists, except apprentices	1,674	Health aides, except nursing	-1,306
Other financial officers	1,600	Bookkeepers, accounting, auditing clerks	-1,253
Sales occupations, other business services	1,560	Supervisors, construction n.e.c.	-1,243
Receptionists	1,455	Punching and stamping press machine oper.	-1,239

n.e.c. = not elsewhere classified.

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Top Occupations Listed by Milwaukee Workers: Analysis by Race and Gender

The Milwaukee area labor force was analyzed by race, ethnicity and gender for occupational titles listed in both 1980 and 1990. For all racial groups, workers were distributed in white collar as well as lower-paying secondary market jobs. White males showed large numbers of managers and administrators, sales supervisors, accountants and auditors, marketing, advertising and public relations managers, and lawyers. Top occupations for white men also included truck drivers, janitors and cleaners, non-construction laborers, cooks, automobile mechanics, and stock handlers and baggers. Manufacturing work continued to rank among the top occupations, but the number of workers in these occupations showed declines over the last decade. The top occupations for white women included the traditional secretary, nurse and teacher. However, white women made substantial advances into managerial and administrative occupations. Clerical and administrative support jobs remained important with leading occupations including bookkeepers, accounting and auditing clerks, general office clerks, receptionists, accountants, auditors, typists and data-entry keyers.

African American males saw increases in occupations as managers and administrators and sales supervisors and proprietors. Leading occupations for African American men were most often laboring, manufacturing or service work. The top four occupations for African American males were janitors and cleaners, truck drivers, assemblers, and cooks. The last decade showed a doubling of occupations for bus drivers, guards and private police, nursing aides, orderlies and attendants, stock handlers and baggers, stock and inventory clerks, and construction laborers. African American women showed a concentration of occupations in human services, as elementary school teachers, child care providers and workers, teachers' assistants, social workers, nursing aides, orderlies and attendants, and maids. Occupations also centered around clerical and administrative support work, with African American women showing increases in occupations such as secretaries, general office clerks, bookkeepers, accounting and auditing clerks, where overall metropolitan area declines were noted.

The leading occupations for Hispanic males were in blue collar work, including laborers, machine operators, janitors and cleaners, machinists, assemblers, welders and cutters. Hispanic men listed relatively high numbers in supervisory positions as managers and administrators, production supervisors, and sales supervisors and proprietors. Top occupations for Hispanic women included secretaries, cashiers, assemblers, and janitors and cleaners. Hispanic women also showed increases as elementary school teachers and salaried managers and administrators.

Asian American men showed leading occupations which required high levels of education, e.g. physicians, college teachers, electrical and electronic engineers, as well as work in lesser skilled jobs such as cooks, janitors and cleaners, assemblers and laborers. The leading occupations for Asian women included waitresses, assemblers, and managers and administrators. Asian women also listed relatively high numbers in occupations requiring college or beyond, including physicians, elementary school teachers and college teachers. Native American men listed top occupations as truck drivers, managers and administrators, janitors and cleaners, and non-construction laborers. Native American women held occupations in highest numbers as nursing aides, orderlies and attendants, janitors and cleaners, cashiers, and general office clerks.

Top 20 Occupations for White Males in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Managers and administrators, other	27,238	25,483	6.9%
Truck drivers	12,960	13,249	-2.2%
Supervisors and proprietors, sales, salaried	10,911	4,948	120.5%
Sales representatives, mining, manuf., wholesale	8,909	8,170	9.0%
Janitors and cleaners	7,714	9,024	-14.5%
Supervisors, production occupations	7,646	11,597	-34.1%
Machinists, except apprentices	6,754	5,326	26.8%
Machine operators, misc. and not specified	5,801	9,329	-37.8%
Assemblers	5,716	7,398	-22.7%
Carpenters, except apprentices	5,259	4,440	18.4%
Accountants and auditors	4,871	4,501	8.2%
Non-construction laborers	4,527	5,656	-20.0%
Cooks	3,956	3,084	28.3%
Teachers, elementary school	3,833	3,741	2.5%
Automobile mechanics, except apprentices	3,828	4,659	-17.8%
Welders and cutters	3,716	5,418	-31.4%
Managers, marketing, advertising, public relations	3,624	4,827	-24.9%
Lawyers	3,505	2,966	18.2%
Sales workers, other commodities	3,224	2,589	24.5%
Stock handlers and baggers	3,095	3,686	-16.0%

Top 20 Occupations for White Females in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Secretaries	21,661	23,715	-8.7%
Registered nurses	12,349	8,845	39.6%
Managers and administrators, other	12,290	7,656	60.5%
Teachers, elementary school	12,178	10,336	17.8%
Cashiers	10,689	10,102	5.8%
Bookkeepers, accounting, auditing clerks	9,182	10,432	-12.0%
Sales workers, other commodities	6,975	9,755	-28.5%
Waitresses	6,896	9,701	-28.9%
General office clerks	6,865	8,829	-22.2%
Nursing aides, orderlies, and attendants	6,167	5,964	3.4%
Supervisors and proprietors, sales, salaried	5,927	2,163	174.0%
Assemblers	4,966	7,885	-37.0%
Receptionists	4,924	3,576	37.7%
Accountants and auditors	4,904	2,300	113.2%
Typists	4,004	4,572	-12.4%
Cooks	3,988	3,755	6.2%
Data-entry keyers	3,760	3,098	21.4%
Child care providers, workers, teachers assistants	3,500	2,552	37.1%
Janitors and cleaners	3,483	3,571	-2.5%
Hairdressers and cosmetologists	3,421	2,560	33.6%

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Top 20 Occupations for African American Males in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Janitors and cleaners	1,998	1,626	22.9%
Truck drivers	1,573	895	75.8%
Assemblers	1,500	1,170	28.2%
Cooks	1,289	415	210.6%
Non-construction laborers	1,226	1,375	-10.8%
Machine operators, misc. and not specified	1,194	1,897	-37.1%
Managers and administrators, other	925	710	30.3%
Bus drivers	884	373	137.0%
Guards and police, except public service	741	322	130.1%
Welders and cutters	686	1,468	-53.3%
Nursing aides, orderlies, and attendants	621	259	139.8%
Industrial truck and tractor equipment operators	585	652	-10.3%
Stock handlers and baggers	558	276	102.2%
Freight, stock, material handlers, n.e.c.	533	296	80.1%
Stock and inventory clerks	520	256	103.1%
Misc. food preparation occupations	509	270	88.5%
Construction laborers	507	238	113.0%
Traffic, shipping, and receiving clerks	435	247	76.1%
Supervisors and proprietors, sales, salaried	417	183	127.9%
Machinists, except apprentices	402	440	-8.6%

Top 20 Occupations for African American Females in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Nursing aides, orderlies, and attendants	3,680	2,584	42.4%
Cashiers	2,302	617	273.1%
Assemblers	1,587	1,482	7.1%
Secretaries	1,267	989	28.1%
Janitors and cleaners	1,240	877	41.4%
Teachers, elementary school	1,200	832	44.2%
General office clerks	1,102	818	34.7%
Maids and housemen	914	743	23.0%
Cooks	905	641	41.2%
Machine operators, misc. and not specified	871	1,328	-34.4%
Registered nurses	761	286	166.1%
Data-entry keyers	732	586	24.9%
Managers and administrators, other	616	437	41.0%
Typists	603	644	-6.4%
Misc. food preparation occupations	601	322	86.6%
Child care providers, workers, teachers assistants	570	554	2.9%
Postal clerks, except mail carriers	483	202	139.1%
Social workers	474	381	24.4%
Bookkeepers, accounting, auditing clerks	467	364	28.3%
Non-construction laborers	454	450	-0.9%

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Top 20 Occupations for Hispanic Males in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Non-construction laborers	669	560	19.5%
Machine operators, misc. and not specified	585	719	-18.6%
Janitors and cleaners	478	332	44.0%
Machinists, except apprentices	376	172	118.6%
Assemblers	341	311	9.6%
Welders and cutters	327	300	9.0%
Managers and administrators, others	318	190	67.4%
Cooks	304	96	216.7%
Misc. food preparation occupations	289	85	240.0%
Supervisors, production occupations	252	149	69.1%
Truck drivers	220	141	56.0%
Industrial truck and tractor equipment operators	200	159	25.8%
Traffic, shipping, and receiving clerks	173	119	45.4%
Butchers and meat cutters	157	140	12.1%
Painters, construction and maintenance	146	37	294.6%
Supervisors and proprietors, sales, salaried	135	49	175.5%
Grinding, abrading, buffing, and polishing machine oper.	132	429	-69.2%
Freight, stock, material handlers, n.e.c.	129	68	89.7%
Stock handlers and baggers	110	90	22.2%
Groundskeepers and gardeners, except farm	109	28	289.3%

Top 20 Occupations for Hispanic Females in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Secretaries	444	329	35.0%
Cashiers	444	166	167.5%
Assemblers	342	288	18.8%
Janitors and cleaners	312	122	155.7%
Nursing aides, orderlies, and attendants	231	183	26.2%
Textile sewing machine operators	213	66	222.7%
Teachers, elementary school	205	82	150.0%
Receptionists	199	112	77.7%
Waitresses	196	152	28.9%
General office clerks	182	177	2.8%
Typists	177	117	51.3%
Cooks	156	81	92.6%
Managers and administrators, other	146	63	131.7%
Machine operators, misc. and not specified	145	247	-41.3%
Hairdressers and cosmetologists	130	66	97.0%
Maids and housemen	115	124	-7.3%
Electrical and electronic equipment assemblers	111	29	282.8%
Data-entry keyers	111	43	158.1%
Sales workers, other commodities	109	101	7.9%
Hand packers and packagers	109	137	-20.4%

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Top 20 Occupations for Asian Males in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Physicians	307	205	49.8%
Managers and administrators, other	245	89	175.3%
Postsecondary teachers, subject not specified	225	77	192.2%
Cooks	199	95	109.5%
Janitors and cleaners	123	38	223.7%
Computer systems analysts and scientists	100	13	669.2%
Supervisors and proprietors, sales, salaried	92	28	228.6%
Technicians, n.e.c.	91	46	97.8%
Electrical and electronic engineers	84	50	68.0%
Machine operators, misc. and not specified	66	84	-21.4%
Misc. food preparation occupations	64	15	326.7%
Assemblers	64	32	100.0%
Drafting occupations	57	7	714.3%
Non-construction laborers	52	13	300.0%
Supervisors and proprietors, sales, self-employed	50	10	400.0%
Machinists, except apprentices	46	29	58.6%
Computer operators	46	18	155.6%
Cashiers	45	5	800.0%
Social workers	44	0	--
Computer programmers	43	16	168.75%

Top 20 Occupations for Asian Females in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Waitresses	146	131	11.5%
Assemblers	139	52	167.3%
Managers and administrators, other	112	30	273.3%
Physicians	111	34	226.5%
Teachers, elementary school	105	42	150.0%
Cashiers	96	30	220.0%
Postsecondary teachers, subject not specified	89	44	102.3%
Electrical and electronic equipment assemblers	87	10	770.0%
Cooks	80	51	56.9%
Secretaries	76	51	49.0%
Textile sewing machine operators	75	61	23.0%
Nursing aides, orderlies, and attendants	71	70	1.4%
Misc. food preparation occupations	71	15	373.3%
Registered nurses	67	47	42.6%
Data-entry keyers	61	38	60.5%
General office clerks	55	34	61.8%
Machine operators, misc. and not specified	54	30	80.0%
Supervisors and proprietors, sales, salaried	53	0	--
Bookkeepers, accounting, auditing clerks	52	77	-32.5%
Insurance adjusters, examiners, investigators	42	0	--

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Top 20 Occupations for Native American Males in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Truck drivers	118	70	68.6%
Managers and administrators, other	78	33	136.4%
Janitors and cleaners	75	65	15.4%
Non-construction laborers	73	39	87.2%
Roofers	67	34	97.1%
Welders and cutters	66	115	-42.6%
Supervisors and proprietors, sales, salaried	54	11	390.9%
Freight, stock, material handlers, n.e.c.	51	42	21.4%
Stock handlers and baggers	44	0	--
Construction laborers	41	5	720.0%
Carpenters, except apprentices	39	0	--
Social workers	32	14	128.6%
Assemblers	31	35	-11.4%
Supervisors, production occupations	31	16	93.8%
Machinists, except apprentices	29	50	-42.0%
Painters, construction and maintenance	28	17	64.7%
Industrial machinery repairers	26	29	-10.3%
Automobile mechanics, except apprentices	22	13	69.2%
Guards and police, except public service	22	16	37.5%
Sheriffs, bailiffs, other law enforcement officers	22	5	340.0%

Top 20 Occupations for Native American Females in 1990: Milwaukee SMSA

OCCUPATIONS	1990 TOTAL	1980 TOTAL	% CHANGE
Nursing aides, orderlies, and attendants	104	63	65.1%
Janitors and cleaners	75	22	240.9%
Cashiers	71	40	77.5%
General office clerks	61	15	306.7%
Secretaries	59	102	-42.2%
Cooks	55	18	205.6%
Social workers	53	14	278.6%
Assemblers	53	58	-8.6%
Supervisors and proprietors, sales, salaried	46	0	--
Waitresses	45	80	-43.8%
Machine operators, misc. and not specified	41	37	10.8%
Child care providers, workers, teachers assistants	35	15	133.3%
Sales workers, other commodities	33	47	-29.8%
Packaging and filling machine operators	30	0	--
Registered nurses	29	25	16.0%
Hairdressers and cosmetologists	28	12	133.3%
Food counter, fountain, related occupations	27	8	237.5%
Typists	26	17	52.9%
Electrical and electronic equipment assemblers	26	17	52.9%
Non-construction laborers	25	4	525.0%

University of Wisconsin-Milwaukee, Employment and Training Institute

Minorities in Personnel and Purchasing Decision-Making Occupations

Each industrial sector was examined for the metropolitan Milwaukee labor force in 1990 to determine the extent to which minorities held occupations as administrators in personnel and purchasing. Over the long run, employment of minority persons in personnel and purchasing supervisory positions may help companies gain increased awareness of minority businesses and job applicants who could serve their businesses. Positions analyzed below include personnel managers; personnel, training and labor relations specialists; purchasing managers; purchasing agents and buyers.

