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ABSTRACT

Differences in underemployment, defined as employment below one's actual or potential skill level, were investigated for a stratified random sample of 602 individuals representing an estimated labor force of 410,074 in the Tidewater area. Data were obtained by questionnaire and were analyzed according to occupational level, job attitudes, job promotion, and occupational aspiration. It was found that the present occupational level was significantly affected by race and/or sex. Promotions definitely favored males over females and slightly favored white males over Negro males. Within the total sample, job satisfaction varied according to age and race. Sex differences for job satisfaction existed among white workers only. A bibliography and the questionnaire used in this study are appended. (CH)

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MANPOWER UTILIZATION IN TIDEWATER-  
HAMPTON ROADS, VIRGINIA

MANPOWER RESEARCH INSTITUTE  
NORFOLK STATE COLLEGE

SUPPORTED BY  
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### CORRECTIONS

Footnote number 21 should read as follows: <sup>21</sup> Monthly Labor Review, (September, 1968) Vol. 91, no. 9, p. 84. This footnote is found on page 16.

In Table 1, for the City-Norfolk, the number interviewed should be 236. This is found on page 8.

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## INTRODUCTION

One of the complex problems facing our nation today, as it has been over past years is the underutilization of the work force. In order for any nation to develop toward its maximum capabilities, its manpower has to be fully utilized.

Underutilization is a concept that is widely used but as a research phenomenon it develops problems.<sup>1</sup> The paucity of studies that have focused on the measurement of the concept has created problems; most of which are still to be resolved. The unemployment rate of a particular area - "the proportion in the labor force looking for work" - provides the best single measure of the extent to which our economy is failing to utilize its human resources."<sup>2</sup> However, unemployment does not fully explain the extent of underutilization. According to the Manpower Report of the President:

The country's underutilized people may be separated into four major groups (in addition to the unemployed): Workers employed below their actual or potential skill level; persons outside the labor force who desire or need work; full-time, year round workers with inadequate earnings; and employed persons who are relegated to short work-weeks for reasons beyond their control.<sup>3</sup>

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<sup>1</sup>"Mobility and Worker Adaptation to Economic Change in the United States" Manpower Research, Bulletin No. 1, (July, 1963), p. 16.

<sup>2</sup>"Unused Manpower: The Nation's Loss," Manpower Research, Bulletin No. 10, (November, 1965), p. 1.

<sup>3</sup>Manpower Report of the President by the United States Department of Labor (January, 1969) p. 45.



Using the above classification as a point of departure, the present study will focus on one phase of this vast problem. The basic concern here is with those individuals who are actually employed in an occupation; but employed below their actual or potential skill level.

The idea has long been fostered that underutilization is highly prevalent within the Tidewater, Virginia area. With this in mind, the Norfolk State College Manpower Research Institute initiated a pilot study. The pilot study, although limited by a convenient sample from only two industries (Globe Iron Construction Company and the Norfolk Naval Base), revealed the existence of a large enough problem within these two industries to warrant the present study.

Within the American labor market a complete cross-section of individual attributes are represented. For instance, the young and the old; Negroes, whites, and other minority groups; males and females; the well educated and those with little or no education. As a result of this conglomeration of attributes, many problems arise in trying to fully utilize the nation's work force. At one end of the continuum there are those individuals who tend to have the greatest potential of being utilized the fullest - the young, well educated white males; at the other end of the continuum fall the older, least educated Negro females who are utilized the least.<sup>4</sup> Only the extremes

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<sup>4</sup>These conclusions are drawn from extensive reading in the area. Briefly some sources are: American Women Report of the President's Commission on the Status of Women, 1963; Social and Economic Conditions of Negroes in the United States 1365 Report No. 332; Current Population Reports, Series P-23, No. 24;



can be visualized--those workers who fall in between these two groups are the majority and present a bleary configuration.

When the situation has been studied it has been found that some workers are able to move up the occupational hierarchy with relative ease, while others have moved slowly or not at all.<sup>5</sup> It is expected that the well educated will move the fastest and the farthest, while the least educated move the slowest or not at all. However, other intervening variables tend to play an important role in explaining this phenomenon. Race, for instance, plays a major role. Studies show that when controlling for education whites have a disproportionately high percentage of individuals in the top occupational categories - professional, managerial, and technical. The same studies show that Negroes have a disproportionately high percentage in the lower occupational levels - semiskilled and unskilled.<sup>6</sup> One study showed that between 1962 and 1966 a big improvement occurred in the types of jobs held by Negroes. However, a great disparity still exists between Negroes and whites. In March 1966, only 36%

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"Unused Manpower: The Nation's Loss" Manpower Research Bulletin No. 10 (November, 1965); Utilization of Women Workers, a Reprint from the 1967 Manpower Report by the U.S. Department of Labor Women's Bureau.

<sup>5</sup>Harvey R. Hamel, "Educational Attainment of Workers." Monthly Labor Review. Vol. 91, No. 2, (February, 1968), pp. 26-34. Also see: Harvey R. Hamel "Educational Attainment of Workers." Monthly Labor Review. Vol. 90, No. 6, (June, 1967), pp. 39-47.

<sup>6</sup>See Occupational Outlook Quarterly, U.S. Department of Labor, Vol. 10, No. 4 (December, 1966), p. 7; Joe L. Russell, "The Negro's Occupational Progress," Occupational Outlook Quarterly, Vol. 10, No. 4, (December, 1966), p. 10; Occupational Mobility of Employed Workers Special Labor Force Report No. 84, p. 35.

of the Negro men versus 58 percent of the white men with at least a high school diploma worked at white collar jobs.<sup>7</sup> The outcome is underutilization because of prejudice and/or discrimination. Individuals who could possibly make a major contribution, were not being allowed to as a result of the lack of opportunity.

In looking at sex, one finds that females are often not promoted at the same rate as males.<sup>8</sup> Females are often denied decision-making jobs, not because of the lack of education, but because they are female. The problem intensifies itself further when race and sex are examined together. Even sex as a major causal factor tends to wash out when race is introduced. white females are often placed in higher positions than Negro males, when both are equally educated. This statement seems to support discrimination according to sex, but not race. However, it is only presented to show that even under the present structure of sex discrimination, when race is introduced sex tends to be spurious.

To extend this discussion to age reveals the same trends being continued. The young when entering the labor market are disadvantaged when poorly educated.<sup>9</sup> Sex and race are still major factors, with females and Negroes settling for the lower level occupations regardless of age.

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<sup>7</sup>Harvey R. Hamel, "Educational Attainment of Workers. Monthly Labor Review. Vol. 90, No. 6, (February, 1968), p. 44.

<sup>8</sup>American Women Report of the President's Commission on the Status of Women, 1963, pp. 4-5.

<sup>9</sup>Vera C. Perrella and Forest A. Bogan, Monthly Labor Review, Vol. 87, No. 11, (November, 1964), pp. 1260-1268.

Probably the greatest loss of talent results from not utilizing the old (beyond the prime working years 21 to 54) who are trying to re-enter the labor market or change jobs.<sup>10</sup>

Walter L. Slocum in his book Occupational Careers states:

Discrimination against older workers is widely practiced in American industry and even in government. Industrial workers displaced after reaching age 40 frequently have considerable difficulty finding new positions commensurate with those they have lost, and they have virtually no chance of entering higher level occupations.<sup>11</sup>

When all the factors cited here and other factors not mentioned are brought together, the problem of underutilization looms large within the American labor force. This is especially significant when it is borne in mind that this study is focusing on only one aspect of underutilization - those individuals that are employed below their actual or potential skill level.

#### PURPOSE OF THE STUDY

Specifically, this study will attempt to determine the degree of underutilization among a cross-section of Tidewater workers. The major emphasis will be placed on attempting to determine if differences in underutilization exist according to race and sex. The focus will also be on such related factors as: 1) income; 2) education, 3) promotion; 4) attitudes toward the job; 5) attitudes toward competence; and 6) aspirations.

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<sup>10</sup>Occupational Mobility of Employed Workers Special Labor Force Report No. 84, pp. 33-34.

<sup>11</sup>Walter L. Slocum, Occupational Careers (Chicago: Ill.: Aldine Publishing Company, 1966), p. 195.

## Hypotheses

From the above orientation toward underutilization and the pilot study the following hypotheses are put forth to be tested in this study.

### Major Hypotheses

1. It is expected that underutilization exists within the Tidewater, Virginia area.
2. It is further expected that underutilization varies according to race, sex, and age.

### Sub Hypotheses

1. It is expected that occupational level will vary according to race, age, sex, and education.
2. It is expected that attitudes toward job will vary according to race and sex.
3. It is expected that having received a promotion will vary according to race, age, and sex.
4. It is expected that occupational aspirations will vary according to race, age, and sex.

### Operational Definition of Underutilization

As was stated earlier the measurement of underutilization poses a somewhat difficult problem. The researcher is faced with the task of determining what is acceptable as evidence of underutilization. From a theoretical standpoint it has already been mentioned that the focus here is only on one phase of underutilization--employment below one's actual or potential skill level.

