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Minority and Female Employment in the Omaha MSA Construction Industry: Status, Trends and Outlook

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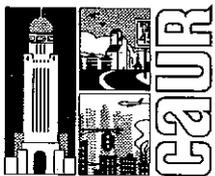
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Minority and Female
Employment in the
Omaha MSA
Construction Industry:
Status, Trends, and Outlook

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Center for Applied Urban Research
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EXECUTIVE SUMMARY

The following are the major findings of this study:

- Construction industry employment in the Omaha MSA grew 22.1 percent from 1980 to 1987.
- Most construction jobs in the Omaha MSA are in the trades (63.6 percent).
- Minorities comprised 8.5 percent of the Omaha MSA labor force in 1980.
- Minority employment in construction industry occupations is roughly equivalent to the minority proportion of the Omaha MSA labor force, while females are underrepresented in construction jobs.
- Minorities are more likely to work as construction laborers/helpers than the total construction industry labor force.
- A total of 896 minorities were employed in construction industry occupations in 1980; in 1987, it is estimated that the number increased to 1,192--representing an increased minority share of the area's construction industry employment.
- The number of women working in construction industry occupations in 1987 was estimated to total 325; this represents a declining share of total construction industry employment, although the number of women employed in the construction industry is up slightly from 1980.
- While total, female, and minority job seekers in the construction industry declined from 1980 to 1987, the female and minority proportions of active job seekers increased from 1980 to 1987.
- The total number of minority individuals available for construction jobs may be as high as 571, the number of females may be as high as 128, and the total number of individuals available for construction work may be as high as 2,366.
- Assuming that about three-fourths of the active job seekers in the construction industry are actually qualified, the size of the available labor force may be about 1,782, thus, accommodating growth in construction jobs of about 13 percent.

- Construction industry employment has been stable for the past 3 years.
- Construction projects and business facility investments in the Omaha MSA announced during 1987 may increase construction industry employment by as much as 1,587 jobs each year for the period 1988-90, by 1,283 jobs a year for the period 1991-93, and by 233 construction jobs a year for the period 1993-2002.
- Expected construction industry employment change will likely exceed the current available labor force, and new growth, if it occurs, will be in addition to normal turnover, which is heaviest in the helper/laborer occupations.
- Growth, coupled with an aging work force, may strain the ability to fill job openings in the construction industry in the Omaha MSA, especially at the entrant level.
- These patterns suggest that a concerted effort to recruit and train persons for construction jobs will be necessary; this is particularly true for the trades that require substantial training and experience.
- To help maintain minority and female representation in the construction industry labor force in the Omaha MSA will require concerted efforts to place such persons in the trades.
- Such a strategy will also be consistent with the trend toward a work force which is both smaller and increasingly dominated by women and minorities.

Minority and Female Employment in the Omaha MSA Construction Industry: Status, Trends, and Outlook

Introduction

This profile of minority and female employment in the construction industry in the Omaha Metropolitan Statistical Area (MSA)¹ was developed to provide information to assist the Work Force Analysis Subcommittee of the Construction Industry Liaison Committee (CILC). The CILC represents a public-private effort to increase minority and female employment in the construction industry in the Omaha MSA. The profile briefly examines:

- Construction industry employment trends in the Omaha MSA,
- Minority and female employment in the construction industry,
- Labor availability, and
- Future prospects for construction industry employment.

The fundamental purposes of this profile are to provide basic information to CILC and other organizations and to quickly assess the need for program efforts to recruit and train female and minority persons for employment in construction jobs. Such a concern arises from several interests, including: The need to meet federal and local construction work force targets for female and minority employment, the realization that the U.S. (and local) work force is comprised increasingly of both older and minority workers, and the prospect of increased construction activity in the Omaha MSA in the next few years.

Generally, this profile focuses on the 1980-87 period. In some cases, data to address a specific topic, total construction employment, for example, are available for both 1980 and 1987. In other cases, data were available only for

¹The Omaha Metropolitan Statistical Area currently encompasses Douglas, Sarpy, and Washington Counties in Nebraska and Pottawattamie County in Iowa. With the exception of table 1 (for years 1983-87), the data and tables contained in this profile do not include Washington County in Nebraska. Washington County is excluded because it was not a part of the Omaha Metropolitan Statistical Area when the 1980 Census of Population was conducted. The exclusion of Washington County should not alter the basic findings and conclusions of the report because the county's share of the metropolitan construction work force is just 1.6 percent.