Personnel Administrators in 1990: Milwaukee SMSA

INDUSTRIAL SECTOR	PERSONNEL ADMINISTRATORS	PERCENT MINORITIES
Government	282	19.1%
Transportation, Communication, Utilities	351	17.9%
Professional and Related Services	1089	15.1%
Business and Repair Services	787	14.1%
Wholesale Trade	174	10.3%
Manufacturing: Durable	770	9.6%
Personal Services	86	8.1%
Manufacturing: Non-Durable	321	8.1%
Finance, Insurance, Real Estate	454	7.3%
Retail Trade	583	7.0%
Construction	69	0.0%
Agriculture, Forestry, Mining	26	0.0%

Governmental agencies and the transportation, communications and utilities industries showed the best records for minorities in occupations as personnel managers and personnel, training and labor relations specialists. The construction trades showed no persons in personnel positions, according to the 1990 U.S. Census. Governmental units and wholesale trade businesses both showed more than 20 percent of their purchasing managers, purchasing agents and buyers as minorities. However, less than ten percent of purchasing administrators in other industries were minorities, and four sectors showed no minorities.

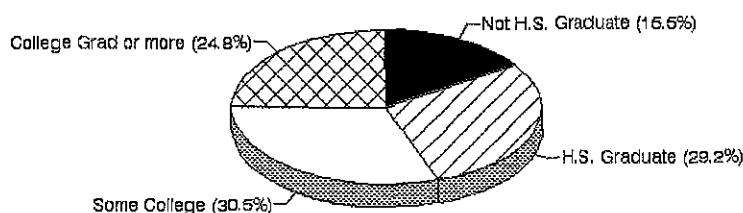
Purchasing Administrators in 1990: Milwaukee SMSA

INDUSTRIAL SECTOR	PURCHASING ADMINISTRATORS	PERCENT MINORITIES
Government	60	26.7%
Wholesale Trade	146	20.5%
Finance, Insurance, Real Estate	149	8.7%
Construction	197	4.6%
Retail Trade	1273	3.8%
Manufacturing: Non-Durable	324	3.7%
Professional and Related Services	322	2.2%
Manufacturing: Durable	1186	1.5%
Agriculture, Forestry, Mining	104	0.0%
Transportation, Communication, Utilities	67	0.0%
Business and Repair Services	28	0.0%
Personal Services	15	0.0%

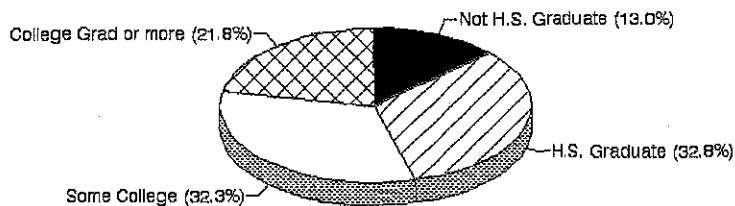
II. Educational Background of the Milwaukee Area Labor Force

The 1990 U.S. Census/EEO file shows the educational background of all Milwaukee area labor force participants by occupational title. A large number of Milwaukee area workers are highly educated -- with 24.8 percent of men and 21.8 percent of women having completed college or a graduate school program, and 30.5 percent of men and 32.3 percent of women having some college or completion of an associate degree program. The educational levels of Milwaukee workers are shown below by gender and in Appendix B by race/ethnicity, gender and occupation.

Educational Attainment of Males
in the Milwaukee Labor Force: 1990



Educational Attainment of Females
in the Milwaukee Labor Force: 1990



Employment Rates for High School Graduates and Dropouts

The 1990 U.S. Census five percent sample was used to compute employment rates in the Milwaukee metropolitan area for young adults who were high school dropouts as well as for high school graduates with no post-secondary educational training. **This analysis considers young adults, whether in the labor force or not, who were ages 18-29, had no post-secondary education, and were not currently enrolled in school.**

The importance of completing high school can be best seen in the employment levels of this young adult population.

- High school graduates, both men and women, were much more likely to be employed than the dropouts. For the Milwaukee metropolitan area, 86 percent of male high school graduates and 74 percent of female graduates, aged 18-29 and not enrolled in school, were employed in 1990.
- Only 59 percent of male high school dropouts and 41 percent of female dropouts were employed.

Employment rates were markedly different for whites and minorities, both for high school graduates and for high school dropouts. When examined by race, the impacts of high school non-completion are particularly troubling.

- Of white males who completed high school, 91 percent were employed, compared to 63 percent of black high school graduates and 74 percent of Hispanic male graduates.
- The employment rate for white female high school graduates was 80 percent, compared to a 47 percent rate for black female graduates and a 58 percent rate for Hispanic female graduates.
- For the population aged 18-29 and not enrolled in school in 1990, over half of young black and Hispanic men and black women were high school dropouts.
- Black male dropouts faced an employment rate half that of white male dropouts. Only 34 percent of black male dropouts were employed, compared to a 78 percent employment rate for white male dropouts. Hispanic male dropouts showed an employment rate of 61 percent.
- Only one-fourth (26 percent) of black and Hispanic female dropouts were employed. For young white women in the SMSA, 57 percent of white female dropouts were employed in 1990.

**Employment Rates for Persons Not Enrolled in School, Ages 18-29 Years
Milwaukee SMSA: 1990**

<u>Population</u>	<u>LESS THAN HIGH SCHOOL:</u>		<u>HIGH SCHOOL GRADUATE:</u>	
	<u>Total</u>	<u>% Employed</u>	<u>Total</u>	<u>% Employed</u>
TOTAL MEN	17,038	59%	33,495	86%
White Men	8,405	78%	27,029	91%
Black Men	5,992	34%	4,921	63%
Hispanic Men	2,022	61%	1,203	74%
TOTAL WOMEN	15,341	41%	34,367	74%
White Women	7,156	57%	26,818	80%
Black Women	6,318	26%	5,682	47%
Hispanic Women	1,215	26%	1,465	58%

Occupations Held by High School Graduates and High School Non-Completers

Workers lacking a high school diploma may be particularly vulnerable in Milwaukee's changing economy. The following analysis reviews the leading occupational groups (out of 69 clusters of occupations) for persons in the Milwaukee area who lacked a high school degree. These include workers of all ages, from recent high school dropouts to older adults who entered the labor force when degree attainment received less emphasis.

While employment patterns varied by gender and racial and ethnic group, the largest number of high school non-completers held occupations in food preparation and service. **One out of every eight high school dropouts in the Milwaukee labor force listed an occupation in food preparation and service, compared to one out of every 28 workers with a high school degree or better.** Furthermore, over half of all high school dropouts were clustered in five of the 69 occupational clusters: food preparation and service; machine operators, non-precision; retail and personal sales; cleaning and building services; and fabricator, assembler and handworking occupations. In addition, women who had not completed high school listed occupations in health services and male dropouts were motor vehicle operators and in precision production.

The tables below show the top five occupations for high school non-completers and high school graduates with no post-secondary education for all age workers in the labor force.

Top Occupational Groupings for Male High School Graduates and Dropouts
(Does Not Include Labor Force Participants With Post-Secondary Education)

Milwaukee SMSA, 1990:**White Males**

<u>High School Graduates</u> (N = 99,525)	<u>High School Dropouts</u> (N = 42,367)
11,353 precision production 10,801 machine operators and tenders 9,561 construction trades 8,309 mechanics and repairers 7,564 motor vehicle operators	4,061 food preparation and service 3,817 machine operators and tenders 3,505 motor vehicle operators 3,320 construction trades 3,262 precision production
48% of all occupations	42% of all occupations

African American Males

<u>High School Graduates</u> (N = 11,369)	<u>High School Dropouts</u> (N = 12,041)
1,384 machine operators and tenders 1,093 motor vehicle operators 892 cleaning and building service 805 fabricators, assemblers 695 precision production	1,375 machine operators and tenders 1,333 food preparation and service 1,005 cleaning and building service 917 motor vehicle operators 875 fabricators, assemblers
43% of all occupations	46% of all occupations

Hispanic Males

<u>High School Graduates</u> (N = 2,796)	<u>High School Dropouts</u> (N = 5,339)
571 machine operators and tenders 335 precision production 202 food preparation and service 174 construction trades 155 production inspectors	1,029 machine operators and tenders 541 precision production 517 fabricators, assemblers 510 food preparation and service 347 cleaning and building service
51% of all occupations	57% of all occupations

Native American Males

<u>High School Graduates</u> (N = 614)	<u>High School Dropouts</u> (N = 560)
89 machine operators and tenders 75 motor vehicle operators 68 construction trades 45 mechanics and repairers 44 precision production	72 construction trades 58 material handlers 56 laborers, except construction 38 cleaning and building service 34 machine operators and tenders
52% of all occupations	46% of all occupations

Asian Males

<u>High School Graduates</u> (N = 424)	<u>High School Dropouts</u> (N = 642)
86 food preparation and service 47 machine operators and tenders 41 construction trades 35 technologists (non-health) 30 fabricators, assemblers	132 food preparation and service 71 machine operators and tenders 67 cleaning and building service 57 precision production 28 laborers
56% of all occupations	55% of all occupations

Top Occupational Groupings for Female High School Graduates and Dropouts
(Does Not Include Labor Force Participants With Post-Secondary Education)

Milwaukee SMSA, 1990:**White Females**

<u>High School Graduates</u> (n = 98,959)	<u>High School Dropouts</u> (N = 30,184)
12,021 secretaries, stenographers, typists 8,566 sales workers, retail and personal 7,975 misc. administrative support 7,429 food preparation and service 5,451 financial records process.	5,707 sales, retail and personal 5,455 food preparation and service 2,101 machine operators and tenders 1,894 cleaning and building service 1,332 health service
42% of all occupations	55% of all occupations

African American Females

<u>High School Graduates</u> (N = 11,939)	<u>High School Dropouts</u> (N = 10,768)
1,514 health services 985 sales workers, retail and personal 861 machine operators and tenders 854 misc. administrative support 832 cleaning and building service	1,366 health services 1,279 sales, retail and personal 1,181 food preparation and service 1,065 cleaning and building service 946 machine operators and tenders
42% of all occupations	54% of all occupations

Hispanic Females

<u>High School Graduates</u> (N = 2,274)	<u>High School Dropouts</u> (N = 3,004)
241 misc. administrative support 227 secretaries, stenographers, typists 214 sales, retail and personal 170 food preparation and service 154 cleaning and building service	511 machine operators and tenders 375 food preparation and service 335 sales, retail and personal 279 cleaning and building service 231 fabricators, assemblers
44% of all occupations	58% of all occupations

Native American Females

<u>High School Graduates</u> (N = 561)	<u>High School Dropouts</u> (N = 481)
60 machine operators and tenders 52 secretaries, stenographers, typists 50 sales, retail and personal 45 food preparation and service 41 precision production	84 food preparation and service 62 cleaning and building service 38 sales, retail and personal 35 personal services 31 machine operators and tenders
44% of all occupations	52% of all occupations

Asian Females

<u>High School Graduates</u> (N = 580)	<u>High School Dropouts</u> (N = 796)
107 food preparation and service 46 precision production 43 sales, retail and personal 40 misc. administrative support 34 machine operators and tenders	164 food preparation and service 132 machine operators and tenders 116 precision production 81 fabricators, assemblers 30 managerial
47% of all occupations	66% of all occupations

College Graduates in Occupations Typically Requiring Less Education

Using a conservative methodology, occupations were identified where at least 40 percent of the work force were high school graduates with no post-secondary education or were high school dropouts.¹ This benchmark was used to identify occupations where a college degree would not normally be a requirement for the position. Some persons may seek out lower-skill jobs because of the convenience of the work (e.g. women providing in-home child care, retirees working as news vendors) or interest in the work (e.g. persons working as bakers, hairdressers, or truck drivers). Or they may be working in these fields because they cannot find work in the Milwaukee labor market commensurate with their educational training.

One out of six female college graduates in the Milwaukee metropolitan labor force was in an occupation not requiring a college degree. One out of eight male college graduates had an occupation not appearing to require a degree. Manpower and government planners attempting to stimulate employment for unemployed workers must realize that a significant portion of the Milwaukee labor force which is highly educated may also be underutilized in the current economy. Unemployed persons seeking work face a greater challenge if they must compete with already employed college graduates dissatisfied with or overqualified for their present employment.

College Graduates in the Milwaukee Metropolitan Labor Force: 1990 Census

	<u>Males</u>	<u>Females</u>	<u>Total</u>
Estimated College Grads in Occupations Not Requiring College Completion	12,923	13,568	26,491
Total College Grads in Labor Force	97,319	75,997	173,316
% of College Grads "Overeducated" for Their Occupation	13.3%	17.8%	15.3%

Includes all labor force participants with four or more years of college.