Therefore, in this study, underutilization will be assumed to have occurred if: a significant percentage of workers who have attained a relatively high educational level are working in low status occupations; a significantly higher percentage of Negro workers are in lower status occupations than whites when education is controlled; a significant percentage of female workers are in lower status occupations than male workers when education is controlled; and other combinations of those just stated (plus age) that show significant differences in employment.

## METHOD OF RESEARCH

### General Approach

The Interdisciplinary Team and Advisory Committee suggested that the area wide survey consist of 602 randomly selected individuals chosen from the household listing of the 1967 directories for Tidewater, Virginia. In keeping with this suggestion 602 respondents were selected from the following cities and the county that makes up Tidewater, Virginia: the cities are Norfolk, Newport News, Portsmouth, Hampton, Virginia Beach, Chesapeake, Williamsburg, Suffolk, and York County. The sample percentage for each city was determined by computing the total civilian work force as of September, 1966 for each city in the Tidewater Area. See Table I below.

TABLE I

CIVILIAN WORK FORCE FOR TIDEWATER, VIRGINIA AS OF SEPTEMBER, 1966<sup>12</sup>

City	Number	Percent	Number of Interviews
Norfolk	129,578	39	234
Newport News	60,488	18	108
Portsmouth	40,003	12	72
Hampton	32,850	10	60
Va. Beach	26,833	8	48
Chesapeake	17,275	5	30
Williamsburg	8,782	3	18
Suffolk	8,488	3	18
York County	6,362	2	12

<sup>12</sup>Research, Statistics, and Information Division, Virginia Employment Commission. July 30, 1967.



The following steps represent a detailed description of the way in which the random selection of each city sample was drawn:

1. Using the city directory of each city one household from each two-page spread was selected for inclusion in the sample.
2. Each page was counted as one page regardless of the size of the columns thereon (Altered by advertisements, business establishments, etc.). For each two-page spread (six columns per page) the column to be used was chosen by random selection; using numbers 1-20. Two numbers were drawn from this range initially. If the first number drawn did not provide a column with households listed, the second was used. If the second number was not useful, this step was repeated.
3. The position of the household within the selected column was chosen by use of the Table of Random Numbers.<sup>13</sup> After the random number was selected for the household; starting at the top of the selected column the count continued downward until the selected number was located.
4. Step 3 was continued until a household was selected.

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<sup>13</sup>Wilfred J. Dixon and Frank J. Massey, Jr., Introduction to Statistical Analysis (New York: McGraw-Hill Book Company, 1957).



5. Steps 2, 3, and 4 were repeated if the sample size for the city was not derived when the first sample listing was exhausted.
6. Introductory letters were mailed to the selected households. If the name was not listed, the letter was addressed to: 'Head of Household.'
7. Follow-up telephone calls and visits were made to determine the available time for the interview, and the name of the adult respondent. Directory listed respondents or heads of household were not interviewed if they indicated unavailability, and the name of spouse or adult child living in the household was substituted.
8. An alternate was used if the contacted person indicated that he would not or could not be interviewed, and would not substitute a name as indicated in step seven. Also, an alternate was used if the listed respondent had moved, was deceased, or the residence no longer existed.

### The Population<sup>14</sup>

The area referred to in this study as the Tidewater area is made up of two metropolitan areas - the Norfolk-Portsmouth metropolitan area and the Hampton-Newport News metropolitan area. The two Standard Metropolitan Statistical Areas are

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<sup>14</sup>Information, unless otherwise documented derived from Tidewater Virginia Statistics, (1968) published by the Tidewater Virginia Development Council, Norfolk, Virginia.

connected by the Hampton Roads Bridge-Tunnel which spans the mouth of the Chesapeake Bay. The Norfolk-Portsmouth SMSA consists of the five contiguous cities of Norfolk, Portsmouth, Chesapeake, Virginia Beach, and Suffolk. The Hampton-Newport News SMSA, located five miles northwest of Norfolk, consists of the cities of Hampton and Newport News, and the county of York. The combine area referred to here as Tidewater, Virginia has nearly one million (actually estimated at 986,352 in July, 1965)<sup>15</sup> people.

The centrality of the region is explained by the number of people who commute to the area to shop, work and recreate. The daily immigration is 6551.<sup>16</sup> This inflow gives the area a labor force of 410,074 as of March 1965.<sup>17</sup>

Within the Norfolk-Portsmouth area is located one of the largest concentration of naval installations in the world. Among the major installations are: the Atlantic Fleet, The Second Fleet, NATO's Supreme Allied Command Atlantic (SACLANT), the Armed Forces Staff College, the Commandant Fifth Naval District at Norfolk and the Navy Yard at Portsmouth. The

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<sup>15</sup>Projections and Economic Base Analysis, Newport News-Hampton Metropolitan Area, 67-6, (June, 1962), Governor's Office, Division of Planning, Table 2, p. 13. Also, Projections and Economic Base Analysis, Norfolk-Portsmouth Metropolitan Area, 67-5, (June, 1967), Governor's Office, Division of Planning, Table 2 p. 12.

<sup>16</sup>See Table 5. Places of Work for Newport News-Hampton Metropolitan Residents, (April, 1960), p. 18. Table 5, Places of Work for Norfolk-Portsmouth Metropolitan Area, (April, 1960), p. 17.

<sup>17</sup>Ibid., p. 3.

Norfolk-Portsmouth area also serves as a transportation hub. The city of Norfolk ranks first among all ports in tonnage exported; well ahead of New York City, Baltimore, Philadelphia, and New Orleans.

The principal industry in the Hampton-Newport News area is the Newport News Shipbuilding and Drydock Company, with approximately 20,000 employees. The federal government with installations at Langley Air Force Base, Fort Eustis, and Fort Monroe provide a significant portion of the employment. Also, a significant source of employment for the Tidewater area results from the resort and recreation facilities located within it.

The importance of the area as a source of study can be partially justified by looking at the rapidly increasing population.

TABLE 2  
POPULATION GROWTH COMPARISONS<sup>18</sup>

Area	1940	1950	1960	1965	1975	1985
United States (000)	132,165	151,326	179,323	194,035	224,131	260,383
Virginia (000)	2,678	3,319	3,967	4,426	5,500	6,600
Hampton Roads Region	344,827	559,963	821,381	938,191	N.A.	1,519,648

<sup>18</sup> Population Characteristics, Hampton, Virginia: City Planning Commission, (December, 1966), p. 24. The above table is a partial presentation of the table presented in Population Characteristics. The Hampton Roads Region does not include all the areas included in the Tidewater Area as defined here. Excluded are Suffolk and York Counties.

TABLE 3  
PERCENT INCREASE PER YEAR<sup>19</sup>

Area	1940- 1950	1950- 1960	1960- 1965	1965- 1975	1975- 1985	1940- 1965	1965- 1985	1940- 1985
United States	1.4	1.8	1.6	1.6	1.6	1.9	1.7	2.2
Virginia	2.4	2.0	2.3	2.4	2.0	2.6	2.5	3.2
Hampton Roads Region	6.2	4.7	2.8	N.A.	N.A.	6.9	3.1	7.8

Tables 2 and 3 reveal comparisons between the Hampton Roads Area, the Commonwealth of Virginia, and the United States concerning population increase. Table 3 attests to the fact that the present rate of increase, between 1940-1965 is greater for the Hampton Roads area than for Virginia or the United States. Table 3 also shows that the projected rate of increase between 1940 and 1985, of Hampton Roads (7.8 percent) is greater than for the United States (2.2 percent) and Virginia (3.2 percent).

### The Sample

The stratified random sample of 602 respondents was drawn from an estimated labor force of 410,074 within the Tidewater area.

Table 4 reveals the number of employees in the sample according to age, race, and sex. As expected the largest per-

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<sup>19</sup>1960-1985 Population Characteristics (Hampton, Virginia: City Planning Commission, 1966) p. 24.