1980, and estimates for 1987 were developed to provide some sense of current conditions. Estimates are just that, however, and the limitations of any estimates used in this profile should be kept in mind.

In some cases, data reflect employment in the construction industry. In other cases, data are reported for construction occupations. The reader should take care to distinguish between the two and not try to reconcile differences in totals. Industry figures are reported by business establishments (which employ persons other than construction workers, such as accountants and secretaries), while occupational figures are reported by individual workers (who may work in industries other than construction (for example, an electrician who works in a factory)).

The reader must also keep in mind that the information portrayed in this summary represents readily available data only. In most cases, the data were not originally collected to address minority and female employment trends in the construction industry. While it would be possible to collect better, more specific data, the cost would be substantial.

Construction Industry Employment Trends

Total construction industry employment stood at 12,727 and comprised just over 4 percent of total employment in the Omaha MSA in 1987 (table 1). Special trades, including plumbing, painting, and electrical work, and work for general contractors under subcontract or directly for property owners, accounted for 63.6 percent (8,092 persons) of total construction industry employment in the Omaha MSA.

Table 1
Construction Industry Employment: Omaha MSA, 1980-87

Year ¹	Type of construction			
	Building	Heavy	Special trades	Total
	Number			
1980	2,537	1,829	6,057	10,423
1981	2,323	1,677	5,897	9,897
1982	2,060	1,448	5,294	8,802
1983	2,676	1,472	5,994	10,142
1984	2,984	1,547	6,955	11,486
1985	3,361	1,543	7,764	12,669
1986	3,267	1,341	7,704	12,312
1987 (preliminary)	3,245	1,390	8,092	12,727

¹Washington County included in figures for 1983-87.

Source: Compiled from data supplied by Labor Market Information, Nebraska Department of Labor.

Building construction, an industry subgroup which includes contractors primarily engaged in the construction of dwellings, office buildings, stores, and other building construction projects, employed 3,245 persons (25.5 percent). Heavy construction (highways, pipelines, communications and power lines, sewer and water mains, and other heavy construction projects) accounted for 1,390 jobs (10.9 percent) in the Omaha MSA.

The 1987 construction industry employment represents an increase of 22.1 percent from 1980 employment of 10,423 workers (table 1). Construction industry employment in the Omaha MSA has been cyclical, however, with total jobs ranging from a low of 8,802 in 1982 (down 15.5 percent from 1980) to the current high level for the period. It should be noted, however, that total construction employment has been relatively stable for the past 3 years.

During 1980-87, there has been some change in the distribution of employment within the Omaha MSA construction industry. Heavy construction employment declined from 17.5 percent of total construction industry employment in 1980 to 10.9 percent in 1987. During the same period, the share of total construction industry employment accounted for by special trades increased from 58.1 percent to 63.6 percent. Building construction's share remained relatively stable (24.3 percent in 1980 and 25.5 percent in 1987).

Minority and Female Construction Industry Employment in Omaha

One of the primary concerns of CILC is the employment of female and minority individuals in the Omaha MSA construction industry. Assessing current (1987) minority and female employment patterns within the construction industry is difficult, because no detailed information has been compiled on the topic since the *1980 Census of Population*.

Information presented in this section relies upon several data sources to provide a profile of minority and female construction industry employment. First, *1980 Census of Population* data are used to characterize previous minority and female employment patterns within the construction industry. To provide an estimate of current female and minority employment within this industry, construction employment data for 1980 and 1987, and data on race and gender of job seekers for 1980 and 1987 are used.

Minority and Female Construction Industry Employment in 1980

In 1980, the number of employed persons aged 16 and over in the Omaha MSA was 257,780. Females comprised 45.2 percent (116,614) of the area labor force. The minority portion of the metropolitan area's labor force totaled 21,955, or 8.5 percent.