The chart below shows some of the largest occupations for persons with four or more years of college, which appear to be an underutilization of their college degree.

¹ The conservative 40 percent standard omitted a number of occupations traditionally viewed as requiring less than college completion, e.g. hotel clerks, meter readers, public transportation attendants, radio and TV sales workers, and bill collectors. Additionally, occupations were omitted by the standard used which require some technical training but not college completion, e.g. licensed practical nurses, funeral directors, stenographers, and data processing equipment repairers.

**Concentration of Milwaukee Area College Graduates in Occupations
With 40 Percent or More Workers with No Post-Secondary Education**

OCCUPATIONS	NUMBER OF COLLEGE GRADS
Sales workers (see list in note)	2,881
Secretaries and receptionists	2,388
General office and file clerks, typists, data-entry keyers	1,904
Bookkeepers, accounting and auditing clerks	1,205
Managers, food serving and lodging establishments	1,111
Supervisors (see list in note)	1,107
Administrative support occupations, n.e.c.	1,050
Cashiers, bank tellers, sales counter clerks	975
Nursing and health aides, orderlies, attendants	796
Walters, waitresses, bartenders, food counter	741
Clerks: order, stock, inventory, billing, records	686
Truck, bus, taxi drivers, chauffeurs	677
Assemblers, hand packers, packagers	616
Teachers' and welfare service aides, library clerks	530
Janitors, cleaners, maids, servants	497
Postal and mail clerks, carriers	488
Carpenters, painters, cabinet makers	462
Electricians, machinists, plumbers, pipefitters, steamfitters	429
Child care workers, family and household child care	427
Cooks, bakers, butchers, kitchen workers	413
Street and door-to-door sales workers, news vendors	404
Laborers	397
Interviewers, dispatchers, telephone operators	377
Groundskeepers, gardeners, farmers, farm workers	356
Guards and police, except public service	335
Stock handlers, baggers, freight and material handlers	288
Production inspectors, checkers, examiners	271
Expeditors	254
Printing press operators, typesetters, compositors	226
Information clerks, n.e.c.	182
Mechanics: auto and other motor vehicles	179
Traffic, shipping, and receiving clerks	178
Cost and rate clerks, payroll and timekeeping clerks	176
Hairdressers and cosmetologists	137
Dressmakers, tailors, textile sewing operators	103

Sales workers include persons selling apparel, motor vehicles, boats, furniture, home furnishings, hardware, building supplies, shoes, parts, other commodities.

Supervisors include persons supervising construction (n.e.c.), distribution, scheduling and adjustment clerks, food preparation and service workers, cleaning and building workers, personal services occupations, motor vehicle operators, electricians, power transmission installers, painters, paper hangers, plasterers, materials moving equipment operators, carpenters.

III. Analysis of the Employed Population in the Milwaukee SMSA

The 1990 U.S. Census five percent sample was used to examine hiring patterns for the Milwaukee metropolitan area by place of work and county of residence. This analysis of the **employed population** included all civilians employed and at work in the four-county area including commuters living outside the metropolitan area who worked in Milwaukee, Ozaukee, Washington or Waukesha counties. The population was compared to the **available metropolitan labor force**, using 1990 census data, and included all civilian employed and unemployed workers living in Milwaukee, Ozaukee, Washington and Waukesha counties. This section also examines the employment of women and minorities by county and by level of education of the workers.

Employment Patterns for the Metropolitan Area

Two-thirds of jobs in the metropolitan area in 1990 were concentrated in Milwaukee County, 22 percent in Waukesha County, and 9 percent in Ozaukee/Washington counties. Employed Milwaukee County residents were much more likely to work in the same county (86 percent) than in the balance of the metropolitan area (12 percent) or outside the SMSA (2 percent). In Waukesha County, 59 percent of resident workers were employed in the county; in Ozaukee/Washington counties, the figure was 58 percent.

Employment Patterns by County for the Milwaukee SMSA

<u>COUNTY OF RESIDENCE</u>	<u>COUNTY OF WORK:</u>				<u>Total#</u>
	<u>Milwaukee</u>	<u>Waukesha</u>	<u>Ozaukee/ Washington</u>	<u>Outside the Metro Area</u>	
Milwaukee	379,010	44,754	6,316	8,929	439,009
Waukesha	58,056	96,410	2,722	5,629	162,817
Ozaukee/Washington	25,472	8,547	50,964	3,166	88,149
Outside the SMSA	<u>17,602</u>	<u>11,151</u>	<u>6,816</u>		<u>35,569</u>
TOTAL EMPLOYED, AT WORK	480,140	160,862	66,818	17,724	725,544
Percent of Total Employed	66%	22%	9%	3%	100%

Does not include 12,438 persons with a job but not at work the week of the census or 39,520 unemployed persons.

In Waukesha County, the number of jobs generated in the county was only slightly short of the number of employed residents from the county. In Ozaukee/Washington counties, resident workers exceeded available jobs in the counties by 21,331, where 42 percent (37,185) of employed persons commuted to work in other counties. (Most of these workers, 69 percent, commuted to Milwaukee County.) Jobs generated in Milwaukee County exceeded the number of employed Milwaukee County residents, resulting in 41,131 net jobs. Ten percent of Milwaukee County residents worked outside the county, with three-fourths of commuters working in Waukesha County.

Jobs Versus Workers by County: Milwaukee SMSA

	<u>Milwaukee</u>	<u>Waukesha</u>	<u>Ozaukee/Washington</u>
Number of Jobs in County#	480,140	160,862	66,818
Number of Employed Residents in County	439,009	162,817	88,149
Jobs in County Minus Number of Employed Residents	+ 41,131	- 1,955	- 21,331
Percent of Employed Workers Living and Working in Same County	86%	60%	58%
Unemployed Labor Force Participants	32,140	4,974	2,406

Does not include 12,438 persons with a job but not at work the week of the census.

While commuters from other counties in the SMSA obtained employment in Milwaukee County, Milwaukee County residents have not shown the same success in capturing jobs outside the county. For example, one-third (58,056) of Waukesha County residents commuted to Milwaukee County for work, while only 10 percent (44,754) Milwaukee County workers commuted to Waukesha County. Similarly, Milwaukee County workers showed a net job loss of 19,156 in commuting patterns with Ozaukee/Washington counties. In spite of Milwaukee County's surplus of jobs, given these commuting patterns the county showed 32,140 persons unemployed at the time of the census.

Employment by Location for Women and Minorities

Employment patterns for women and minorities working in the metropolitan area were examined by county and compared against the overall availability of women and minorities in the labor force. The analysis showed women generally employed within counties (Milwaukee, Waukesha, Ozaukee/Washington) in proportion to their numbers in the labor force. Minority workers were not employed evenly throughout the metropolitan area, but, reflecting the area's segregated residential housing patterns, were employed primarily in Milwaukee County. Minorities tended to show employment in Milwaukee County proportionate to their share of the labor force but showed under-representation in employment in Waukesha and Ozaukee/Washington county jobs.

- Minorities made up 14 percent of employed **Milwaukee County** residents and 16 percent of workers employed in the county. Ninety-seven (97) percent of employed minorities both lived and worked in the county.
- Minorities comprised 3 percent of the **Waukesha County** residents who were employed and 5 percent of those who worked in the county. Seventy percent of minorities who lived in the county worked in the county, and the balance worked in Milwaukee County.

Almost two-thirds of the minorities working in Waukesha County lived in Milwaukee County.

- Minorities made up less than one percent of Ozaukee/Washington counties residents who were employed in the Milwaukee metropolitan area and 2 percent of all adults working in **Ozaukee/Washington counties**. Most minority residents living in Ozaukee/Washington counties worked in Milwaukee or Waukesha counties, while most minorities who worked in Ozaukee/Washington counties commuted from Milwaukee County.

Level of Education of Employed Workers

The level of education of workers was analyzed by county of employment to describe differences in the work force within the metropolitan area. Five categories of educational attainment for workers were considered: 1) less than a high school diploma, 2) high school graduates or equivalency holders, 3) some college but no degree, 4) associate degree holders, and 5) college graduates or above.

Persons Employed in the Milwaukee SMSA by Level of Education Completed

<u>County of Work</u>	<u>Less Than H. School Diploma</u>	<u>High School Diploma</u>	<u>Some College</u>	<u>Associate Degree</u>	<u>College Degree</u>	<u>Total</u>
Milwaukee	62,916	145,079	113,917	38,808	119,420	480,140
Waukesha	18,849	54,131	39,469	13,335	35,078	160,862
Ozaukee/ Washington	<u>10,701</u>	<u>27,023</u>	<u>12,642</u>	<u>5,368</u>	<u>11,084</u>	<u>66,818</u>
Total Employed	92,466	226,233	166,028	57,511	165,582	707,820

The workforce employed in Milwaukee County tended to be better educated than the force employed in other counties of the SMSA. One-fourth (25 percent) of workers employed in Milwaukee County had completed college, compared to 22 percent of workers employed in Waukesha County and 17 percent of workers in Ozaukee/Washington counties. Ozaukee/Washington counties had the highest proportion of employed workers with less than high school completion -- 16 percent, compared to 13 percent of workers employed in Milwaukee County and 12 percent of workers employed in Waukesha County.

Educational Levels of Employed Workers and Available Labor Force

<u>Educational Level</u>	<u>WORKERS EMPLOYED IN EACH COUNTY:</u>			<u>AVAILABLE LABOR FORCE:</u>	
	<u>Milwaukee</u>	<u>Waukesha</u>	<u>Ozauk/Wash</u>	<u>Minorities</u>	<u>Women</u>
Less than h.s. diploma	13%	12%	16%	31%	13%
High school graduate	30	34	40	29	33
Some college	24	25	19	23	24
Associate degree	8	8	8	6	8
College graduate or more	25	22	17	11	22
TOTAL	100%	100%	100%	100%	100%

The employment patterns of minority workers were analyzed by level of education completed and county of employment. Minorities showed a high concentration among workers with less than a high school diploma and a relatively low proportion holding college degrees. With 31 percent of the minority labor force having less than a high school diploma, access to better paying jobs was limited. As a result of these low levels of educational attainment, the percentages of available minorities in the labor force decreased as educational levels increased. Minorities made up 31 percent of the labor force with less than a high school education, 14 percent of labor force participants with a high school diploma only, and 7 percent of the workforce with a college degree or more.

The minority population with jobs in Milwaukee County exceeded the percentages of available minorities in the labor force across all levels of education. Persons employed in Waukesha County reflected only about one-third of the available minority workforce overall with 5 percent of the employees working in the county listed as minorities compared to 15 percent in the labor force. For Ozaukee/Washington counties, 2 percent of those employed were minorities.

Percent Minority Employed in Each County by Level of Education Completed

<u>County of Work</u>	<u>Less Than H. School Diploma</u>	<u>High School Diploma</u>	<u>Some College</u>	<u>Associate Degree</u>	<u>College Degree</u>	<u>Total</u>
Milwaukee	33%	16%	17%	12%	8%	16%
Waukesha	12	5	6	3	4	5
Ozaukee/ Washington	5	2	2	2	1	2
Total Available Minority Labor Force	31%	14%	15%	10%	7%	15%

The employment of women by level of education completed was also analyzed for the Milwaukee SMSA. Women made up 47 percent of the labor force, 44 percent of employed workers with less than a high school education, 48 percent of employed workers with some college, 50 percent of workers with high school diplomas and of workers with associate degrees,

and 44 percent of employed workers with college degrees. The distribution of women workers compared to the available labor force appeared fairly even across counties. Women appeared to be employed in proportion to their level of availability by educational levels in Milwaukee County as well as in the other counties of the SMSA.

Percent Female Employed in Each County by Level of Education Completed

<u>County of Work</u>	<u>Less Than H. School Diploma</u>	<u>High School Diploma</u>	<u>Some College</u>	<u>Associate Degree</u>	<u>College Degree</u>	<u>Total</u>
Milwaukee	44%	50%	49%	51%	44%	48%
Waukesha	41	49	45	46	42	45
Ozaukee/ Washington	43	50	47	48	43	47
Total Available Female Labor Force	44%	50%	48%	50%	44%	47%

Minority Employment Patterns by Industrial Sector

Affirmative action planning has historically used decennial census data as a primary measure of availability of women and minorities in the labor force and as a benchmark for how well companies are doing in hiring a workforce representative of the local labor market. While individual company data is not available on the demographic characteristics of employees for the metropolitan area, the census does provide information on employment levels by industrial sectors.

The analysis presented here uses the 1990 U.S. Census five percent sample to analyze employment patterns for the four-county Milwaukee metropolitan area. The labor force includes the employed and unemployed population. While hiring patterns may vary widely by employer, data are summarized here by industrial grouping and level of education for purposes of examining the hiring of women and minorities by type of industry. Aggregated employment levels by industry suggest overall hiring goals for minorities which could minimally be set across industry and within sectors for individual employers, based on availability statistics for the metropolitan area.

Employment patterns for minorities were examined by each of twelve industrial sectors and by level of educational attainment to assess minority employment for Milwaukee County employers and for employers in the balance of the metropolitan area. The characteristics of the metropolitan labor force were compared to the general employment trends for industries in Milwaukee County, Waukesha County and the combined Ozaukee/Washington counties area. Employment by industry by level of education was compared to the overall availability of minorities in the metropolitan labor force.