TABLE 4

## NUMBER OF EMPLOYEES BY AGE, RACE, AND SEX

RANGE	-----		NEGRO		-----	
	MEN	PERC	WOM	PERC	TOT	PERC
1 to 20 Years	7	4.3	5	4.7	12	4.4
21 to 25	20	12.2	12	11.2	32	11.8
26 to 30	24	14.6	14	13.1	38	14.0
31 to 35	13	7.9	6	5.6	19	7.0
36 to 40	23	14.0	14	13.1	37	13.7
41 to 45	21	12.8	12	11.2	33	12.2
46 to 50	14	8.5	11	10.3	25	9.2
51 to 55	21	12.8	9	8.4	30	11.1
56 to 60	8	4.9	7	6.5	15	5.5
61 to 65	4	2.4	9	8.4	13	4.8
66 to 70			3	2.8	3	1.1
Over 70	2	1.2	3	2.8	5	1.8
Other	1	.6	0	0.0	1	.4
No Response	6	3.7	2	1.9	8	3.0
<b>TOTAL</b>	<b>164</b>	<b>27.2</b>	<b>107</b>	<b>17.8</b>	<b>271</b>	<b>45.0</b>

TABLE 4--Continued

-----WHITE-----						-----GRAND TOTAL-----					
MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
8	3.3	1	1.2	9	2.7	15	3.7	6	3.1	21	3.5
20	8.1	12	14.1	32	9.7	40	9.8	24	12.5	64	10.6
25	10.2	5	5.9	30	9.1	49	12.0	19	9.9	68	11.3
18	7.3	9	10.6	27	8.2	31	7.6	15	7.8	46	7.6
34	13.8	6	7.1	40	12.1	57	13.9	20	10.4	77	12.8
32	13.0	11	12.9	43	13.0	53	12.9	23	12.0	76	12.6
36	14.6	6	7.1	42	12.7	50	12.2	17	8.9	67	11.1
21	8.5	7	8.2	28	8.5	42	10.2	16	8.3	58	9.6
22	8.9	8	9.4	30	9.1	30	7.3	15	7.8	45	7.5
13	5.3	11	12.9	24	7.3	17	4.1	20	10.4	37	6.1
10	4.1	4	4.7	14	4.2	10	2.4	7	3.6	17	2.8
5	2.0	0	0.0	5	1.5	7	1.7	3	1.6	10	1.7
0	0.0	0	0.0	0	0.0	1	.2	0	0.0	1	.2
2	.8	5	5.9	7	2.1	8	2.0	7	3.6	15	2.5
246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0



centage of the respondents fell into the prime working years - 21 to 54 (75.6 percent). The remaining percentage was made up of the 16 to 20 age group (3.5 percent) and the 56 years and over age group (18.1 percent).

Within the male category, there are 3.7 percent which fall in the 16-20 age group, 78.6 percent in the 21-55 age group, and 15.5 percent in the 56 years and over age group. The distribution of females revealed that 3.1 percent fell into the 16-20 age group, 69.8 percent in the 21-55 age group, and 23.4 percent in the 56 and over age group. Compared with the 1967 annual average breakdown for all workers in the United States, presented below, a close resemblance can be seen for males. Females revealed a greater disparity than the males.<sup>20</sup> See Table 4a.

TABLE 4a

1967 ANNUAL AVERAGE LABOR FORCE (PRESENTED IN THOUSANDS)<sup>21</sup>

AGE	MALE	PERCENTAGE	FEMALE	PERCENTAGE
16-19	3,186	6.7	2,496	9.2
20-54	35,462	74.6	19,684	73.1
55 and over	8,832	18.6	4,714	17.5
TOTAL	47,480	99.9	26,894	99.8

<sup>20</sup>The categories vary slightly between this sample and the United States labor force population breakdown. This variation in the categories could possibly account for the difference.

<sup>21</sup>Allen L. Edwards, Statistical Methods, New York: Holt, Rinehart and Winston, Inc., 1967. pp. 396-400.



TABLE 5

EDUCATION BY SEX AND RACE

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
0 to 6	21	12.8	14	13.1	35	12.9	17	6.9	6	7.1	23	6.9	38	9.3	20	10.4	58	9.6
7 to 11	68	41.5	44	41.1	112	41.3	63	25.6	29	34.1	92	27.8	131	32.0	73	38.0	204	33.9
12	31	18.9	27	25.2	58	21.4	92	37.4	27	31.8	119	36.0	123	30.0	54	28.1	177	29.4
13 to 15	35	21.3	12	11.2	47	17.3	40	16.3	11	12.9	51	15.4	75	18.3	23	12.0	98	16.3
16 and Above	8	4.9	10	9.3	18	6.6	33	13.4	12	14.1	45	13.6	41	10.0	22	11.5	63	10.5
No Response	1	.6	0	0.0	1	.4	1	.4	0	0.0	1	.3	2	.5	0	0.0	2	.3
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0

In Table 4, 45 percent of the respondents are Negro and 55 percent are white. The largest group represented are the white males (40.9 percent), followed by the Negro males with 27.2 percent, Negro females with 17.8 percent, and white females with 14.1 percent.

Table 5 gives the education of the respondents by sex and race. The largest percentage of all workers fell into the 7-11 years of education category, with the least amount falling in the low education category (0-6). A higher percentage of Negroes (12.9) than whites (6.9) indicated low education.

This is in keeping with the national trend that has shown that although the gap between the educational levels of Negroes and whites is decreasing a disparity still exists.<sup>22</sup>

In looking at the other extreme, the highest educational category (16 and above), the 13.6 percent of white respondents represents a much higher percentage than the 6.6 percent of Negroes falling into this category. Noticeable differences in education are seen between Negro males and females in the 12 year category, the 13-15 category, and the 16 and over category. However, there are no discernible trends visible, because the higher percent falling into any one category vacillates between the two groups. Basically, little differences in education between white males and females can be seen.

The income of these respondents according to sex and race can be seen in Table 6. Big difference in income can be readily visualized in this Table.

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<sup>22</sup>Joe L. Russel, "The Negro's Occupational Progress," Occupational Outlook Quarterly Vol. 10, No. 4, (December, 1966), p. 10.

TABLE 6

INCOME BY RACE AND SEX

RANGE	-----NEGRO-----			-----WHITE-----			-----GRAND TOTAL-----											
	MEN	PERC	TOT	MEN	PERC	TOT	MEN	PERC	TOT									
0 to 3000	29	17.7	49	45.8	78	28.8	10	4.1	13	15.3	23	6.9	39	9.5	62	32.3	101	16.8
3001 to 5000	43	26.2	28	26.2	71	26.2	29	11.8	18	21.2	47	14.2	72	17.6	46	24.0	118	19.6
5001 to 7000	43	26.2	12	11.2	55	20.3	59	24.0	18	21.2	77	23.3	102	24.9	30	15.6	132	21.9
7001 to 9000	26	15.9	3	2.8	29	10.7	56	22.8	8	9.4	64	19.3	82	20.0	11	5.7	93	15.4
9001 to 11,000	11	6.7	4	3.7	15	5.5	29	11.8	2	2.4	31	9.4	40	9.8	6	3.1	46	7.6
Over 11,000	6	3.7	4	3.7	10	3.7	50	20.3	7	8.2	57	17.2	56	13.7	11	5.7	67	11.1
No Response	6	3.7	7	6.5	13	4.8	13	5.3	19	22.4	32	9.7	19	4.6	26	13.5	45	7.5
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0

One can see that a much higher percentage of Negroes than whites are in the low income groups. The reverse is true for the high income groups. For instance, in the \$0-3000 group, 28.8 percent of the Negro workers sampled are located here, whereas only 6.9 percent of the white workers are located in this category. Generally the same is true for the \$3001-5000 group. However, in the \$5,001-7000 group this trend reverses with a slightly higher percent of white workers in this category. In the over \$11,000 category wide differences exist - 3.7 percent of the Negroes and 17.2 percent of the whites. The percent of families with incomes of \$7,000 or more for the southern region of the United States in 1966 was 15 percent non-white and 46 percent white. For this sample, the percentage of whites with incomes over \$7,000 was the same (45.9 percent) as whites for the southern region of the United States. Since the nonwhite classification used by the Bureau of Census included other groups than Negroes meaningful comparisons cannot be made. However, in this sample 19.9 percent of the Negroes made over \$7,000 against the 15 percent nonwhites in the southern region.<sup>23</sup>

Large differences also exist between the sexes. Within the \$0-3000 category, the highest percentage are the Negro females (45.8 percent), followed by the Negro males (17.7 percent), the white females (15.3 percent) and the white males (4.1 percent). In the middle income categories differences tend

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<sup>23</sup>Social and Economic Conditions of Negroes in the United States, 1365 Report No. 332 p. 17.

to not be as discernible. However, in the highest income category (over \$11,000) the 20.3 percent of white males represent the largest group. Following are the white females with 8.2 percent and the Negro males and females with 3.7 percent. These findings indicate that this sample, in distribution of such variables as sex, race, and income are closely similar to the United States population and the distributions of other studies being used as references here.

## ANALYSIS OF THE DATA<sup>24</sup>

### Occupation

It has been hypothesized that the respondent's occupation will vary according to race, sex, age, and education. The following data is presented to test this hypothesis.

Table 7 presents a breakdown of the respondent's occupation by race and sex. Although unemployment is not a major issue in this study, a discussion of those respondents indicating unemployment will be presented.

There are no visible differences between the Negro and white respondents in the unemployed category--19.6 percent for each group. However, sex differences in unemployment are great. Among the females, both Negro and white respondents had a high percentage of unemployment; 35.5 and 56.5 percent respectively. The Negro males with 9.1 percent unemployed was slightly higher than the white males with 6.9 percent classified as unemployed. The high unemployment figures presented here among males, and

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<sup>24</sup>The presentation of tables throughout this section will vary from that which has been utilized thus far. In some cases the master table will be presented, designated by a whole number only. Smaller tables derived from the master will also be presented--designated by the whole number plus sub a, b, etc. (example 7a, 7b). In other cases, only the smaller table derived from the master table will be presented in the text. In these cases, the master table will be presented in the appendices.