Table 2 shows that 11,706 persons reported to the U.S. Bureau of the Census that they worked in construction occupations in 1980. This figure is different from the 1980 total reported in table 1 for several reasons. One reason is that many construction occupations (for example, electricians) are not employed in construction industries. A second reason is that the data reported in table 1 do not include sole proprietor businesses, because they are not a part of the unemployment insurance system from which the data are drawn. The census data reported in table 2 do include sole proprietors and employees. A final reason for the difference is that the information in table 2 is for all persons in the labor force, including the unemployed.

Table 2
Total, Female, and Minority Employment, by Construction Occupation,
Omaha MSA, 1980

Occupational group	Construction employment					
	Female		Minority		Total	
	No.	%	No.	%	No.	%
Construction trades	193	2.1	624	6.8	9,163	100
Construction equipment operators	41	8.0	57	11.1	514	100
Construction helpers and laborers	71	5.1	215	15.4	1,399	100
Total	305	2.8	896	8.1	11,076	100

Source: *Detailed Population Characteristics: Nebraska, 1980*. U.S. Department of Commerce, Bureau of the Census, 1983. Washington, DC. p. 29-178 through 29-182.

Table 2 also provides information on minority and female employment in 1980. Within the construction industry, minority persons (including minority females) comprised 8.1 percent of total employment. Females (including minority females) comprised 2.8 percent of total construction industry employment. Although data are not shown, when nonwhite females are not included in the female figures reported in table 2, the total number of female and minority individuals employed in the construction industry in the Omaha MSA in 1980 was 1,172. This was 10.6 percent of total employment for the industry in 1980.

Table 3 provides information on the distribution of female and minority employment among three major occupational categories within the construction industry, construction trades (for example, plumbers, drywall installers, and carpenters), construction equipment operators (for example, excavators, loaders, dozers, and graders), and construction helpers and laborers.

Table 3
Distribution of Total, Female, and Minority Construction Laborers,
by Construction Occupations, Omaha MSA, 1980

Occupational group	Construction employment		
	Female	Minority	Total
	Percent		
Construction trades	63.3	69.6	82.7
Construction equipment operators	13.4	6.4	4.7
Construction helpers and laborers	23.3	24.0	12.6
Total	100.0	100.0	100.0

Source: *Detailed Population Characteristics: Nebraska, 1980*. U.S. Department of Commerce, Bureau of the Census, 1983. Washington, DC. p. 29-178 through 29-182.

Table 3 shows that both female and minority individuals are less likely to be employed in the trades and more likely to be employed either as operators of construction equipment or as helpers/laborers. For example, while just 12.6 percent of total construction industry employment in 1980 was in the helper/laborer category, 24.0 percent of minorities employed in the construction industry in the Omaha MSA were in this category. At the same time, while 82.7 percent of total employment was in the trades category, 69.6 percent of minority and 63.3 percent of female construction employment was in this category.

Minority and Female Construction Industry Employment in 1987

To provide current information on minority and female employment in the construction industry, estimates were developed for 1987. Great caution should be exercised in basing decisions on this data; it should be seen as a ball-park figure only.

To develop the estimates of minority and female employment in the Omaha MSA construction industry, the following steps were followed:

- Information on the number of persons actively seeking construction jobs through the offices of the Nebraska Job Service in 1980 and 1987 were compiled (table 5).
- The absolute change in the number of job seekers in the construction industry during 1980-87 was computed for all individuals seeking jobs and for females and minorities seeking jobs.

This information was used to identify the female and minority share of the change in the number of job seekers during 1980-87. A decline in the number of registered job seekers, it was reasoned, would be indicative of increasing employment placement.

Using these first two steps, we see that minority job seekers declined by 106 from 1980 to 1987 (table 5). This constitutes 12.1 percent of the decline of 875 job seekers registered with the Nebraska Job Service in Omaha.

- Next, the percentage change in total construction industry employment for the jobs reported in table 1 was computed, because the data span the period of interest, 1980-87 (22.1 percent).
- To develop figures consistent with the census data (which provide accurate data on female and minority construction industry employment), the percentage change in construction industry employment reported in table 1 (22.1 percent for 1980-87) was applied to the 1980 census figure of 11,076 (table 2). This yielded an increase of 2,448 construction jobs for a 1987 census-based employment level of 13,524.
- The final step involved applying the female and minority share of employment growth (derived from the group's share of the decline in active job seekers in the construction industry) to total construction industry job growth.