Milwaukee County

Overall, the employment of minorities in Milwaukee County reflected the availability of minorities in the metropolitan labor force. However, two industrial sectors -- wholesale trade and construction -- did not meet the overall 14 percent availability level of minority workers. When level of education was considered, most industrial sectors were at or above the availability of minorities. **The construction and wholesale trade sectors were below the availability standard at all education levels.** Employment levels across industrial sectors in Milwaukee County suggest that hiring goals based on availability are achievable for all industrial sectors.

Minorities with high school diplomas or less were most heavily concentrated in retail trade, manufacturing, and the professional service sectors. Non-durable manufacturing, the professional service, and business and repair sectors most notably exceeded the availability levels for the population with a high school diploma or less. For minorities with an A.A. degree, the transportation, communications, and other utilities (TCU) sector, the finance, insurance and real estate (FIRE) sector, and non-durable manufacturing hired at levels well above the availability standard. Workers with a four-year college degree or more were heavily concentrated (54 percent) in professional services. Notably, government and the transportation, communications and other utilities sectors hired minorities with four year college degrees or more at twice the overall availability level for the metropolitan area.

Waukesha County

Overall, minorities (N=8,776) made up 5 percent of the employed population in Waukesha County, well below the availability standard for the metropolitan area. Those sectors with highest percent minorities for workers with a high school diploma or less included durable manufacturing; the finance, insurance and real estate sector; and wholesale trade. Minorities with an A.A. degree or more were best represented in the transportation, communications and other utilities sector (26 percent), government (16 percent) and personal services (16 percent) where hiring appeared to meet availability in the metropolitan labor force. **Minorities were least likely to be employed in agriculture, construction and professional services in Waukesha County.**

Those sectors which provided the most positions for minorities in the county included durable manufacturing (2,642 occupations), retail trade (1,479 occupations), professional services (824 occupations), and non-durable manufacturing (706 occupations).

Ozaukee/Washington Counties

Few minorities (N=1,411) worked in Ozaukee/Washington counties. Minorities made up 2 percent of all workers employed in the two-county area. Most worked in durable manufacturing (378 occupations) and non-durable manufacturing (378 occupations).

1990 U.S. Census PUMS 5% Sample
 Civilian Labor Force Employed and At Work
 % MINORITIES BY INDUSTRY AND EDUCATION LEVEL

PLACE OF WORK:		Manufacturing				Business Personal Professional								
MILWAUKEE COUNTY		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		28%	43%	30%	33%	24%	26%	36%	44%	27%	47%	25%	30%	33%
High School or GED		9%	18%	16%	14%	11%	14%	17%	14%	18%	24%	16%	9%	16%
Some College		9%	18%	15%	19%	12%	14%	18%	22%	13%	21%	20%	12%	17%
Associates Degree		8%	17%	10%	17%	4%	9%	19%	11%	11%	13%	10%	0%	12%
Bachelors Degree or More		4%	8%	3%	14%	6%	7%	5%	8%	4%	9%	15%	0%	8%
All Educational Levels		11%	20%	16%	17%	11%	16%	15%	19%	17%	17%	17%	11%	16%
N=		2161	5963	11776	6199	2492	11604	5988	4343	3054	21193	2723	314	77810

		Manufacturing				Business Personal Professional								
WAUKESHA COUNTY		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		6%	10%	27%	5%	17%	9%	20%	7%	2%	7%	0%	6%	12%
High School or GED		3%	4%	7%	5%	6%	4%	4%	7%	6%	2%	13%	0%	5%
Some College		2%	4%	5%	10%	8%	6%	6%	7%	3%	4%	9%	0%	6%
Associates Degree		0%	0%	2%	11%	0%	4%	0%	3%	12%	1%	13%	0%	3%
Bachelors Degree or More		4%	7%	5%	15%	1%	3%	5%	2%	4%	2%	3%	0%	4%
All Educational Levels		3%	5%	8%	8%	6%	5%	5%	6%	5%	3%	8%	1%	5%
N=		296	706	2642	629	649	1479	535	447	269	824	276	24	8776

		Manufacturing				Business Personal Professional								
OZAUKEE/WASHINGTON COUNTIES		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		0%	23%	5%	0%	0%	2%	0%	10%	0%	5%	0%	0%	5%
High School or GED		1%	4%	2%	0%	0%	2%	0%	0%	3%	2%	0%	0%	2%
Some College		4%	0%	1%	7%	9%	1%	0%	0%	11%	0%	0%	0%	2%
Associates Degree		17%	2%	2%	0%	0%	0%	0%	9%	0%	1%	0%	0%	2%
Bachelors Degree or More		0%	4%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	1%
All Educational Levels		3%	6%	2%	2%	2%	2%	0%	3%	3%	1%	0%	0%	2%
N=		110	367	378	43	53	201	0	96	72	91	0	0	1411

*TCU = Transportation, Communication, and Utilities; FIRE = Finance, Insurance, and Real Estate; Agri. = Agriculture, Forestry, Fishing, and Mining

Female Employment Patterns by Industrial Sector

Milwaukee County

The construction industries showed the lowest percentages of women employed of the twelve industrial sectors analyzed. While women made up 47 percent of the Milwaukee County labor force, they showed only 7 percent of employed construction workers. The employment rates were lowest for women with less than high school completion. Forty-four percent of labor force participants with less than high school completion were women, but only 6 percent of construction workers with less than high school completion were women. Other industrial sectors with lower levels of employment of women across all educational levels included: durable manufacturing, agriculture, fishing, forestry; and wholesale trade.

The number of women in construction jobs was very low compared to workforce availability for every education level in Milwaukee, Waukesha, and Ozaukee/Washington counties. The Milwaukee County construction sector showed the worst record for employing women. Seven percent of construction workers employed in the county were women, compared to 14 percent of construction workers employed in Waukesha County, and 10 percent of workers employed in Ozaukee/Washington counties.

Waukesha County

In Waukesha County industrial sectors showing lowest percentages of women included: construction (14 percent of employed workers); durable manufacturing (26 percent of workers); wholesale trade (31 percent of workers); and agriculture, forestry and fishing (31 percent of workers employed). The availability of women in the county workforce was 45 percent and in the SMSA labor force was 47 percent. Among high school non-completers and high school graduates with no post-secondary education, women showed highest percentages employed in the professional services sector; finance, insurance and real estate; and personal service industries. Among workers with four years or more of college, women showed lowest employment levels in durable and non-durable manufacturing, wholesale trade, and public administration.

Ozaukee/Washington Counties

Women comprised 47 percent of Ozaukee/Washington counties' workers, but only about half or less of that proportion were employed in construction (10 percent), wholesale trade (26 percent) or agriculture, forestry and fishing (26 percent). Female college graduates showed very low employment in durable manufacturing, government, and business and repair service industries. Women with four or more years of college were dominant in professional services; the transportation, communications and utilities sector; and personal service industries.

1990 U.S. Census PUMS 5% Sample
Civilian Labor Force Employed and At Work
% FEMALES BY INDUSTRY AND EDUCATION LEVEL

PLACE OF WORK:		Manufacturing						Business	Personal	Professional				
MILWAUKEE COUNTY		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		6%	33%	27%	16%	19%	53%	69%	39%	64%	74%	30%	4%	44%
High School or GED		5%	39%	30%	30%	35%	61%	82%	42%	72%	81%	40%	27%	50%
Some College		10%	43%	23%	39%	31%	56%	65%	44%	58%	77%	34%	41%	49%
Associates Degree		9%	27%	15%	37%	20%	53%	70%	39%	61%	83%	28%	36%	51%
Bachelors Degree or More		11%	29%	15%	39%	24%	47%	37%	39%	43%	58%	26%	36%	44%
All Educational Levels		7%	36%	25%	33%	29%	56%	62%	41%	63%	69%	32%	28%	48%
N=		1430	10710	18408	11699	6293	42085	25256	9361	11605	85646	5175	780	228448
		Manufacturing						Business	Personal	Professional				
WAUKESHA COUNTY		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		8%	37%	28%	20%	35%	49%	68%	29%	59%	79%	38%	12%	41%
High School or GED		13%	42%	30%	44%	46%	64%	81%	48%	79%	84%	59%	22%	49%
Some College		15%	31%	29%	28%	27%	56%	68%	44%	57%	82%	48%	49%	45%
Associates Degree		15%	37%	16%	30%	16%	47%	73%	49%	78%	92%	24%	39%	46%
Bachelors Degree or More		29%	25%	15%	28%	21%	44%	39%	38%	54%	59%	25%	40%	42%
All Educational Levels		14%	36%	26%	34%	31%	55%	62%	44%	67%	73%	39%	31%	45%
N=		1314	5370	8317	2511	3460	14885	6442	3469	3730	21545	1274	719	73036
		Manufacturing						Business	Personal	Professional				
OZAUKEE/WASHINGTON COUNTRIES		Construction	Nondurable	Durable	TCU*	Wholesale	Retail	FIRE*	& Repair	Services	Services	Gov't	Agri.*	All
Less than High School		6%	35%	38%	13%	65%	57%	11%	33%	72%	78%	0%	20%	43%
High School or GED		8%	55%	41%	25%	32%	62%	80%	41%	72%	87%	56%	32%	50%
Some College		10%	37%	30%	27%	24%	55%	85%	43%	68%	77%	73%	16%	47%
Associates Degree		0%	32%	17%	34%	75%	50%	56%	55%	89%	97%	17%	31%	48%
Bachelors Degree or More		31%	27%	14%	60%	23%	42%	27%	20%	58%	62%	15%	40%	43%
All Educational Levels		10%	45%	34%	26%	38%	57%	64%	37%	74%	74%	49%	26%	47%
N=		393	2796	5615	708	910	6613	2223	1115	1860	7814	699	606	31352

*TCU = Transportation, Communication, and Utilities; FIRE = Finance, Insurance, and Real Estate; Agri. = Agriculture, Forestry, Fishing, and Mining

Representation of Minorities and Females in Comparable Metropolitan Areas

The employment of minorities and women in the Milwaukee metropolitan area were compared to employment patterns in five other metropolitan areas in the Midwest with populations and economies similar to those of Milwaukee: Cleveland, Columbus, Indianapolis, Kansas City and Pittsburgh. For each metropolitan area, 1990 census data was analyzed to determine the availability of minorities and women in the labor force by educational level. The actual percentages of minorities and women employed in each industrial sector were compared to local availability levels. The analysis found that employment patterns were similar when compared to local availability statistics.

- Minority availability in the labor force varied from 23 percent in Cleveland to 10 percent in Pittsburgh. The Milwaukee metropolitan area showed minority availability rates for high school non-completers similar to those of Cleveland, availability rates for high school graduates similar to those in Columbus and Indianapolis, and rates for college graduates similar to those in Pittsburgh and Indianapolis. Availability rates for females were similar in all six metropolitan areas studied.
- All six metropolitan areas showed the highest minority utilization rates in the service industries, the transportation, communications and utilities sector, and in government. The percentage of minorities employed in these three sectors was at or above the availability level at most education levels.
- The six metropolitan areas analyzed, including Milwaukee, showed lower percentages of minorities employed in construction and wholesale trade than were available in the labor pool. Underrepresentation of minorities was seen at every educational level.
- Milwaukee showed proportionately higher rates of minority employment in manufacturing, retail and insurance sectors. Employment of minorities in these sectors was at or near overall availability for Milwaukee while well below availability in comparison metropolitan areas.
- In all six metropolitan areas, employment rates for women were at or above availability levels in the retail, finance, personal services, and professional services sectors at almost all levels of educational attainment.
- Women were most underrepresented in the construction sector, followed by non-durable manufacturing, at all levels of education and in all cities studied.