TABLE 7

OCCUPATION BY RACE AND SEX

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
Unemployed	15	9.1	38	35.5	53	19.6	17	6.9	48	56.5	65	19.6	32	7.8	86	44.8	118	19.6
Unskilled	26	15.9	34	31.8	60	22.1	10	4.1	4	4.7	14	4.2	36	8.8	38	19.8	74	12.3
Semi-Skilled	50	30.5	8	7.5	58	21.4	30	12.2	5	5.9	35	10.6	80	19.5	13	6.8	93	15.4
Skilled	27	16.5	4	3.7	31	11.4	77	31.3	2	2.4	79	23.9	104	25.4	6	3.1	110	18.3
Clerical	21	12.8	10	9.3	31	11.4	21	8.5	15	17.6	36	10.9	42	10.2	25	13.0	67	11.1
Sales	4	2.4	3	2.8	7	2.6	13	5.3	1	1.2	14	4.2	17	4.1	4	2.1	21	3.5
Technical	0	0.0	0	0.0	00	0.0	10	4.1	0	0.0	10	3.0	10	2.4	0	0.0	10	1.7
Professional	7	4.3	6	5.6	13	4.8	12	4.9	6	7.1	18	5.4	19	4.6	12	6.3	31	5.1
Managerial	2	7.3	3	2.8	5	1.8	21	8.5	2	2.4	23	6.9	23	5.6	5	2.6	28	4.7
Other	12	7.3	1	.9	13	4.8	35	14.2	2	2.4	37	11.2	47	11.5	3	1.6	50	8.3
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0





the extremely high unemployment figures for females can be attributed to many factors. A primary factor is that no distinction was made in this study between those unemployed, those retired, and those voluntarily unemployed - not seeking work.

In the Tidewater area, there are many retired naval officers and enlisted men who are not employed. Among the females, there are those who are unmarried, widowed, or separated, who are unable to work because of children, and have to rely on welfare; women who are widows of navy men and have no financial need to seek employment; women who are or have been ill and are unable to work or cannot re-enter the labor market because of age (this applies to the men as well); and women who are not the primary breadwinners, hence are voluntarily unemployed.

Looking at the low occupational status categories (unskilled and semiskilled) in Tables 7a and 7b significant differences were found.

TABLE 7a  
LOW OCCUPATIONAL STATUS BY RACE

Occupational Status	Negro	White	Total
Unskilled	(35.9)* 60	(8.4) 14	(44.3) 74
Semiskilled	(34.7) 58	(21.0) 35	(55.7) 93
TOTAL	(70.7) 118	(29.3) 49	(100.0) 164

\*Percentages are presented in the parentheses.

$\chi^2=6.08$ ; significant at the .02 level of significance.

TABLE 7b

## LOW OCCUPATIONAL STATUS BY SEX

Occupational Status	Male	Female	Total
Unskilled	(21.6)* 36	(22.7) 38	(44.3) 74
Semiskilled	(47.9) 80	(7.8) 13	(55.7) 93
TOTAL	(69.5) 116	(30.5) 51	(100.0) 167

\*Percentages are presented in the parentheses.

$\chi^2=28.92$ ; significant at the .001 level of significance.

These differences support what was expected--that underutilization would vary according to race and sex. However, in the high occupational status categories (technical, professional, and managerial), although a percentage of whites indicated jobs here the differences were not significant at the .05 level using the Chi Square test.<sup>25</sup> (See Table 7c).

TABLE 7c

## HIGH OCCUPATIONAL STATUS BY RACE

Occupational Status	Negro	White	Total
Professional	(18.8)* 13	(40.6) 28	(59.4) 41
Managerial	(7.2) 5	(33.3) 23	(40.6) 28
TOTAL	(26.1) 18	(73.9) 51	(100.0) 69

\*Percentages are presented in the parentheses.

$\chi^2=1.01$ ; not significant at the .05 level of significance.

<sup>25</sup> Those respondents in the technical category are included in the professional category to enable the use of the  $\chi^2$  test.

TABLE 7d

## HIGH OCCUPATIONAL STATUS BY SEX

Occupational Status	Male	Female	Total
Professional	(42.0)* 29	(17.4) 12	(59.4) 41
Managerial	(33.3) 23	(7.2) 5	(40.6) 28
TOTAL	(75.4) 52	(24.6) 17	(100.0) 69

\*Percentages are presented in the parentheses.

$X^2=1.86$ ; not significant at the .05 level of significance.

Table 7d reveals similar finds for sex; a higher percentage of males than females holding high status occupations, but not significantly so. These findings point toward differences in underutilization according to race and sex in the low occupational status categories, but not to a significant degree in the high occupational categories.

In Table 8 the variable of age has been introduced along with race and sex, to see if age is a crucial factor explaining the underutilization of employees by occupation.

Within the unemployed category age is not a decisive variable explaining this phenomenon. Categorized by age the unemployed respondents were as follows: 38.1 percent in the 56 and over year category, 32.2 percent in the 36-55 year category, and 29.7 percent in the 16-35 year category. Looking at race and sex, only in the case of white men are large percentage differences seen--94.1 percent in the 56 and over year category and 5.9

TABLE 8

## OCCUPATION BY AGE, RACE, AND SEX

RANGE	-----NEGRO-----			-----WHITE-----			-----GRAND TOTAL-----											
	MEN	PERC	WOM	MEN	PERC	WOM	MEN	PERC	WOM	TOT	PERC	TOT	PERC					
<b>UNEMPLOYED</b>																		
16 to 35	7	46.7	15	39.5	22	41.5	1	5.9	12	25.0	13	20.0	8	25.0	27	31.4	35	29.7
36 to 55	6	40.0	12	31.6	18	34.0	0	0.0	20	41.7	20	30.8	6	18.8	32	37.2	38	32.2
56 and Over	2	13.3	11	28.9	13	24.5	16	94.1	16	33.3	32	49.2	18	56.3	27	31.4	45	38.1
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	15	12.7	38	32.2	53	44.9	17	14.4	48	40.7	65	55.1	32	27.1	86	72.9	118	100.0
<b>UNSKILLED</b>																		
16 to 35	8	30.8	6	17.6	14	23.3	5	50.0	2	50.0	7	50.0	13	36.1	8	21.1	21	28.4
36 to 55	16	61.5	19	55.9	35	58.3	2	20.0	2	50.0	4	28.6	18	50.0	21	55.3	39	52.7
56 and Over	2	7.7	9	26.5	11	18.3	3	30.0	0	0.0	3	21.4	5	13.9	9	23.7	14	18.9
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	26	35.1	34	45.9	60	81.1	10	13.5	4	5.4	14	18.9	36	48.6	38	51.4	74	100.0
<b>SEMI-SKILLED</b>																		
16 to 35	18	36.0	3	37.5	21	36.2	12	40.0	0	0.0	12	34.3	30	37.5	3	23.1	33	35.5
36 to 55	27	54.0	4	50.0	31	53.4	13	43.3	3	60.0	16	45.7	40	50.0	7	53.8	47	50.5
56 and Over	5	10.0	1	12.5	6	10.3	5	16.7	2	40.0	7	20.0	10	12.5	3	23.1	13	14.0
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	50	53.8	8	8.6	58	62.4	30	32.3	5	5.4	35	37.6	80	86.0	13	14.0	93	100.0
<b>SKILLED</b>																		
16 to 35	10	37.0	1	25.0	11	35.5	17	22.1	0	0.0	17	21.5	27	26.0	1	16.7	28	25.5
36 to 55	14	51.9	2	50.0	16	51.6	49	63.6	1	50.0	50	63.3	63	60.6	3	50.0	66	60.0
56 and Over	3	11.1	1	25.0	4	12.9	11	14.3	1	50.0	12	15.2	14	13.5	2	33.3	16	14.5
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>TOTAL</b>	27	24.5	4	3.6	31	38.2	77	70.0	2	11.8	79	71.8	104	94.5	6	5.5	110	100.0