As indicated earlier, from 1980 to 1987 the minority share of the total decline in the number of individuals seeking construction employment was 12.1 percent. If this figure is applied to the total increase in number of construction jobs (2,448), the minority share of construction employment growth would be about 296 jobs. This total would be added to the 1980 minority employment total for the construction industry (896) for an estimated minority employment level of 1,192 in 1987.

Table 4 summarizes information developed using the methodology outlined above. As indicated, it is estimated that 1,192 minority individuals held construction jobs in 1987. This employment level is 8.8 percent of total construction industry employment, up from the 8.1 percent in 1980 (table 2). The estimates indicate that 325 females held construction jobs in 1987. This represents 2.4 percent of all Omaha MSA construction industry jobs, a decline from the 1980 proportion of 2.8 percent.

Table 4
Total, Female, and Minority Employment and Share of Construction Employment
in the Omaha MSA, 1980 and 1987

Occupational group	Construction employment		
	Female	Minority	Total
		Number	
Construction employment, 1980	305	896	11,076
		Percent	
Share of 1980 construction employment	2.8	8.1	100
		Number	
Estimated construction employment, 1987	325	1,192	13,524
		Percent	
Share of 1987 estimated construction employment	2.4	8.8	100

Source: 1980 figures from *Detailed Population Characteristics: Nebraska, 1980*. U.S. Department of Commerce, Bureau of the Census, 1983. Washington, DC. p. 29-178 through 29-182. 1987 estimates prepared by the Center for Applied Urban Research, University of Nebraska at Omaha.

While these estimates indicate some change in minority and female construction industry employment during 1980-87, the differences could be the result of error associated with the estimating procedure, which involves many assumptions which may depart from actual behavior. For example, it is assumed that the decline in the number of active job seekers reflects placement in the construction industry. Perhaps the decline is actually a function of persons becoming discouraged or finding employment in other industries in the area.

Labor Availability

The size and skills of an area's labor force exert an influence upon recruiting and training programs for a specific industry or set of occupations. Because of the apprenticeship, training, and experience requirements of many construction jobs, it is difficult to estimate what the available, qualified labor force is at a given point in time. At the same time, it is important to try to ascertain general patterns of labor availability, because growth in a specific set of occupations, helper/laborer positions, for example, would dictate a different recruiting and training effort than would growth in the trades.

Table 5 presents information on one indicator of the size of the Omaha MSA labor force currently available for construction industry employment. The data represent active job seekers registered at the Omaha offices of the Nebraska Job Service. Generally, it is accepted that somewhere between 20 to 40 percent of the available labor force makes contact with the job service.

Table 5 shows that the number of minority persons seeking construction industry employment in June 1987 was 357. This represents 24.1 percent of the 1,479 persons seeking construction industry jobs at that time. Females accounted for 80, or 5.4 percent of job seekers.

Although the number of minority individuals available for construction work declined from 1980 to 1987, the minority proportion of the available labor force increased from 19.7 percent to 24.1 percent. The female proportion also increased (from 3.7 percent in 1980 to 5.4 percent in 1987). Thus, it appears that the proportion of the area's labor force comprised of the two target groups has probably increased since 1980. The exact reasons for this pattern are not clear.

Still we ask, what is the size of the available labor force? Assuming that the job service data account for about 30 percent of those actually seeking work in the construction industry, the number of minority individuals seeking work might be as high as 571, and the number of females might be as high as 128. Overall, the number of individuals available for work might total 2,366.

Table 5
Types of Job Seekers in the Construction Industry,
Omaha MSA Job Service Offices, June 1987

All construction occupations	Type of job seeker		
	Female	Minority	Total
June 1980: Number, ¹ Percent	87 3.7	463 19.7	2,354
June 1987: Number, ¹ Percent	80 5.4	357 24.1	1,479

¹Represents the group's share of job seekers in the construction industry.