U.S. CENSUS 1990 5% SAMPLE

MINORITIES 16 Years and Older, Employed and at Work by Industry and Education
 Compared to Minority Availability in Local Labor Markets

	Availability		Manufacturing					Financial	Insurance &	Business	Personal	Professional	
	Level	Construction	Non-Durable	Durable	*TCU	Wholesale	Retail	Institutions	Real Estate	& Repair	Services	Services	Gov't
LESS THAN HIGH SCHOOL													
Cleveland	32%	20%	22%	25%	30%	17%	20%	31%	19%	26%	34%	42%	44%
Columbus	16%	6%	10%	11%	11%	5%	13%	17%	19%	17%	19%	28%	27%
Indianapolis	21%	11%	14%	15%	19%	13%	14%	23%	22%	24%	26%	31%	21%
Kansas City	25%	12%	26%	24%	27%	20%	20%	14%	10%	33%	29%	34%	30%
Milwaukee	32%	19%	33%	26%	27%	21%	19%	50%	24%	34%	20%	38%	23%
Pittsburgh	12%	6%	11%	7%	15%	3%	8%	51%	12%	10%	9%	20%	13%
HIGH SCHOOL or GED													
Cleveland	20%	8%	16%	15%	20%	10%	13%	21%	12%	18%	20%	26%	24%
Columbus	12%	7%	9%	7%	10%	5%	10%	10%	11%	12%	11%	15%	19%
Indianapolis	14%	5%	10%	11%	13%	7%	12%	13%	12%	9%	18%	18%	19%
Kansas City	16%	9%	14%	16%	14%	9%	13%	10%	10%	15%	20%	19%	25%
Milwaukee	13%	6%	11%	11%	11%	9%	10%	13%	13%	11%	14%	18%	14%
Pittsburgh	7%	4%	7%	4%	7%	3%	6%	8%	7%	9%	7%	12%	11%
SOME COLLEGE or ASSOCIATE DEGREE													
Cleveland	21%	11%	13%	12%	28%	9%	15%	26%	13%	16%	20%	25%	30%
Columbus	14%	8%	12%	11%	15%	8%	10%	12%	14%	12%	9%	15%	20%
Indianapolis	15%	7%	13%	14%	21%	8%	13%	9%	16%	15%	20%	15%	24%
Kansas City	15%	8%	13%	12%	17%	8%	13%	13%	14%	11%	18%	15%	26%
Milwaukee	13%	7%	11%	10%	16%	9%	10%	13%	15%	14%	10%	15%	15%
Pittsburgh	9%	6%	10%	4%	11%	3%	6%	13%	8%	10%	10%	10%	14%
COLLEGE GRADUATE													
Cleveland	12%	8%	7%	7%	13%	8%	10%	13%	9%	5%	11%	14%	18%
Columbus	9%	7%	8%	10%	13%	4%	8%	9%	8%	10%	6%	10%	15%
Indianapolis	8%	6%	10%	10%	7%	4%	6%	9%	5%	6%	7%	8%	14%
Kansas City	9%	5%	5%	10%	10%	5%	7%	10%	8%	7%	7%	10%	13%
Milwaukee	7%	3%	7%	4%	14%	4%	6%	7%	4%	6%	4%	7%	12%
Pittsburgh	6%	7%	6%	5%	10%	5%	4%	7%	4%	5%	8%	6%	10%
TOTAL													
Cleveland	23%	11%	14%	15%	23%	10%	15%	21%	12%	16%	22%	22%	26%
Columbus	15%	7%	10%	9%	12%	6%	11%	10%	12%	12%	12%	13%	19%
Indianapolis	16%	7%	11%	12%	16%	7%	12%	11%	12%	13%	19%	14%	19%
Kansas City	17%	9%	13%	15%	15%	9%	14%	11%	11%	15%	19%	15%	22%
Milwaukee	14%	8%	14%	12%	15%	9%	12%	13%	11%	14%	13%	14%	14%
Pittsburgh	10%	5%	8%	4%	10%	3%	6%	10%	7%	9%	9%	9%	12%

*TCU = Transportation, Communications, and Utilities

U.S. CENSUS 1990 5% SAMPLE

FEMALES 16 Years and Older, Employed and at Work by Industry and Education

Compared to Female Availability in Local Labor Markets

	Availability Level	Construction	Manufacturing		*TCU	Wholesale	Retail	Financial Institutions	Insurance & Real Estate	Business & Repair	Personal Services	Professional Services	Gov't
<u>LESS THAN HIGH SCHOOL</u>													
Cleveland	41%	5%	43%	25%	18%	24%	51%	78%	48%	38%	58%	71%	45%
Columbus	41%	6%	35%	27%	18%	26%	52%	68%	57%	35%	60%	71%	31%
Indianapolis	43%	7%	44%	26%	20%	32%	54%	78%	54%	27%	67%	72%	58%
Kansas City	43%	5%	44%	30%	19%	26%	48%	81%	61%	33%	66%	72%	43%
Milwaukee	43%	6%	34%	29%	16%	25%	54%	83%	59%	37%	64%	75%	30%
Pittsburgh	40%	2%	38%	13%	19%	25%	52%	62%	44%	35%	64%	65%	39%
<u>HIGH SCHOOL or GED</u>													
Cleveland	50%	9%	44%	28%	29%	41%	60%	89%	75%	44%	74%	80%	46%
Columbus	50%	12%	40%	28%	30%	36%	55%	86%	79%	38%	69%	80%	55%
Indianapolis	50%	9%	43%	28%	34%	36%	55%	86%	78%	37%	73%	82%	60%
Kansas City	49%	11%	43%	26%	31%	39%	54%	94%	76%	40%	72%	82%	62%
Milwaukee	50%	8%	42%	32%	32%	38%	62%	92%	77%	43%	73%	82%	44%
Pittsburgh	47%	11%	36%	21%	28%	37%	59%	87%	67%	32%	68%	77%	51%
<u>SOME COLLEGE or ASSOCIATE DEGREE</u>													
Cleveland	50%	14%	44%	24%	34%	36%	51%	77%	68%	41%	50%	77%	38%
Columbus	49%	16%	37%	24%	34%	29%	47%	72%	63%	42%	55%	73%	46%
Indianapolis	50%	16%	32%	24%	36%	31%	49%	74%	65%	40%	58%	81%	48%
Kansas City	51%	16%	42%	25%	34%	31%	46%	71%	65%	40%	54%	79%	51%
Milwaukee	48%	11%	37%	23%	36%	28%	55%	74%	65%	43%	62%	80%	36%
Pittsburgh	49%	14%	40%	23%	31%	31%	49%	73%	67%	36%	61%	74%	41%
<u>COLLEGE GRADUATE</u>													
Cleveland	42%	14%	31%	18%	28%	21%	41%	36%	33%	34%	37%	56%	32%
Columbus	42%	16%	32%	16%	25%	19%	44%	51%	33%	35%	41%	55%	36%
Indianapolis	43%	14%	30%	20%	35%	23%	47%	43%	35%	44%	54%	59%	36%
Kansas City	43%	22%	34%	16%	30%	27%	40%	42%	34%	40%	49%	59%	34%
Milwaukee	44%	17%	28%	15%	38%	23%	46%	42%	35%	38%	47%	59%	25%
Pittsburgh	41%	10%	29%	16%	31%	21%	43%	39%	34%	34%	49%	54%	28%
<u>TOTAL</u>													
Cleveland	47%	10%	41%	25%	29%	33%	53%	70%	57%	40%	59%	68%	39%
Columbus	46%	12%	36%	25%	29%	29%	51%	70%	59%	38%	59%	66%	45%
Indianapolis	47%	10%	38%	25%	33%	31%	52%	73%	59%	37%	65%	71%	48%
Kansas City	47%	13%	41%	25%	31%	32%	48%	71%	57%	39%	61%	70%	49%
Milwaukee	47%	10%	37%	26%	33%	30%	56%	71%	59%	41%	65%	70%	34%
Pittsburgh	45%	10%	36%	20%	29%	30%	53%	68%	54%	34%	63%	65%	41%

*TCU = Transportation, Communications, and Utilities

Employed Workers by Geographic Area

The Census Bureau provides breakdowns of the Milwaukee County labor force for six geographical PUMAs (Public Use Microdata Areas): 1) the central city of Milwaukee, which approximates the Community Development Block Grant area (PUMA 2203), 2) the remaining south side of Milwaukee (PUMA 2204), 3) the near northwest side of Milwaukee (PUMA 2202), 4) a combined northwest and east side area of the City (PUMA 2201), 5) the northern suburbs of Milwaukee County, including Wauwatosa (PUMA 2205), and 6) the southern suburbs of Milwaukee County (PUMA 2206). (See map, page 40.) The table below provides data on percentages of employed males and females who were working full-time (more than 34 hours) the week prior to the census count.

- The percentage of employed men working full-time ranged from 75 percent in the central city Milwaukee PUMA, to 93 percent in Waukesha, Ozaukee, and Washington counties.
- Employed women from three of the four Milwaukee areas were more likely to be working full-time than women from the Milwaukee County suburbs or Waukesha, Ozaukee and Washington counties. The percentage of employed women working full-time was 74 percent for the Milwaukee near northwest side, 72 percent for the northwest or east sides, and 71 percent for the south side.
- In three industrial sectors (construction, non-durable manufacturing, and finance/insurance/real estate), suburban/exurban workers showed the highest percentages of men working full-time. In all sectors except finance/insurance/real estate, labor force participants from the central city area showed the lowest percentages of men working full-time.
- Only 51 percent of central city men working in construction were employed full-time in April 1990, compared with 81 percent of city men living on the near northwest side, 83 percent of men living on the northwest or east sides, and 85 percent of men living on the southside. Other industries with less than two-thirds of central city male workers employed full-time included: retail trade, professional services, and personal services.

The employment of full-time and part-time workers by industry varied by residence in the Milwaukee area, as shown on the table below.

- Durable manufacturing industries provided the highest portion of jobs for employed male workers in all geographic areas except the northern Milwaukee County suburbs where the professional services sector provided the greatest employment. Women from all geographical areas showed their highest portion of jobs in professional services industries.
- Central city Milwaukee men showed higher percentages of full-time workers in four industrial sectors (professional services, retail trade, non-durable manufacturing, and business and repair) than workers from other city neighborhoods or from the suburbs. By contrast, the construction industry provided only 6 percent of jobs for central city Milwaukee men, compared to 10 percent of jobs overall for men in the Milwaukee area.

% WORKING FULL TIME BY INDUSTRY

MALES	Manufacturing			TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All
	Construction	Nondurable	Durable										
City, Northwest and East Sides	83%	90%	96%	78%	95%	72%	90%	78%	75%	84%	96%	55%	85%
City, Near Northwest Side	81%	86%	97%	83%	83%	77%	89%	77%	83%	90%	98%	91%	87%
City, Central	51%	91%	96%	78%	93%	59%	81%	78%	62%	61%	88%	0%	75%
City, South Side	85%	93%	97%	91%	96%	87%	77%	94%	81%	88%	100%	87%	92%
Northern Suburbs, Milwaukee County	95%	95%	93%	94%	95%	73%	91%	94%	94%	88%	89%	70%	90%
Southern Suburbs, Milwaukee County	93%	99%	96%	85%	93%	81%	93%	92%	69%	90%	96%	100%	91%
Waukesha, Ozaukee, and Washington Counties	89%	95%	98%	97%	95%	82%	95%	93%	72%	89%	97%	90%	93%

FEMALES	Manufacturing			TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All
	Construction	Nondurable	Durable										
City, Northwest and East Sides	58%	73%	85%	87%	97%	60%	85%	74%	66%	67%	92%	88%	72%
City, Near Northwest Side	83%	96%	92%	78%	72%	51%	89%	36%	71%	75%	89%	70%	74%
City, Central	47%	74%	89%	82%	79%	45%	79%	52%	54%	61%	79%	100%	63%
City, South Side	78%	88%	91%	83%	79%	52%	78%	42%	45%	75%	76%	69%	71%
Northern Suburbs, Milwaukee County	94%	86%	85%	84%	84%	42%	77%	71%	45%	67%	89%	64%	68%
Southern Suburbs, Milwaukee County	76%	82%	91%	87%	82%	47%	81%	58%	56%	66%	90%	30%	69%
Waukesha, Ozaukee, and Washington Counties	62%	86%	88%	79%	73%	49%	74%	67%	43%	62%	85%	61%	66%

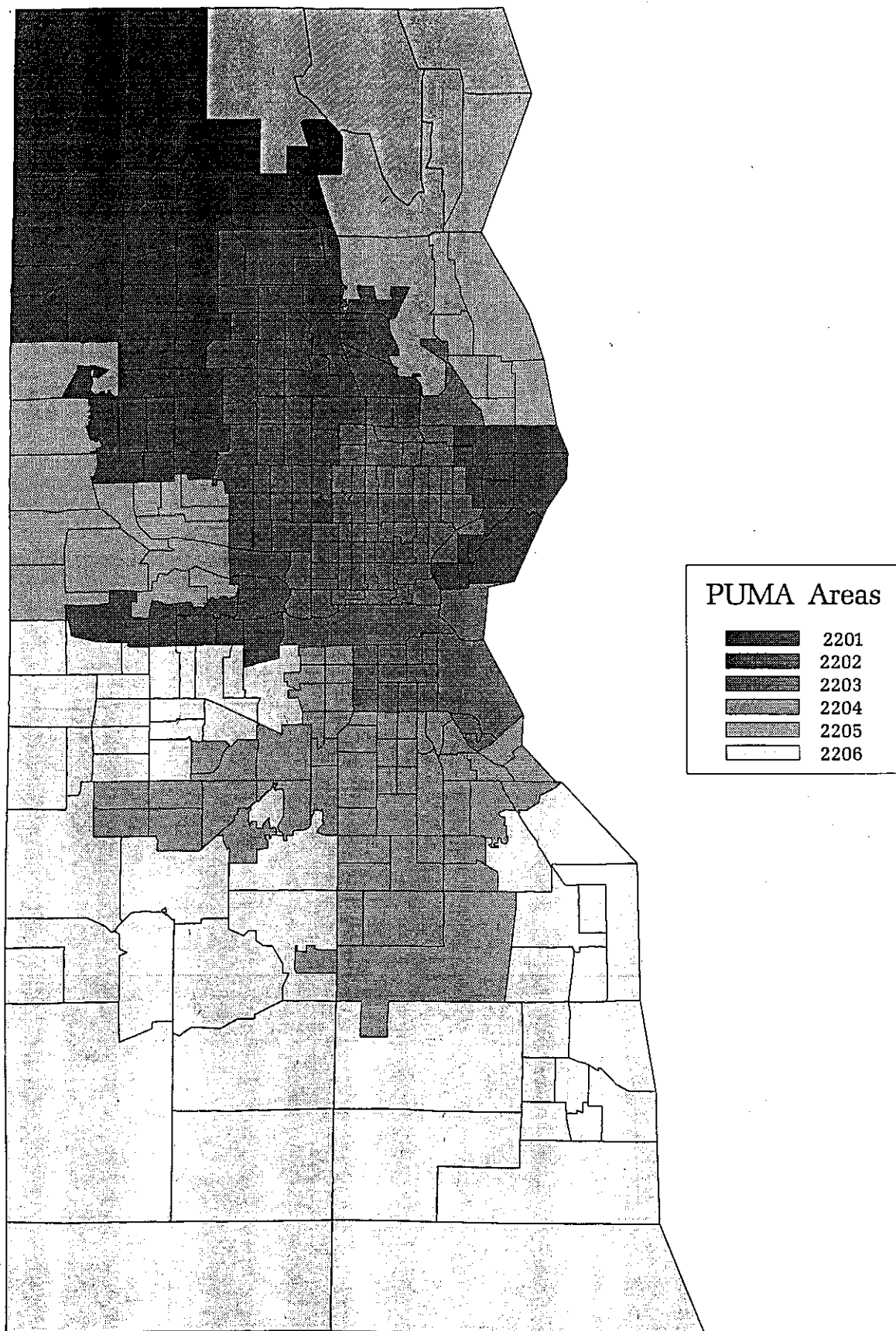
DISTRIBUTION OF FULL AND PART TIME WORKERS BY INDUSTRY

MALES	Manufacturing			TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All	N=
	Construction	Nondurable	Durable											
City, Northwest and East Sides	7%	7%	19%	7%	6%	16%	6%	6%	3%	16%	5%	0%	100%	39314
City, Near Northwest Side	7%	8%	21%	10%	7%	14%	4%	6%	3%	15%	4%	1%	100%	30380
City, Central	6%	10%	20%	7%	5%	17%	3%	8%	4%	18%	2%	1%	100%	21786
City, South Side	7%	9%	27%	10%	5%	12%	4%	5%	3%	10%	7%	1%	100%	35116
Northern Suburbs, Milwaukee County	4%	7%	13%	7%	8%	12%	11%	6%	2%	26%	4%	0%	100%	27397
Southern Suburbs, Milwaukee County	8%	9%	29%	10%	6%	11%	5%	5%	3%	10%	4%	1%	100%	53815
Waukesha, Ozaukee, and Washington Counties	10%	9%	27%	8%	8%	11%	5%	5%	1%	11%	3%	2%	100%	124290