TABLE 8--Continued

RANGE	-----NEGRO-----		-----WHITE-----		-----MEN-----		-----WOM-----		-----MEN-----		-----WOM-----		-----GRAND TOTAL-----					
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	MEN	PERC	WOM	PERC	TOT	PERC				
<b>CLERICAL</b>																		
16 to 35	12	57.1	5	50.0	17	54.8	6	28.6	8	53.3	14	38.9	18	42.9	13	52.0	31	46.3
36 to 55	7	33.3	4	40.0	11	35.5	10	47.6	2	13.3	12	33.3	17	40.5	6	24.0	23	34.3
56 and Over	2	9.5	1	10.0	3	9.7	5	23.8	5	33.3	10	27.8	7	16.7	6	24.0	13	19.4
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	21	31.3	10	14.9	31	46.3	21	31.3	15	22.4	36	53.7	42	62.7	25	37.3	67	100.0
<b>SALES</b>																		
16 to 35	3	75.0	1	33.3	4	57.1	4	30.8	0	0.0	4	28.6	7	41.2	1	25.0	8	38.1
36 to 55	1	25.0	1	33.3	2	28.6	7	53.8	1	100.0	8	57.1	8	47.1	2	50.0	10	47.6
56 and Over	0	0.0	1	33.3	1	14.3	2	15.4	0	0.0	2	14.3	2	11.8	1	25.0	3	14.3
Other Age	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	4	19.0	3	14.3	7	33.3	13	61.9	1	4.8	14	66.7	17	81.0	4	19.0	21	100.0
<b>TECHNICAL</b>																		
16 to 35																		
36 to 55																		
56 and Over																		
Other Age																		
TOTAL																		
<b>PROFESSIONAL</b>																		
16 to 35	3	42.9	4	66.7	7	53.8	5	41.7	5	83.3	10	55.6	8	42.1	9	75.0	17	54.8
36 to 55	2	28.6	2	33.3	4	30.8	4	33.3	1	16.7	5	27.8	6	31.6	3	25.0	9	29.0
56 and Over	1	14.3	0	0.0	1	7.7	3	25.0	0	0.0	3	16.7	4	21.1	0	0.0	4	12.9
Other Age	1	14.3	0	0.0	1	7.7	0	0.0	0	0.0	0	0.0	1	5.3	0	0.0	1	3.2
TOTAL	7	22.6	6	19.4	13	41.9	12	38.7	6	19.4	18	58.1	19	61.3	12	38.7	31	100.0

TABLE 8--Continued

RANGE	NEGRO			WHITE			GRAND TOTAL								
	MEN	PERC	TOT	MEN	PERC	TOT	MEN	PERC	TOT						
<b>MANAGERIAL</b>															
16 to 35	0	0.0	1	4	19.0	0	0.0	4	17.4	4	17.4	1	20.0	5	17.9
36 to 55	0	0.0	2	16	76.2	0	0.0	16	69.6	16	69.6	2	40.0	18	64.3
56 and Over	2	100.0	0	1	4.8	2	100.0	3	13.0	3	13.0	2	40.0	5	17.9
Other Age	0	0.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	2	7.1	3	21	75.0	2	7.1	23	82.1	23	82.1	5	17.9	28	100.0
<b>OTHER</b>															
16 to 35	3	25.0	1	14	40.0	0	0.0	14	37.8	17	36.2	1	33.3	18	36.0
36 to 55	6	50.0	0	18	51.4	0	0.0	18	48.6	24	51.1	0	0.0	24	48.0
56 and Over	3	25.0	0	3	8.6	2	100.0	5	13.5	6	12.8	2	66.7	8	16.0
Other Age	0	0.0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	12	24.0	1	35	70.0	2	4.0	37	74.0	46	94.0	3	6.0	50	100.0



percent in the 16-35 year category. From these findings it seems that race and sex are better indicators of unemployment than age.

The following Tables provide some support for the hypothesis. It was indicated in the orientation toward underutilization that age would be a factor. In Table 8a the unskilled and the semi-skilled are classified as low occupational status groups. Within the low occupational status group, combining age and race, a  $X^2$  of 3.016 was computed. This statistic was not significant at the .05 level; indicating no significant differences in the low occupational group.

TABLE 8a  
AGE OF LOW OCCUPATIONAL STATUS RESPONDENTS BY RACE

Age	Negro	White	Total
16 - 35	(21.0)* 35	(11.3) 19	(32.3) 54
36 - 55	(39.5) 66	(12.0) 20	(51.5) 86
56 and over	(10.1) 17	(6.0) 10	(16.2) 27
TOTAL	(70.7) 118	(29.3) 49	(100.0) 167

\*Percentages are presented in the parentheses.

$X^2=3.01$ ; not significant at the .05 level of significance.

Also, within the low occupational group age and sex were computed for differences. (See Table 8b). With a  $X^2$  of 5.25, which is not significant at the .05 level, no differences were found.



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TABLE 8b

AGE OF LOW OCCUPATIONAL STATUS RESPONDENTS BY SEX

Age	Male	Female	Total
16 - 35	(25.7)* 43	(6.6) 11	(32.3) 54
36 - 55	(34.7) 58	(16.8) 28	(51.5) 86
56 and over	(9.0) 15	(7.2) 12	(16.2) 27
TOTAL	(69.5) 116	(30.5) 51	(100.0) 167

\*Percentages are presented in the parentheses.

$X^2=5.25$ ; not significant at the .05 level of significance.

However, when the occupations were classified into a middle category (skilled, clerical, and sales) support for the hypothesis emerged. In Table 8c the middle status occupations are presented. Applying the Chi Square test, significant differences were found for age and race.

Introducing sex along with age significant differences were also found. A Chi Square of 7.77 was computed, which is significant at the .05 level. (See Table 8d.) The importance of these findings point to the fact that within Tidewater, Virginia there are not significant differences in underutilization between age groupings according to race and sex in the low occupational categories. However, in the middle occupational

TABLE 8c  
AGE OF MIDDLE OCCUPATIONAL RESPONDENTS BY RACE

Age	Negro	White	Total
16 - 35	(16.2)* 32	(17.7) 35	(33.8) 67
36 - 55	(14.6) 29	(35.4) 70	(50.0) 99
56 and over	(4.1) 8	(12.1) 24	(16.2) 32
TOTAL	(34.8) 69	(65.2) 129	(100.0) 198

\*Percentages are presented in the parentheses.

$\chi^2=6.69$ ; significant at the .05 level of significance.

TABLE 8d  
AGE OF MIDDLE OCCUPATIONAL STATUS RESPONDENTS  
BY SEX

Age	Male	Female	Total
16 - 35	(26.3)* 52	(7.6) 15	(33.8) 67
36 - 55	(44.4) 88	(5.6) 11	(50.0) 99
56 and over	(11.6) 23	(4.5) 9	(16.2) 32
TOTAL	(82.3) 163	(17.7) 35	(100.0) 198

\*Percentages are presented in the parentheses.

$\chi^2=7.77$ ; significant at the .05 level of significance.

categories significant differences were found. Also, combining technical, professional, and managerial occupations into high occupational status, significant differences were found. An interesting point here is that age has brought about a reversal in the findings. Taking occupational status along with race and sex alone, the significance differences were found within the low occupational status category, not the high occupational status category. Therefore, it seems that age is a crucial variable explaining underutilization.

In Table 8e, the number of respondents in high occupational status occupations in certain age categories according to race revealed significant differences between Negroes and whites ( $X^2=13.18$ ; which is significant at the .01 level.)

TABLE 8e  
AGE OF HIGH OCCUPATIONAL STATUS RESPONDENTS BY RACE

Age	Negro	White	Total
16 - 35	(11.8)* 8	(25.0) 17	(36.8) 25
36-55	(8.8) 6	(36.8) 25	(45.6) 31
56 and over	(4.4) 3	(13.2) 9	(17.6) 12
TOTAL	(25.0) 17	(75.0) 51	(100.0) 68

\*Percentages are presented in the parentheses.

$x^2=13.18$ ; significant at the .01 level of significance.

Table 8f shows that a higher percentage of males than females in each of the age categories indicated high status positions. However, these differences were not significant.

TABLE 8f  
AGE OF HIGH OCCUPATIONAL STATUS RESPONDENTS BY SEX

Age	Male	Female	Total
16 - 35	(22.1)* 15	(14.7) 10	(36.8) 25
36 - 55	(38.2) 26	(7.4) 5	(45.6) 31
56 and over	(14.7) 10	(2.9) 2	(17.6) 12
TOTAL	(75.0) 51	(25.0) 17	(100.0) 68

\*Percentages are presented in the parentheses.

$\chi^2=4.75$ , not significant at the .05 level of significance.

Table 9 gives the occupation and education of the workers included in this sample according to race and sex.<sup>26</sup> Those individuals in the unemployed category show that a large percentage are within the 13 to 16 year educational level (48 percent).

<sup>26</sup>The Chi Square test was not used because of the low N's in many of the cells. See Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Company, Inc. 1956), pp. 175-179.

This occurrence can be explained by again referring to those individuals who are included in this category--the retired, etc.

Within the unskilled category the largest percent (53.3) of the Negro respondents had from 7 to 12 years of education. For the white workers, the largest number (6) in the unskilled category had received between 13 and 16 years of education.<sup>27</sup> Negroes make up 81.1 percent of the unskilled workers, while whites constitute only 18.9 percent. Underutilization is most evident among Negro females, where 32.4 percent have received between 13 and 16 years of education. The semiskilled category reveals that the major percentage differences exist between the males and the females. The males with 86.0 percent and the females with only 14.0 percent exhibit large differences in employment in the semiskilled category. This difference seems to be affected little by race. As in the case of the unskilled respondents, a higher percentage fell within the 1 to 12 year educational level.