Source: Compiled from data supplied by Labor Market Information, Nebraska Department of Labor.

Assuming that three-fourths of these individuals (1,782) are actually qualified to fill construction jobs, the available labor force could accommodate growth of about 13 percent. Whether this is realistic or not is unknown. If future growth in the construction industry in the Omaha MSA follows recent trends, growth is likely to be centered in the construction trades, which apparently are more difficult for females and minorities to enter. This may indicate a need for recruiting and training efforts to ensure minority and female placement in such positions. The need for recruiting and training programs may be even more important given the aging of the U.S. work force.

Future Employment Demand in the Construction Industry

The construction industry is tied closely to changes in population, income, interest rates, and health of the national and local economies. As a result, construction industry employment fluctuates with business cycles, resulting in peaks, valleys, and plateaus. Thus, projecting future employment demand in the construction industry is dependent upon a range of factors.

While employment in the construction industry grew by 22.1 percent in the Omaha MSA from 1980 to 1987, the number of jobs has been flat since 1985. The safest guess would be that construction industry employment will remain relatively stable in the area. In this case, new employment in the construction industry would be dependent upon turnover and retirement rates.

It is likely that the normally high turnover rate in the construction helper/laborer occupations will create the need for additional employees. The construction trades occupations have a fairly low turnover rate, however, because of the training and other entry costs associated with such jobs. Whether the aging characteristic of the national labor force applies to Omaha's construction trades work force is not known. If it does, then more job openings could occur in the construction industry than might normally be expected during a plateau in employment.

With the easing of the agricultural crisis, the passage of LB 775, and the rebuilding and improving of the interstate highway system in the Omaha MSA, many people think that construction activity will pick up substantially. To provide some information on the possible impacts of these projects on construction industry employment, the number of construction jobs which could be expected was estimated.

Table 6 shows construction jobs which could be created by four projects. In addition to the total construction job impact for each project, annualized estimates are presented for 1988-93. As can be seen, the riverfront development project could add as many as 1,681 construction job-years during

Table 6
Potential Construction Employment in Omaha MSA Proposed Projects

Proposed project	Total construction job/years possible	Year	Annual increment of construction jobs	Percentage of 1987 base
	Number		Number	Percent
Riverfront development	1,681	1988-1993	280	2.2
Northwestern Bell	913	1988-1990	304	2.4
LB 775 investments pledged in 1987 ¹	4,621	1988-1993	770	6.1
Omaha MSA interstate highway reconstruction	3,498	1988-2002	233	1.8
Total:				
1988-90	4,762	-	1,587	12.5
1990-93	3,849	-	1,283	10.1
1993-2002	2,097	-	233	1.8

- = not available.

¹ Does not include Con Agra, Union Pacific, and Northwestern Bell construction which is listed separately.

1988-93. This represents roughly 280 jobs per year. The Northwestern Bell project could create as many as 913 construction job-years. Whether these would be spread over a 2-3 year period is not clear. But, assuming a 3-year period, the annual increment would be just over 300 jobs.

If all of the investment pledged by Omaha MSA companies in the LB 775 applications filed in 1987 takes place, about \$398 million in facilities and equipment investment will occur during 1988-93. This could produce as many as 4,621 construction job-years, or about 770 each year for the next 6 years.

Rebuilding the interstate highway system in the Omaha area will also add construction jobs. The Nebraska Department of Roads estimates that as much as \$230 million in construction could take place over the next 15 years. A construction program of this level could create 3,498 construction job-years, or about 233 each year for the next 15 years (table 6).

When the riverfront development and planned LB 775 expansions are combined, the number of construction job-years which may be created during the next 6 years is about 6,302. This would translate into about 1,050 jobs per year for 6 years. Such an increase would represent an increase of about 8.2 percent above the 1987 construction employment level of 12,727. Interstate highway reconstruction could add another 233 jobs a year, or an additional 1.8 percent, for 15 years. The Northwestern Bell project has the potential to add about 304 construction jobs per year for 3 years beginning in 1988.

Obviously, these estimates are only rough guides of what might actually happen. For them to materialize, all planned LB 775, riverfront development, and interstate highway construction expenditures will have to take place.