FEMALES	Manufacturing			TCU*	Wholesale	Retail	FIRE*	Business & Repair	Personal Services	Professional Services	Gov't	Agri.*	All	N=
	Construction	Nondurable	Durable											
City, Northwest and East Sides	1%	6%	6%	5%	2%	21%	11%	4%	5%	37%	2%	1%	100%	39161
City, Near Northwest Side	1%	5%	9%	7%	2%	15%	11%	4%	4%	39%	2%	1%	100%	31020
City, Central	1%	7%	8%	2%	3%	18%	9%	6%	6%	39%	2%	0%	100%	19819
City, South Side	1%	5%	10%	5%	2%	19%	11%	5%	5%	33%	4%	0%	100%	33024
Northern Suburbs, Milwaukee County	1%	5%	4%	5%	3%	14%	12%	6%	4%	44%	2%	0%	100%	24531
Southern Suburbs, Milwaukee County	0%	5%	10%	6%	3%	17%	12%	4%	5%	34%	2%	0%	100%	47804
Waukesha, Ozaukee, and Washington Counties	2%	6%	12%	3%	4%	18%	9%	4%	5%	33%	2%	1%	100%	103447

*TCU = Transportation, Communication, and Utilities; FIRE = Finance, Insurance, and Real Estate; Agri. = Agriculture, Forestry, Fishing, and Mining

Milwaukee County PUMA's 1990 Census



Transportation Needs for Central City Workers

Lack of transportation to jobs appears to represent a serious barrier to employment for many city residents, particularly in the central city. Less than half (44 percent) of unemployed workers from Milwaukee's central city (primary CDBG) area had a car in their household. On the City's northwest and east sides and the southside, one out of five unemployed persons did not have a car in their household. Lack of adequate transportation limits these job seekers' access to employment, particularly for jobs in Waukesha, Ozaukee and Washington counties.

Employed persons in Milwaukee's central city showed a strong dependence upon public transportation and carpooling. Only 70 percent of employed workers in Milwaukee's central city had a car in their household, while over 90 percent of employed workers from all other geographical areas of the SMSA had one or more cars in their household.

**Percent of Labor Force Participants With At Least One Car in the Household
Milwaukee SMSA, 1990**

<u>Area of Residence</u>	<u>Unemployed Persons</u>	<u>Employed Persons</u>
City, Central	44%	70%
City, Near Northwest Side	71	92
City, Northwest and East Sides	79	93
City, South Side	81	95
Southern Suburbs, Milwaukee County	94	98
Ozaukee, and Washington Counties	96	99
Northern Suburbs, Milwaukee County	97	98
Waukesha County	99	99

IV. Analysis of EEO-1 Data on Minority and Female Employment

Each year private companies with 100 or more employees are required to file EEO-1 reports with the Equal Employment Opportunity Commission detailing the number of minorities and women employed in their company by nine general occupational groupings. Companies engaged in federal construction projects and financial institutions regardless of size are also required to file the EEO-1 report. Although the companies required to file the EEO-1 data comprised 3 percent of companies in the metropolitan area, they made up 50 percent of the employed population in private companies. For most industrial sectors, companies filing the EEO-1 form employed a majority of the labor force in the metropolitan area, and their hiring practices impact directly on the overall employment picture for women and minorities. For those industrial sectors such as construction with limited numbers of companies filing the EEO-1 forms, assessment of current practice using EEO-1 data is limited and needs to be examined together with 1990 census data.

This analysis uses EEO-1 data to assess employment patterns by type of industry and location of companies within the SMSA of Milwaukee. Hiring patterns by company were compared with the overall availability of women and minorities in the metropolitan labor force for each of the nine general occupational groupings using the 1990 U.S. Census EEO special file. This comparison provides a benchmark for assessing current efforts of employers to incorporate women and minorities into their workforce in proportion to the overall availability in the metropolitan labor force.

Summary

- Private employers with over 100 employees made up 3 percent (1,252) of all companies in the metropolitan area, but accounted for 50 percent of all private employees and about 71 percent of privately employed minorities. Overall, these companies reported that 15 percent of their workforce was comprised of minorities, while it was estimated that the balance of employers with less than 100 employees had an overall minority employment rate of 6 percent.
- One-third of private companies in the metropolitan area filing EEO-1 reports were hiring minorities at or above the overall availability rate of 14.34 percent while one-third of companies employed minorities as fewer than 5 percent of their workforce.
- Companies located in Milwaukee County were more likely to hire at minority availability levels than companies located in the outlying areas of the metropolitan area. Forty-three percent of companies in Milwaukee County reported minority employment at or above availability level, compared to 11 percent of companies located in Waukesha, Ozaukee and Washington counties.
- Companies with a large portion of their workforce in occupations such as operatives, laborers and service workers were more likely to post overall hiring levels at or above availability if hiring practices took advantage of the diversity of the available metropolitan labor force.

- Forty-three percent of companies in the metropolitan area reporting EEO-1 data employed women at or above the availability standard for officials and managers while 17 percent of companies employed women at less than 1 percent of their officials and managers. Women were most successful in professional services and finance sectors where over 80 percent of companies employed women at or above the standard. Durable manufacturing industries showed the lowest percentages of companies employing women as officials and managers, with only 9 percent of companies at or above the standard.

Methodology Used to Establish Benchmarks for Assessing Employment Patterns

An essential component in determining the percent of minorities available for employment is the definition of the local labor market and the reasonable recruitment area used when hiring. Some positions, including professionals and managers, may require a national or regional search. However, most positions will be drawn from the immediate area. For this analysis, the four-county metropolitan area was used as the basis for determining the available labor force and for the calculation of the percent of minorities in the labor force. Due to the wide range of possible recruitment areas for the variety of positions contained within each category, this analysis assumed that most jobs could be filled from the metropolitan area.

Employees reporting EEO-1 data were asked to summarize their employment patterns by nine broad occupational groupings detailing employees by race and gender in each group. U.S. Census EEO data for 1990 was used to establish the availability of women and minorities in the metropolitan area for each grouping, and as a result provides a rough measure of utilization. (Definitions for each of the EEOC-required occupational groupings are included in Appendix A. These definitions were used to collapse the 512 census occupations into the nine groupings used in this study to determine availability levels for the metropolitan labor market.)

The availability standard against which companies were measured used the "80 percent or four-fifths rule" which assumes that the representation of minorities will normally fall within 20 percent of the availability level in any occupational grouping. For example, the 1990 U.S. Census listed 101,401 persons in the metropolitan area workforce in the "operative" group, with 23,447, or 23.12 percent, of these workers identified as minorities. The percent of available minority operatives in the metropolitan area was thus calculated at 23.12 percent and companies hiring operatives were expected to fall no lower than 80 percent of this level (i.e. 18.5 percent). If the level of hiring was below this level, the company was considered to be under-representing minorities in its workforce of operatives. For example, if Company "X" reported that it employed 20 minorities out of a total of 100 operatives (i.e., 20 percent), Company "X" met the 80 percent standard of 18.5 percent for the category.

If a company fell below the 80 percent standard in an occupational grouping, the job area was considered to be under-represented. The 80 percent rule was applied to determine those companies within at least 20 percent of the goal for each occupational group as follows:

**Availability of Minorities and Women in the Milwaukee Labor Force and
80 Percent Standard by Occupational Group**

<u>Occupational Group</u>	<u>MINORITIES:</u>		<u>WOMEN:</u>	
	<u>Percent Available</u>	<u>80% Minimum Standard</u>	<u>Percent Available</u>	<u>80% Minimum Standard</u>
Officials and Managers	6.38	5.10	36.71	29.37
Professionals	8.77	7.02	53.78	43.02
Technicians	9.10	7.28	50.43	40.34
Sales	9.53	7.62	49.61	39.69
Office/Clerical	13.00	10.40	78.70	62.96
Crafts	9.26	7.41	8.51	6.81
Operatives	23.12	18.50	28.92	23.14
Laborers	22.35	17.91	18.23	14.58
Service Workers	24.03	19.22	59.97	47.98

Analysis of Employers' Minority Employment Levels

Patterns of employment and hiring for companies reporting data to the EEOC are much different than for those companies which are smaller and not required to report. A comparison of companies' EEOC reporting data with DILHR and census data showed the impact of larger companies by industrial sector. According to the DILHR file of private employers in the metropolitan area, 1,252 or 3 percent of all companies had 100 or more employees, yet these companies accounted for 50 percent of all private sector employees. Comparing private sector employees from the 1990 census with the number listed in the EEOC reports for larger employers, it was estimated that reporting companies accounted for 71 percent of privately employed minorities.

Clearly, the hiring practices of the 1,252 employers in the metropolitan area with over 100 employees had a significant impact on the overall employment of minorities. The EEOC reporting companies showed that 15 percent of their workforce was comprised of minorities, while it was estimated that the balance of companies with less than 100 employees and not required to report had an overall minority employment rate of 6 percent.

**Impact of Larger Companies on Local Labor Market
(DILHR, March 1991)**

<u>Industrial Sector</u>	<u>Total Companies in Milw. SMSA</u>	<u>Percent of Companies With More Than 100 Employees</u>	<u>Total Persons Employed in Milw. SMSA</u>	<u>Persons Employed in Companies With Over 100 Employees</u>	<u>Number of Companies Filing 1991 EEO-1 Reports</u>
Agri., Forest., Fish., Min.	494	0%	3,023	0%	79
Construction	3,157	1	23,665	16	7
Manufacturing	3,169	11	168,726	66	394
Transp., Commun., Utilities	1,256	5	34,805	39	99
Wholesale Trade	37,384	1	43,829	18	66
Retail Trade	7,000	3	124,438	25	266
Finance, Insur., R. Estate	3,107	2	51,496	52	121
Services	<u>11,716</u>	3	<u>188,779</u>	52	<u>292</u>
Total Private	33,682	3%	638,776	50%	1,252

Variations in employment patterns by type of industry were also evident. In the manufacturing sector, 11 percent of employers filed EEO-1 reports. These companies employed an estimated 66 percent of all privately employed workers and 77 percent of minorities working in manufacturing.

Minority Employment Record of EEO-1 Companies

<u>Industrial Sectors</u>	<u>Persons Employed in All Private Companies Filing 1991 EEO-1 Reports:</u>		<u>All Persons Employed in Private Companies (April 1990 Census*):</u>		<u>Minorities in EEO-1 Companies as Percent of All Minorities Privately Employed</u>
	<u>Total</u>	<u>Minorities</u>	<u>Total</u>	<u>Minorities</u>	
Agriculture, Forestry, Fishing, Mining	698	102	4,115	164	62%
Construction	3,946	308	24,739	1,712	18
Manufacturing	120,237	16,050	169,310	20,894	77
Transp, Commun, Utilities	22,455	3,356	34,324	4,498	75
Wholesale Trade	8,771	702	33,258	3,030	23
Retail Trade	35,887	5,042	103,037	12,161	41
Finance	14,123	1,812	14,415	1,709	106
Insurance and Real Estate	14,078	1,982	32,614	3,929	50
Services	<u>85,700</u>	<u>15,614</u>	<u>107,678</u>	<u>14,978</u>	104
Total	305,895	44,968	523,490	63,071	71%

* Persons at work as employees of private-for-profit firms in the Metropolitan Milwaukee Area: 1990 U.S. Census 5% Sample PUMS.

Percentages "over 100 percent" are the result of increases in employment from April 1990 when the census was taken to March 1991 when the EEO-1 reports were prepared.

In contrast, in the construction area only 17 of 3,157 companies were required to file the EEO-1 report and, as a result, EEO-1 data do not provide useful indicators of performance by the construction sector. Construction companies reporting to the EEOC made up an estimated 16 percent of all employees and 18 percent of all minorities employed in this sector. Similarly, companies in the wholesale trade sector reporting to EEOC made up only 18 percent of the employees in the sector and 23 percent of minorities employed.