The skilled category substantiates the contention concerning the importance of education. Unlike the unskilled and the semiskilled categories, the 50 percent of workers with 13 to 16 years of education represents the highest percentage of any educational level. This trend, is maintained for all other occupational status levels. White workers (70 percent of which are male) constitute 71.8 percent of the skilled workers. This

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<sup>27</sup> See Hubert M. Blalock, Social Statistics (New York: McGraw-Hill Book Company, Inc., 1960). Blalock points out the danger of using percentages when the number of cases upon which the percentage is computed is small.

TABLE 9  
OCCUPATION AND EDUCATION BY RACE AND SEX

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
<b>UNEMPLOYED</b>																		
0 to 6	2	13.3	7	18.4	9	17.0	3	17.6	4	8.3	7	10.8	5	15.6	11	12.8	16	13.6
7 to 12	8	53.3	18	47.4	26	49.1	3	17.6	14	29.2	17	26.2	11	34.4	32	37.2	43	36.4
13 to 16	5	33.3	12	31.6	17	32.1	11	64.7	29	60.4	40	61.5	16	50.0	41	47.7	57	48.3
Over 16	0	0.0	1	2.6	1	1.9	0	0.0	1	2.1	1	1.5	0	0.0	2	2.3	2	1.7
TOTAL	15	12.7	38	32.2	53	44.9	17	14.4	48	40.7	65	55.1	32	27.1	86	72.9	118	100.0
<b>UNSKILLED</b>																		
0 to 6	3	11.5	7	20.6	10	16.7	2	20.0	0	0.0	2	14.3	5	13.9	7	18.4	12	16.2
7 to 12	16	61.5	16	47.1	32	53.3	2	20.0	4	100.0	6	42.9	18	50.0	20	52.6	38	51.4
13 to 16	6	23.1	11	32.4	17	28.3	6	60.0	0	0.0	6	42.9	12	33.3	11	28.9	23	31.1
Over 16	1	3.8	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0	1	2.8	0	0.0	1	1.4
TOTAL	26	35.1	34	45.9	60	81.1	10	13.5	4	5.4	14	18.9	36	48.6	38	51.4	74	100.0
<b>SEMI-SKILLED</b>																		
0 to 6	10	20.0	0	0.0	10	17.2	5	16.7	1	20.0	6	17.1	15	18.8	1	7.7	16	17.2
7 to 12	25	50.0	6	75.0	31	53.4	13	43.3	3	60.0	16	45.7	38	47.5	9	69.2	47	50.5
13 to 16	15	30.0	1	12.5	16	27.6	12	40.0	1	20.0	13	37.1	27	33.8	2	15.4	29	31.2
Over 16	0	0.0	1	12.5	1	1.7	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	1.1
TOTAL	50	53.8	8	8.6	58	62.4	30	32.3	5	5.4	35	37.6	80	86.0	13	14.0	03	100.0



TABLE 9--Continued

RANGE	-----NEGRO-----			-----WHITE-----			-----GRAND TOTAL-----												
	MEN	PERC	TOT	MEN	PERC	TOT	MEN	PERC	TOT										
<b>SKILLED</b>																			
0 to 6	4	14.8	0	0.0	4	12.9	7	8.9	11	10.6	0	0.0	11	10.0					
7 to 12	11	40.7	1	25.0	12	38.7	31	40.3	1	50.0	32	40.5	42	40.4					
13 to 16	12	44.4	3	75.0	15	48.4	39	50.6	1	50.0	40	50.6	51	49.0					
Over 16	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0					
TOTAL	27	24.5	4	3.6	31	28.2	77	70.0	2	1.8	79	71.8	104	94.5					
															6	5.5	110	100.0	
<b>CLERICAL</b>																			
0 to 6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
7 to 12	0	0.0	0	0.0	0	0.0	5	23.8	6	40.0	11	30.6	5	11.9	6	24.0	11	16.4	
13 to 16	21	100.0	10	100.0	31	100.0	16	76.2	9	60.0	25	69.4	37	88.1	19	76.0	56	83.6	
Over 16	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
TOTAL	21	31.3	10	14.9	31	46.3	21	31.3	15	22.4	36	53.7	42	62.7	25	37.3	67	100.0	
																			37
<b>SALES</b>																			
0 to 6	1	25.0	0	0.0	1	14.3	0	0.0	0	0.0	0	0.0	1	5.9	0	0.0	1	4.8	
7 to 12	1	25.0	1	33.3	2	28.6	1	7.7	0	0.0	1	7.1	2	11.8	1	25.0	3	14.3	
13 to 16	2	50.0	2	66.7	4	57.1	11	84.6	1	100.0	12	85.7	13	76.5	3	75.0	16	76.2	
Over 16	0	0.0	0	0.0	0	0.0	1	7.7	0	0.0	1	7.1	1	5.9	0	0.0	1	4.8	
TOTAL	4	19.0	3	14.3	7	33.3	13	61.9	1	4.8	14	66.7	17	61.0	4	19.0	21	100.0	

TABLE 9--Continued

RANGE	---NEGRO---		---WHITE---		---MEN		---WOM		---GRAND TOTAL---	
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	TOT	PERC
<b>TECHNICAL</b>										
0 to 6										
7 to 12					10	100.0			10	100.0
13 to 16										
Over 16					10	100.0			10	100.0
TOTAL										
<b>PROFESSIONAL</b>										
0 to 6	1	14.3	0	0.0	1	7.7			1	3.2
7 to 12	6	85.7	4	66.7	10	76.9	5	83.3	15	83.3
13 to 16	0	0.0	2	33.3	2	15.4	1	16.7	3	16.7
Over 16	7	22.6	6	19.4	13	41.9	6	19.4	18	58.1
TOTAL										
<b>MANAGERIAL</b>										
0 to 6										
7 to 12	2	100.0	1	33.3	3	60.0	1	50.0	1	4.3
13 to 16	0	0.0	2	66.7	2	40.0	0	0.0	19	82.6
Over 16	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	2	7.1	3	10.7	5	17.9	2	7.1	23	82.1
<b>OTHER</b>										
0 to 6	1	8.3	0	0.0	1	7.7			1	2.1
7 to 12	4	33.3	1	100.0	5	38.5	0	0.0	6	16.2
13 to 16	6	50.0	0	0.0	6	46.2	2	100.0	28	75.7
Over 16	1	8.3	0	0.0	1	7.7	0	0.0	3	8.1
TOTAL	12	24.0	1	2.0	13	26.0	2	4.0	37	74.0

is the opposite of the unskilled category where the largest percent were Negro workers. Only 5.5 percent of the skilled workers were female, indicating underutilization by race and sex within skilled jobs. Of those in the skilled occupations small differences are noticeable between the different groups and their educational levels.

Clerical and sales categories were almost entirely inhabited by individuals with 7-16 years of schooling. This lends further support to what was expected--the higher the occupational level the higher the educational requirements. The only exceptions were one Negro male with 0-6 years of education in a sales job, and one white male with over 16 years of education in a sales job. Along racial lines the total number of Negroes with clerical positions had from 13 to 16 years of education. Although a high proportion of white employees had from 13 to 16 years of education, some had less education. Only a few of the total amount of the workers sampled indicated sales positions; about one third of which were Negro. The largest group represented within this category was the white males, most of which (85.7 percent) had from 13 to 16 years of education.

The only group represented in the technical occupations were the 10 white males, all of whom had from 13 to 16 years of education. Professional and managerial occupations revealed that education was a major factor. This finding was to be expected. Within the professional occupations, 96.7 percent of the respondents indicated 13 years of education and beyond.

In both categories (professional and managerial) white males have the highest representation. However, the white males are also represented more in the higher educational categories. Therefore, as was mentioned earlier, since education is the major criterion for entrance into high status occupations, it is to be expected that those with the highest amount of education will be represented the most. However, reviewing Table 9 reveals that a higher percentage of Negroes than whites with high educational attainment are occupying low status occupations. This indicates that there are differences in occupations according to race. Race and sex differences are also present. Of the white females the largest group were concentrated within the clerical occupations. On the other hand, the largest concentration of Negro females were within the unskilled occupations.

#### Attitudes Toward Job<sup>28</sup>

The respondents were asked to indicate the things they liked best and liked least about their present job, among six selected items. Each individual had the alternative of choosing up to three items each for those best liked and least liked. The items selected were felt to be germane to indicating a general attitude toward one's job.

Table 10 reveals things liked best about the job according to race and sex. Looking at the total number of responses given, only small percentage differences can be seen between the six items. A higher percentage of the responses (21.3) given was in the 'kind of work' category. Fewer (9.9 percent)

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<sup>28</sup>Since the tables presented in this section do not meet the criterion of independence no statistical test will be computed. The discussion will be limited to percentages.

TABLE 10

THINGS LIKED BEST BY RACE AND SEX \*

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
PAY	59	14.2	25	12.4	84	13.6	115	15.9	13	8.3	128	14.5	174	15.3	38	10.6	212	14.2
HOURS	80	19.3	36	17.8	116	18.8	110	15.2	20	12.8	130	14.8	190	16.7	56	15.6	246	16.4
SHIFT	54	13.0	21	10.4	75	12.2	59	8.1	15	9.6	74	8.4	113	9.9	36	10.1	149	9.9
KIND OF WORK	80	19.3	39	19.3	119	19.3	168	23.2	32	20.5	200	22.7	248	21.8	71	19.8	319	21.3
SECURITY	58	14.0	17	8.4	75	12.2	128	17.7	17	10.9	145	16.5	186	16.3	34	9.5	220	14.7
FRINGE BENEFITS	55	13.3	12	5.9	67	10.9	98	13.5	8	5.1	106	12.0	153	13.4	20	5.6	173	11.5
OTHER	14	3.4	10	5.0	24	3.9	26	3.6	4	2.6	30	3.4	40	3.5	14	3.9	54	3.6
NO RESPONSE	15	3.6	42	20.8	57	9.2	21	2.9	47	30.1	68	7.7	36	3.2	89	24.9	125	8.3
TOTAL	415	27.7	202	13.5	617	41.2	725	48.4	156	10.4	881	58.8	1140	76.1	358	23.9	1498	100.0

\*This table based on choice of three.



of the responses were in the shift category--i.e., the hourly shift they are presently working. Little differences were found between number of hours worked (16.4 percent), job security (14.7 percent), pay (14.2 percent), and fringe benefits (11.5 percent). Interesting is the fact that a higher percentage of women (24.9 percent) than men (3.2 percent) failed to respond to this question. Any interpretation of this finding would have to be conjecture, for the reasons for such a difference is beyond the scope of this data. However, in an attempt to offer possibilities; one would be that men are more job oriented, hence more concerned about the different aspects of their occupation.

Whereas, a large percentage of female workers view their jobs as "necessary evils" in these cases one could expect less concern about specific items connected with the job.

Other than the 'no response' category, no big percentage differences in the responses were found. Of the Negro males a higher percent (19.3) of their responses indicated 'kind of work' and 'hours' as being the most liked aspect of their jobs. This was also true for Negro women--'kind of work' (19.3 percent) and 'hours' (17.8 percent). The responses of the white males with the highest percentages were 'kind of work' (23.2 percent) and 'security' (17.7 percent). 'Kind of work' (20.5 percent) also had the highest percentage of responses for white women, followed by 'hours' (12.8 percent). The lowest percentage of responses was Negro males 'shift', Negro females 'fringe benefits', white males 'shift', and white females 'fringe benefits.' Readily seen is the fact that this table reveals little or no differences within this sample concerning items liked most about present job.



Table 11 shows things liked least about one's present job. A comparison between Tables 10 and 11 reveals a much higher percentage of the total number of respondents refusing to answer the question concerning "things least liked" on one's present job than the question dealing with "things liked most." In Table 11, 25.3 percent of the males and 44.7 percent of the females refused to answer this question.<sup>29</sup>

Table 11 is not contradictory to Table 10; again we find a high degree of conformity among the responses concerning those least satisfied with. Within all groups 'pay' emerged with the highest percentage of responses--Negro males 23.1 percent, Negro females 17.2 percent, white males 17.5 percent, and white females 10.6 percent (for white females an identical 10.6 percent was recorded for 'fringe benefits'). The next highest percentages for all groups were 'fringe benefits.' Lower percentages were found in pretty much a uniform pattern among all groups. The major conclusion to be drawn here, is that there are not any large variations in attitudes toward one's job.

### Promotion

Another important factor in determining underutilization is whether or not an employee is promoted. The respondents were asked whether or not they had received a promotion on their present job.

Table 12 presents the number and percent receiving promotions according to race and sex. Again, as was found in the

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<sup>29</sup>In private conversation with the interviewers it was revealed that many of the respondents refused to answer this question. They felt, in many cases, that the information might be used against them, despite assurances of confidentiality by the interviewers.

TABLE 11

THINGS LIKED LEAST BY RACE AND SEX\*

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC						
PAY	59	23.1	26	17.2	85	20.9	62	17.5	11	10.6	73	15.9	121	19.9	37	14.5	158	18.3
HOURS	16	6.3	10	6.6	26	6.4	45	12.7	5	4.8	50	10.9	61	10.0	15	5.9	76	8.8
SHIFT	14	5.5	6	4.0	20	4.9	36	10.2	3	2.9	39	8.5	50	8.2	9	3.5	59	6.8
KIND OF WORK	23	9.0	11	7.3	34	8.4	12	3.4	3	2.9	15	3.3	35	5.7	14	5.5	49	5.7
SECURITY	27	10.6	15	9.9	42	10.3	35	9.9	7	6.7	42	9.2	62	10.2	22	8.6	84	9.7
FRINGE BENEFITS	33	12.9	19	12.6	52	12.8	45	12.7	11	10.6	56	12.2	78	12.8	30	11.8	108	12.5
OTHER	26	10.2	9	6.0	35	8.6	22	6.2	5	4.8	27	5.9	48	7.9	14	5.5	62	7.2
NO RESPONSE	57	22.4	55	36.4	112	27.6	97	27.4	59	56.7	156	34.1	154	25.3	114	44.7	268	31.0
TOTAL	255	29.5	151	17.5	406	47.0	354	41.0	104	12.0	458	53.0	609	70.5	255	29.5	864	100.0

\*This table based on choice of three.

TABLE 12

PROMOTION BY RACE AND SEX

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
HAVE ATTAINED PRO- MOTION	58	35.4	10	9.3	68	25.1	110	44.7	9	10.6	119	36.0	168	41.0	19	9.9	187	31.1
HAVE NOT ATTAINED PROMOTION	16	9.8	38	35.5	54	19.9	18	7.3	47	55.3	65	19.6	34	8.3	85	44.3	119	19.8
NO RESPONSE	90	54.9	59	55.1	149	55.0	118	48.0	29	34.1	147	44.4	208	50.7	88	45.8	296	49.2
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0

section dealing with "attitudes toward job", a large percentage (49.2) refused to answer this question. However, of the total number answering significant differences were found at the .001 ( $\chi^2=123.03$ ). Sex differences are very evident with 44.7 percent white males and 35.4 percent negro males receiving promotions to only 10.6 percent white females and 9.3 percent Negro females.

Table 13 attempts to explore age as a crucial variable in determining promotions. Within the orientation toward underutilization, presented earlier, it was pointed out that age was important. Those workers who were within the prime working years were expected to receive promotions faster--hence the more likely they would be utilized to a greater extent than older workers or young workers who were just entering the labor market. Education was felt to be a major factor inhibiting the young worker.<sup>30</sup>

It was found that significant differences existed between males, age levels and having received a promotion on one's present job ( $\chi^2=65.35$ ; significant at the .001 level). The same was true for females ( $\chi^2=31.72$ ; significant at the .001 level). Looking at race, age and having received a promotion; significant differences at the .001 level were found for both Negroes and whites.

Of those who had not received a promotion, some significant differences was found. Computing a Chi Square for male and age a significant difference was found at the .02 level

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<sup>30</sup> Because of the large number of 'no responses', the number in the cells were very small. It was felt that to include the variable of education would further reduce the size of "N" in the cells until the data was useless.

TABLE 13

## PROMOTION BY AGE, RACE, AND SEX

RANGE	NEGRO				WHITE				GRAND TOTAL									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC						
<b>HAVE ATTAINED PRO-</b>																		
<b>MOTION</b>																		
16 to 35	20	34.5	2	20.0	22	32.4	28	25.5	55	55.6	33	27.7	48	28.6	7	36.8	55	29.4
36 to 55	32	55.2	7	70.0	39	57.4	64	58.2	2	22.2	66	55.5	96	57.1	9	47.4	105	56.1
56 and Over	5	8.6	1	10.0	6	8.8	18	16.4	2	22.2	20	16.8	23	13.7	3	15.8	26	13.9
Other Age	1	1.7	0	0.0	1	1.5							1	.6	0	0.0	1	.5
TOTAL	58	31.0	10	5.3	68	36.4	110	58.8	9	4.8	119	63.6	168	89.8	19	10.2	187	100.0
<b>HAVE NOT ATTAINED</b>																		
<b>PROMOTION</b>																		
16 to 35	7	43.8	15	39.5	22	40.7	2	11.1	12	25.5	14	21.5	9	26.5	27	31.8	36	30.3
36 to 55	6	37.5	12	31.6	18	33.3	0	0.0	20	42.6	20	30.8	6	17.6	32	37.6	38	31.9
56 and Over	3	18.8	11	28.9	14	25.9	16	88.9	15	31.9	31	47.7	19	55.9	26	30.6	45	37.8
Other Age																		
TOTAL	16	13.4	38	31.9	54	45.4	18	15.1	47	39.5	65	53.6	34	28.6	85	71.4	119	100.0
<b>NO RESPONSE</b>																		
16 to 35	37	41.1	20	33.9	57	38.3	41	34.7	10	34.5	51	34.7	78	37.5	30	34.1	108	36.5
36 to 55	41	45.6	27	45.8	68	45.6	59	50.0	8	27.6	67	45.6	100	48.1	35	39.8	135	45.6
56 and Over	12	13.3	12	20.3	24	16.1	18	15.3	11	37.9	29	19.7	30	14.4	23	26.1	53	17.9
Other Age																		
TOTAL	90	30.4	59	19.9	149	50.3	118	39.9	29	9.8	147	49.7	208	70.3	88	29.7	296	100.0



( $X^2=7.98$ ). However, for women a significant difference was not found ( $X^2=.690$ ; not significant at the .05 level). Concerning race, age and not having received a promotion, no significant difference was found for Negroes ( $X^2=1.87$ ; not significant at the .05 level); however a significant difference was found for whites ( $X^2=7.38$ ; significant at the .05 level).