All financial institutions were required to file the EEO-1 form. As can be seen in the comparison of 1991 EEO-1 reports with the 1990 census data, these companies' reported employment was consistent with labor force increases which would be expected after a one year period. Transportation, communications and other utilities companies filing the EEO-1 made up 39 percent of employees and 75 percent of all minority employment. For the retail trade sector, 3 percent of companies in this sector made up 25 percent of total retail employment and an estimated 41 percent of minority employment.

In the service sector, comparisons between DILHR and EEOC data were less useful because not-for-profit corporations are included in the DILHR service sector but are not included in EEO-1 reports. Comparisons with the 1990 census population where analysis can be limited to private sector employees, showed that the EEO-1 companies made up 80 percent of employees and accounted for virtually all minorities employed. (Percentages "over 100 percent" were the result of increases in employment from April 1990 when the census was taken to March 1991 when the EEO-1 reports were prepared.)

Company-Level Minority Employment Patterns

Overall figures suggested that large private employers filing EEO-1 data were responsible for a disproportionately large share of minority employment among for-profit companies. However, analysis of company-level performance showed a wide variation in minority employment rates by occupation, industry and location of the worksite. About one-third (32 percent) of metropolitan companies reporting EEO-1 worksite information were at or above the level of availability for minorities (14.34%) in the metropolitan labor force, and about a third of the companies (35 percent) had minority employment rates that were less than 5 percent minority, well below the availability level.

Percent of Companies Meeting Minority Availability Levels and Percent of Companies With Less than 5 Percent Minority Employment

<u>Industrial Sector</u>	<u>Percent of Companies at or Above Availability Levels:</u>			<u>Percent of Companies With Less Than 5% Minority Employment:</u>			<u>Companies Reporting (N=)</u>
	<u>Milwaukee</u>	<u>WOW</u>	<u>Total</u>	<u>Milwaukee</u>	<u>WOW</u>	<u>Total</u>	
Agriculture, Forestry, Fishing, Mining	50%	20%	29%	0%	60%	43%	7
Construction	11	0	6	33	38	35	17
Non-Durable Manufacturing	50	10	36	19	51	31	107
Durable Manufacturing	42	16	30	19	51	34	287
Transp. Commun., Utilities	43	0	30	16	52	26	99
Wholesale Trade	30	5	15	30	56	45	66
Retail Trade	46	9	36	31	63	40	266
Finance	26	7	21	28	67	38	58
Insurance and Real Estate	27	6	21	31	44	35	68
Business and Personal Services	43	22	38	25	41	29	108
Professional Services	52	6	43	26	79	36	174
TOTAL	43%	11%	32%	25%	55%	35%	
Total Number	357	45	402	205	235	440	1,252

WOW = Waukesha, Ozaukee and Washington counties.

Employers with worksites in Milwaukee County showed a much higher share (43 percent) at or above minority availability levels than employers in Waukesha, Ozaukee and Washington (WOW) counties. Non-durable manufacturing and professional services companies in Milwaukee County showed the strongest records with 50 percent or more of companies above 14 percent minority. In WOW counties, 11 percent of employers were at or above availability levels -- led by business and personal services (22 percent) and durable manufacturing (16 percent). Very few companies in the agricultural, construction or wholesale trade sectors were required to report EEO data and, as a result, EEO-1 analysis of companies in these sectors provides a very limited view of the overall performance of companies in these sectors.

While one-third of employers throughout the four-county metropolitan area were able to employ minorities at or above availability levels, many employers, particularly in WOW counties, had less than 5 percent of minorities in their workforce. Overall, 8 percent of metropolitan companies reporting had no minorities in their workforce and 10 percent had less than 1 percent minorities.

Officials and Managers

Overall, 27 percent of companies employed minorities as officials and managers at or near availability levels while 61 percent had less than 1 percent of officials and managers listed as minorities. The transportation, communications and utilities (TCU) sector led with 37 percent minority employment, followed by professional services and non-durable manufacturing. Financial institutions posted the lowest percentages of companies at minority availability levels with 19 percent of companies meeting availability standards for officials and managers. The retail sector had the highest percent of companies with less than 1 percent of minorities employed. At Milwaukee County worksites, 32 percent were at or near availability while 56 percent of companies had less than 1 percent minorities. In WOW counties, 19 percent of companies were at or near availability levels and 71 percent had less than 1 percent minorities.

Professionals

In 1991, 22 percent of reporting companies were at or near minority availability levels for professionals while 58 percent had less than 1 percent minorities. The professional service industrial sector accounted for over half of all employees as professionals, most of which were concentrated in Milwaukee County, where 35 percent of companies were at or near the availability level. Insurance, real estate, the TCU sector, and non-durable manufacturing posted the next highest levels of minority employment while durable manufacturing, retail and personal and business sectors were lowest.

Technicians

About one-third (31 percent) of companies were at or near availability levels for technicians while 54 percent had less than 1 percent minority. The professional services and durable manufacturing sectors had the highest number of technicians listed and showed 44 percent and 26 percent of companies at availability levels respectively.

Sales Workers

Sales was the occupational group with the lowest percent of companies employing minorities at or near availability levels with 20 percent of companies making availability levels and 59 percent of companies showing less than 1 percent minorities employed. More than half of all employees in this group were located in the retail sector where 35 percent of worksites were at or near availability levels and only 24 percent of companies had less than 1 percent minorities. Durable and non-durable manufacturing had the next highest number of sales workers but had only 11 and 13 percent of companies respectively, employing minorities at the minority availability level. Eighty percent of durable manufacturing companies and 65 percent of non-durable manufacturing companies had less than 1 percent minorities.

Office and Clerical

Overall, 32 percent of companies had minority employment levels for office and clerical workers at or near availability levels while 46 percent had less than 1 percent minorities. Finance, insurance and real estate sectors with 50 percent and TCU with 48 percent had the highest percent of companies with employment at or near availability levels. Retail and durable and non-durable manufacturing sectors were lowest with levels of 22, 23 and 28 percent respectively.

Craft Workers

One-third (33 percent) of the companies employed minorities at or near availability levels for craft workers while 48 percent had less than 1 percent. Over half of all craft workers were concentrated in durable manufacturing which had the highest percent of companies at availability levels with 44 percent and only 27 percent with less than 1 percent minority.

Operatives

The overall percent of companies employing minorities as operatives at or near availability levels was 35 percent while 30 percent of companies showed less than 1 percent minority employment. More than half of all operatives were concentrated in durable manufacturing which had 41 percent of companies at or above minority availability levels followed by non-durable manufacturing with 43 percent at or above the standard.

Laborers

The highest overall level of companies with minority employment at or above the standard was for laborers with 43 percent while 37 percent of companies had minority employment at less than 1 percent. The non-durable sector led with 64 percent companies at or above the standard followed by durable manufacturing with 52 percent and TCU with 46 percent. In WOW counties, employers were most successful in employing minorities as laborers with 28 percent of companies at or above the standard in this sector.

Service Workers

The second highest level of minority employment by occupational group was as service workers where 42 percent of all companies were able to employ minorities at the availability standard. The majority of jobs were concentrated in the professional service sector (56 percent of companies at or above availability) and the business and personal service sector (61 percent at or above availability).

Minority Employment by Occupation in Private Industry - TOTAL METRO AREA
 EEOC Employer Information Reports

Occupation Group:	Manufacturing		TCU*	Retail	Financial Institutions	Insurance and Real Estate	Personal and Business Services	Professional Services	Total
	Non-Durable	Durable							
OFFICIALS & MANAGERS									
Number of Companies	105	285	98	264	58	63	107	173	1242
With Less than 1% Minorities	50%	56%	57%	73%	60%	67%	63%	53%	61%
At or Above Minority Availability Level	33%	25%	37%	24%	19%	24%	26%	34%	27%
Number of Employees	3738	9864	3071	3067	2726	1681	2172	4058	31847
% Minorities Employed	5%	4%	7%	5%	3%	4%	4%	5%	4%
PROFESSIONALS									
Number of Companies	88	252	49	61	43	50	66	171	830
With Less than 1% Minorities	61%	66%	57%	82%	53%	44%	70%	34%	58%
At or Above Minority Availability Level	27%	15%	31%	15%	23%	30%	17%	30%	22%
Number of Employees	2415	8778	1573	344	1744	2972	2312	21275	42014
% Minorities Employed	9%	4%	8%	6%	5%	7%	6%	5%	5%
TECHNICIANS									
Number of Companies	76	243	38	45	13	38	58	140	696
With Less than 1% Minorities	55%	57%	58%	80%	38%	55%	52%	38%	54%
At or Above Minority Availability Level	33%	26%	29%	16%	46%	39%	33%	44%	31%
Number of Employees	1058	6214	1129	295	513	1956	1498	7864	21424
% Minorities Employed	10%	6%	7%	6%	8%	13%	10%	11%	9%
SALES WORKERS									
Number of Companies	80	187	45	185	20	34	70	24	714
With Less than 1% Minorities	65%	80%	62%	24%	75%	74%	77%	92%	59%
At or Above Minority Availability Level	13%	11%	24%	35%	15%	9%	14%	8%	20%
Number of Employees	3866	4139	1004	16891	342	836	914	99	30507
% Minorities Employed	10%	5%	19%	11%	5%	3%	7%	10%	9%
OFFICE & CLERICAL									
Number of Companies	105	284	95	182	56	62	103	173	1144
With Less than 1% Minorities	48%	50%	39%	68%	23%	23%	44%	34%	46%
At or Above Minority Availability Level	28%	23%	48%	22%	50%	50%	30%	40%	32%
Number of Employees	3670	7797	4620	3289	8251	6080	3534	11457	50382
% Minorities Employed	12%	8%	20%	11%	18%	21%	12%	13%	14%
CRAFT WORKERS									
Number of Companies	89	244	75	102	6	9	52	60	688
With Less than 1% Minorities	44%	27%	59%	76%	67%	67%	58%	65%	48%
At or Above Minority Availability Level	31%	44%	28%	20%	0%	33%	29%	33%	33%
Number of Employees	4646	16460	2678	684	229	76	851	603	28733
% Minorities Employed	9%	10%	9%	9%	6%	17%	9%	13%	10%
OPERATIVES									
Number of Companies	96	244	73	88	5	14	58	71	713
With Less than 1% Minorities	20%	16%	16%	58%	80%	64%	33%	56%	30%
At or Above Minority Availability Level	43%	41%	30%	33%	20%	29%	36%	28%	35%
Number of Employees	9405	27182	5918	1623	14	63	2680	861	49834
% Minorities Employed	19%	22%	21%	19%	7%	11%	23%	24%	21%
LABORERS									
Number of Companies	67	180	35	120	3	7	42	35	541
With Less than 1% Minorities	19%	28%	37%	46%	100%	43%	40%	57%	37%
At or Above Minority Availability Level	64%	52%	46%	28%	0%	43%	45%	29%	43%
Number of Employees	3764	5769	2178	3633	7	23	1267	558	18777
% Minorities Employed	26%	26%	13%	17%	0%	17%	43%	44%	24%
SERVICE WORKERS									
Number of Companies	41	117	30	149	25	14	44	129	565
With Less than 1% Minorities	51%	57%	50%	32%	72%	36%	23%	19%	39%
At or Above Minority Availability Level	37%	34%	40%	41%	12%	50%	61%	56%	42%
Number of Employees	606	866	284	6061	297	391	6145	17552	32377
% Minorities Employed	28%	22%	24%	28%	18%	31%	40%	40%	36%

*TCU = Transportation, Communications, and Utilities

Employment of Women by Occupational Sector

Unlike minority employment, which varied substantially between Milwaukee County and the WOW counties, the metropolitan area showed the same rates for employment of women in both Milwaukee and the WOW counties, with 53 percent employers hiring women at or above the overall availability level of 46.97 percent. Only 1 percent of companies had a workforce with less than 1 percent female. Women tended to be most heavily concentrated at or above availability in white collar sectors of finance, insurance, real estate, retail sales and professional services, and most under-represented in durable manufacturing. The occupational concentration of women in traditionally female jobs was evidenced in the employment patterns of companies across sectors by occupation. Clerical and administrative support accounted for one-third of all jobs held by women, followed by the professional category where the professional service sector dominated by health showed the next highest concentration of jobs. Service occupations were the third highest job cluster with two-thirds of jobs in the professional service sector. Sales jobs were fourth with 72 percent of jobs in the retail sector.

Officials and Managers

In 1991, companies reporting EEO-1 data in the metropolitan area showed 43 percent employing women at or above the standard while 17 percent of companies employing women at less than 1 percent as officials and managers. Companies showed highest percentages employing women officials and managers in professional services and the finance sector where over 80 percent of companies employed women at or above the standard. Durable manufacturing showed the fewest percentages of companies employing women as officials and managers, with only 9 percent at or above the standard.

Professionals

Women were employed at the minimum availability standard in 44 percent of metropolitan companies, while in 18 percent of companies less than 1 percent of professionals were made up of women. Professional services posted the highest percents of companies hiring women at the standard with 82 percent, followed by finance (77 percent) and insurance and real estate (74 percent). Performance at the availability standard was poorest in durable manufacturing (12 percent).

Technical

The overall levels of female employment at or above the standard for technicians was 39 percent in the technical job group, while 23 percent of companies employing less than 1 percent in this group. Professional services and insurance and real estate had the highest percent of companies at or above the standard with 82 percent, followed by insurance and retail sectors. Levels were lowest in the durable manufacturing sector (11 percent) and transportation, communications and utilities (16 percent).

Sales

Fifty-three percent of companies hired women at or above the availability standard in sales occupations while 22 percent of companies listed less than 1 percent of their workforce as female. Finance led with 92 percent companies at or above standard followed by professional services (88 percent). Durable manufacturing (25 percent) and non-durable manufacturing (31 percent) were lowest.

Office/Clerical

The employment of women in office and clerical reflected their overall availability in the metropolitan labor force with 93 percent of companies hiring at or above levels.

Craft Workers

Thirty-four percent of companies which employed women in craft occupations did so at or above availability levels. Durable manufacturing led with 46 percent of companies at or above the standard, while financial institutions and retail trade industries showed the lowest percents reaching the standard. In 56 percent of companies women comprised less than 1 percent of craft workers.

Operatives

Employment rates for companies were at or above standard in 39 percent of companies for this occupational group. Among the sectors employing large numbers of operatives, retail and business services led in minority employment with 55 percent and 45 percent respectively.

Laborers

Fifty-one percent of companies hired women at or above availability levels while 39 percent listed women at less than 1 percent of employed laborers. Retail trade with 70 percent and non-durable manufacturing with 64 percent had the highest percent of companies at the availability level.

Service Workers

Service workers were concentrated in the professional services sector which accounted for two-thirds of all employees and in which 93 percent of employers hired women service workers at or above availability levels followed by retail with 91 percent and business services with 61 percent.

Female Employment by Occupation in Private Industry - MILWAUKEE METRO AREA
BEOC Employer Information Reports

Occupation Group:	Manufacturing		TCU*	Retail	Financial	Insurance and	Personal and	Professional	Total
	Non-Durable	Durable			Institutions	Real Estate	Business Services	Services	
OFFICIALS & MANAGERS									
Number of Companies	105	285	98	264	58	63	107	173	1242
With Less than 1% Females	14%	24%	33%	14%	3%	8%	17%	9%	17%
At or Above Female Availability Level	23%	9%	39%	60%	83%	63%	44%	82%	43%
Number of Employees	3738	9864	3071	3067	2726	1681	2172	4058	31847
% Females Employed	17%	11%	30%	43%	40%	37%	27%	62%	28%
PROFESSIONALS									
Number of Companies	88	252	49	61	43	50	66	171	830
With Less than 1% Females	23%	27%	35%	25%	14%	2%	15%	0%	18%
At or Above Female Availability Level	32%	12%	31%	57%	77%	74%	47%	82%	44%
Number of Employees	2415	8778	1573	344	1744	2972	2312	21275	42014
% Females Employed	38%	16%	31%	51%	59%	61%	37%	82%	58%
TECHNICIANS									
Number of Companies	76	243	38	45	13	38	58	140	696
With Less than 1% Females	17%	29%	34%	24%	8%	11%	36%	7%	23%
At or Above Female Availability Level	32%	11%	16%	67%	69%	82%	31%	82%	39%
Number of Employees	1058	6214	1129	295	513	1956	1498	7864	21424
% Females Employed	37%	15%	25%	36%	39%	83%	43%	81%	50%
SALES WORKERS									
Number of Companies	80	187	45	185	20	34	70	24	714
With Less than 1% Females	26%	43%	20%	2%	30%	12%	27%	13%	22%
At or Above Female Availability Level	31%	25%	58%	92%	35%	32%	53%	88%	53%
Number of Employees	3866	4139	1004	16891	342	836	914	99	30507
% Females Employed	27%	26%	66%	75%	37%	22%	54%	63%	57%
OFFICE & CLERICAL									
Number of Companies	105	284	95	182	56	62	103	173	1144
With Less than 1% Females	1%	2%	1%	0%	0%	0%	1%	1%	1%
At or Above Female Availability Level	95%	89%	86%	96%	100%	100%	84%	97%	93%
Number of Employees	3670	7797	4620	3289	8251	6080	3534	11457	50382
% Females Employed	83%	82%	85%	90%	86%	91%	81%	94%	87%
CRAFT WORKERS									
Number of Companies	89	244	75	102	6	9	52	60	688
With Less than 1% Females	46%	53%	67%	50%	50%	56%	71%	52%	56%
At or Above Female Availability Level	33%	46%	28%	20%	0%	33%	29%	33%	34%
Number of Employees	4646	16460	2678	684	229	76	851	603	28733
% Females Employed	10%	8%	5%	30%	74%	12%	10%	20%	9%
OPERATIVES									
Number of Companies	96	244	73	88	5	14	58	71	713
With Less than 1% Females	25%	29%	37%	39%	40%	50%	38%	52%	36%
At or Above Female Availability Level	36%	39%	34%	55%	60%	43%	45%	37%	39%
Number of Employees	9405	27182	5918	1623	14	63	2680	861	49834
% Females Employed	21%	35%	17%	58%	29%	27%	34%	44%	30%
LABORERS									
Number of Companies	67	180	35	120	3	7	42	35	541
With Less than 1% Females	25%	44%	60%	18%	100%	71%	45%	54%	39%
At or Above Female Availability Level	64%	44%	34%	70%	0%	14%	40%	43%	51%
Number of Employees	3764	5769	2178	3633	7	23	1267	558	18777
% Females Employed	37%	41%	17%	44%	0%	17%	37%	51%	36%
SERVICE WORKERS									
Number of Companies	41	117	30	149	25	14	44	129	565
With Less than 1% Females	34%	62%	47%	9%	44%	29%	27%	4%	27%
At or Above Female Availability Level	41%	18%	40%	70%	32%	36%	41%	91%	54%
Number of Employees	606	866	284	6061	297	391	6145	17552	32377
% Females Employed	47%	21%	36%	56%	32%	54%	40%	81%	65%

*TCU = Transportation, Communications, and Utilities

APPENDIX A

Data Sources

I. 1990 U.S. Census/EEO Supplemental Tabulations

In 1993, the U.S. Census generated computer files for use by affirmative action planners detailing sample data from the 1990 census. Tables are generated which detail 512 occupation categories by gender, race, level of education, earnings, and industrial sector for the U.S., states, counties, metropolitan areas and places of 50,000 or more. Local geographic analysis includes data on the City of Milwaukee, the County of Milwaukee, as well as the four-county PMSA. The files include individuals who are employed, unemployed persons with recent labor market experience, and persons 16 years old and over with no recent work experience but seeking work and currently in the labor force. This classification allows an analysis of the available pool of workers in each occupation regardless of employment status. The industrial sectors are summarized in the following groupings.

- Agriculture, forestry, and fisheries
- Mining
- Construction
- Manufacturing, nondurable goods
- Manufacturing, durable goods
- Transportation
- Communications and other public utilities
- Wholesale trade
- Retail trade
- Finance
- Insurance and real estate
- Business and repair services
- Personal services
- Professional and related services
- Public administration (government)

II. Public Use Microdata Sample (PUMS) Files of the 1990 U.S. Census

Public Use Microdata Sample files for 1990 census which contain data from samples of long-form housing-unit records ("microdata") for large geographic areas were used to analyze characteristics of the Milwaukee labor force and employment patterns for the metropolitan area. Each sample housing-unit record includes essentially all the 1990 census data collected about each person in a sample household and the characteristics of the housing unit. Information that could be used to identify an individual or a housing unit is not included in the file.

A file presenting a five-percent sample of housing units in which each household record includes codes which detail residence and place of work by Public Use Microdata Area (PUMA) -- identified areas with a population of at least 100,000 and boundaries that do not cross state lines. The five percent sample of the 1990 census for Milwaukee County includes 4 groupings of census tracts within the City of Milwaukee, and two groupings in the balance of the county. The city areas include the east and far northwest sides (PUMA 2201), inner-city north and south (PUMA 2203), the near northwest side (PUMA 2202), and the far south side (PUMA 2204). County suburbs are grouped into the south suburbs (PUMA 2206) and north suburbs (PUMA 2205). (See map, page 40.) Data are available as well for Milwaukee County as a whole and the PMSA. These files are constructed from the population which completed the long form of the U.S. Census. While tract data can be subject to significant sampling error, there is sufficient data to detail employment by industry, occupation, age, race, gender and level of education for residents of the city, neighborhoods within the city, the county and metropolitan area. Individual records on the PUMS file include: industry code, occupation, education, class of worker, weeks and hours worked, income by type and a range of demographic characteristics including most questions asked on the long form of the 1990 census.

III. Equal Employment Opportunity Commission EEO-1 File

The Equal Employment Opportunity Commission (EEOC) requires that employers submit annual data on employment patterns for purposes of affirmative action planning by companies subject to Executive Order 11246 or Title VII of the Civil Rights Act. Private employers required to file the EEO-1 report generally include all private companies with more than 100 employees. Detailed information on race/ethnic group, gender, and occupation are detailed for each corporation. Individual EEO-1 reports are then aggregated by the standard industrial classification (up to 3 digits detail of the SIC) by county, PMSA, state and for the nation. Companies report employment status using any pay period in the first quarter of the calendar year.

Because the companies required to report are limited, many employment sectors are under-represented. Minority businesses and in particular recent minority entrepreneurial efforts may not be reflected in the EEO-1 file as the size of the companies may be too small for reporting purposes. (The financial sector includes a high percentage of responses due to the requirement that all institutions which are federal depositories and issuers of U.S. Savings Bonds must submit an EEO-1.)

The EEOC defines the its job categories as follows:

- 1. Officials and managers** - Occupations requiring administrative and managerial personnel who set broad policies, exercise overall responsibility for execution of these policies, and direct individual departments or special phases of a firm's operations. This category includes: officials, executives, middle management, plant managers, department

managers, and superintendents, salaried supervisors who are members of management, purchasing agents and buyers, railroad conductors and yard masters, ship captains, mates and other officers, farm operators and managers, and kindred workers.

2. Professionals - Occupations requiring either college graduation or experience of such kind and amount as to provide a comparable background. This category includes: accountants and auditors, airplane pilots and navigators, architects, artists, chemists, designers, dietitians, editors, engineers, lawyers, librarians, mathematicians, natural scientists, registered professional nurses, personnel and labor relations specialists, physical scientists, physicians, social scientists, teachers, surveyors and kindred workers.

3. Technicians - Occupations requiring a combination of basic scientific knowledge and manual skill which can be obtained through two years of post high school education, such as is offered in many technical institutes and junior colleges, or through equivalent on-the-job training. This category includes: computer programmers, drafters, engineering aides, junior engineers, mathematical aides, licensed, practical or vocational nurses, photographers, radio operators, scientific assistants, technical illustrators, technicians (medical, dental, electronic, physical science), and kindred workers.

4. Sales - Occupations engaging wholly or primarily in direct selling. This category includes: advertising agents and salesworkers, insurance agents and brokers, real estate agents and brokers, stock and bond salesworkers, demonstrators, salesworkers and sales clerks, grocery clerks, and cashiers/checkers, and kindred workers.

5. Office and clerical - Includes all clerical-type work regardless of level of difficulty, where the activities are predominantly nonmanual though some manual work not directly involved with altering or transporting the products is included. This category includes: bookkeepers, collectors (bills and accounts), messengers and office helpers, office machine operators (including computer, shipping and receiving clerks, stenographers, typists and secretaries, telegraph and telephone operators, legal assistants, and kindred workers.

6. Craft workers (skilled) - Manual workers of relatively high skill level having a thorough and comprehensive knowledge of the processes involved in their work, and who exercise considerable independent judgment and usually receive an extensive period of training. This category includes: the building trades, hourly paid supervisors and lead operators who are not members of management, mechanics and repairers, skilled machining occupations, compositors and typesetters, electricians, engravers, painters (construction and maintenance), motion picture projectionists, pattern and model makers, stationary engineers, tailors and tailoresses, arts occupations, handpainters, coaters, bakers, decorating occupations, and kindred workers.

7. Operatives (semiskilled) - Workers who operate machine or processing equipment or perform other factory-type duties of intermediate skill level which can be mastered in a few weeks and require only limited training. This category includes: apprentices (auto mechanics, plumbers, bricklayers, carpenters, electricians, machinists, mechanics, building trades, metalworking trades, printing trades, etc.), operatives, attendants (auto service and parking), blasters, chauffeurs, delivery workers, sewers and stitchers, dryers, furnace workers, heaters, laundry and dry cleaning operatives, milliners, mine operatives and laborers, motor operators, oilers and greasers (except auto), painters (manufactured articles), photographic process workers, truck and tractor drivers, knitting, looping, taping and weaving machine operators, welders and flamecutters, electrical and electronic equipment assemblers, butchers, and meatcutters, inspectors, testers and grades, handpackers and packagers, and kindred workers.

8. Laborers (unskilled) - Workers in manual occupations which generally require no special training who perform elementary duties that may be learned in a few days and require the application of little or no independent judgment. This category includes: garage laborers, car washers and greasers, groundskeepers and gardeners, farmworkers, stevedores, wood choppers, laborers performing lifting, digging, mixing, loading and pulling operations, and kindred workers.

9. Service workers - Workers in both protective and non-protective service occupations. This category includes: attendants (hospital and other institutions, professional and personal service, including nurses aides, and orderlies), barbers, charworkers and cleaners, cooks, counter and fountain workers, elevator operators, firefighters and fire protection, guards, doorkeepers, stewards, janitors, police officers and detectives, porters, waiters and waitresses, amusement and recreation facilities attendants, guides, ushers, public transportation attendants, and kindred workers.