Therefore, partial proof has been found to support the hypothesis that promotions vary according to age, sex and race.

### Job Aspirations

Directly connected to any discussion concerning underutilization are the aspirations of the individuals employed. If the employees are satisfied with their present job and do not aspire toward better jobs, the chance of their reaching their full potential will be lessened--hence, a higher degree of underutilization can be expected.

Within the questionnaire, two questions were included to get at job aspirations. They were: 1) whether or not they feel they were trained for a better job, and 2) whether or not they aspire toward a better job.

Table 14 presents the findings concerning whether or not employees feel they are trained for a better job. Significant differences were found between those who feel they were trained for a better job and those who were not ( $X^2=266.32$ ; significant at the .001 level) according to sex. As was expected, of the total number of respondents answering this question 45.2 percent felt they were trained and 19.6 percent felt they were not. Sex differences were very evident with 56.8 percent of the males feeling they were better trained to 8.0 percent feeling not better trained, and 20.3 percent of the females feeling they



TABLE 14

EMPLOYEES FEEL TRAINED FOR BETTER JOB BY RACE AND SEX

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	TOT	PERC				
FEEL TRAINED FOR BETTER JOB	96	58.5	21	19.6	117	43.2	137	55.7	18	21.2	155	46.8	233	56.8	39	20.3	272	45.2
NOT TRAINED FOR BETTER JOB	15	9.1	38	35.5	53	19.6	18	7.3	47	55.3	65	19.6	33	8.0	85	44.3	118	19.6
NO RESPONSE	53	32.3	48	44.9	101	37.3	91	37.0	20	23.5	111	33.5	144	35.1	68	35.4	212	35.2
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0	410	68.1	192	31.9	602	100.0

were better trained to 44.3 feeling they were not.

Table 15 shows job aspiration according to race and sex. The largest percentage (23.8) of the total sample wished to retain their present jobs. A higher percent (30.2) of the white workers than the Negro workers (15.9 percent) were categorized here. It was pointed out earlier that a slightly higher percentage of the white workers held jobs in the skilled and higher occupational levels than the Negro workers. This could be an important factor in explaining the difference. Also, it was shown (Table 9) that in some lower occupational levels, a higher percentage of Negroes than whites had a greater amount of education. For instance, in the clerical category in Table 9 all the Negro respondents had education beyond high school, while some whites had less than a high school education. These factors are pointed out as possible explanations for the higher degree of job satisfaction among whites than Negroes.

A small percent (2.3) of the total sample aspired toward unskilled jobs.<sup>31</sup> For the entire sample, the following occupational levels were aspired toward the most: skilled 14.8 percent, professional 12.5 percent, clerical 10.8 percent, and managerial 9.0 percent. The inclusion of skilled and clerical occupations in those groups that had a high percentage aspiring toward them probably means that many of these respondents have realistic aspirations.

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<sup>31</sup>One reason for this is that anyone aspiring for a unskilled job would be aspiring down from a higher occupational level. This is because all the unskilled workers who aspired toward unskilled occupations were categorized as wishing to retain their present job.

TABLE 15  
JOB ASPIRATION BY RACE AND SEX

RANGE	-----NEGRO-----			-----WHITE-----			-----GRAND TOTAL-----					
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
RETAIN PRESENT JOB	26	15.9	17	15.9	43	15.9	76	30.9	24	28.2	100	30.2
UNSKILLED	5	3.0	7	6.5	12	4.4	2	.8	0	0.0	2	.6
SEMI-SKILLED	13	7.9	14	13.1	27	10.0	2	.8	4	4.7	6	1.8
SKILLED	41	25.0	5	4.7	46	17.0	41	16.7	2	2.4	43	13.0
CLERICAL	10	6.1	27	25.2	37	13.7	8	3.3	20	23.5	28	8.5
SALES	4	2.4	2	1.9	6	2.2	5	2.0	4	4.7	9	2.7
TECHNICAL	9	5.5	0	0.0	9	3.3	17	6.9	0	0.0	17	5.1
PROFESSIONAL	15	9.1	19	17.8	34	12.5	27	11.0	14	16.5	41	12.4
MANAGERIAL	16	9.8	2	1.9	18	6.6	31	12.6	5	5.9	36	10.9
OTHER	25	15.2	14	13.1	39	14.4	37	15.0	12	14.1	49	14.8
TOTAL	164	27.2	107	17.8	271	45.0	246	40.9	85	14.1	331	55.0
							410	68.1	192	31.9	602	100.0

Slocum in his book Occupational Careers throws some light on this finding and the finding that 23.8 percent of the workers are satisfied with their present jobs. He states, in relation to adult workers:

High occupational aspirations cannot be realistically sustained over a period of time without recognition and encouragement...even those who have achieved some success, tend to revise their aspirations downward.<sup>32</sup>

Here the major point being made is that the older the worker becomes the more his aspirations tend to be scaled down toward a more realistic goal. Slocum also points out:

Adult workers tend to become emotionally involved in whatever occupation they happen to be working at. This is reflected in reports that high proportions of workers prefer their current occupations and neither aspire nor expect to rise to a higher level occupation.<sup>33</sup>

Looking at Table 16, it can be seen that a higher percentage of those satisfied with their present job are beyond age 35 (85.3 percent). It is evident that there are occupational status differences according to age, race, and sex.

First, it is revealed that between the different occupational status categories, differences tend to vary. Little can be said about the differences between the unskilled and semi-skilled categories because of the small number in some categories. Of those who aspired toward semiskilled occupations, 81.8 percent were Negro, while only 18.2 percent were white. However, only small percentage differences existed between the

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<sup>32</sup>Slocum, Occupational Career, pp. 194-195.

<sup>33</sup>Ibid., p. 194.

TABLE 16

JOB ASPIRATION BY AGE, RACE, AND SEX

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC
<b>RETAIN PRESENT JOB</b>																		
16 to 35	3	11.5	2	11.8	5	11.6	12	15.8	4	16.7	16	16.0	15	14.7	6	14.6	21	14.7
36 to 55	18	69.2	8	47.1	26	60.5	37	48.7	7	29.2	44	44.0	55	53.9	15	36.6	70	49.0
56 and Over	5	19.2	7	41.2	12	27.9	27	35.5	13	54.2	40	40.0	32	31.4	20	48.8	52	36.4
Other Age																		
TOTAL	26	18.2	17	11.9	43	30.1	76	53.1	24	16.8	100	69.9	102	71.3	41	28.7	143	100.0
<b>UNSKILLED</b>																		
16 to 35	0	0.0	1	14.3	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0	1	14.3	1	7.1
36 to 55	4	80.0	3	42.9	7	58.3	1	50.0	0	0.0	1	50.0	5	71.4	3	42.9	8	57.1
56 and Over	1	20.0	3	42.9	4	33.3	1	50.0	0	0.0	1	50.0	2	28.6	3	42.9	5	35.7
Other Age																		
TOTAL	5	35.7	7	50.0	12	85.7	2	14.3	0	0.0	2	14.3	7	50.0	7	50.0	14	100.0
<b>SEMI-SKILLED</b>																		
16 to 35	1	7.7	4	28.6	5	18.5	2	100.0	0	0.0	2	33.3	3	20.0	4	22.2	7	21.2
36 to 55	8	61.5	8	57.1	16	59.3	0	0.0	2	50.0	2	33.3	8	53.3	10	55.6	18	54.5
56 and Over	4	30.8	2	14.3	6	22.2	0	0.0	2	50.0	2	33.3	4	26.7	4	22.2	8	24.2
Other Age																		
TOTAL	13	39.4	14	42.4	27	81.8	2	6.1	4	12.1	6	18.2	15	45.5	18	54.5	33	100.0



TABLE 16--Continued

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC						
<b>SKILLED</b>																		
16 to 35	21	51.2	1	20.0	22	47.8	16	39.0	1	50.0	17	39.5	37	45.1	2	28.6	39	43.8
36 to 55	16	39.0	3	60.0	19	41.3	22	53.7	1	50.0	23	53.5	38	46.3	4	57.1	42	47.2
56 and Over	4	9.8	1	20.0	5	10.9	3	7.3	0	0.0	3	7.0	7	8.5	1	14.3	8	9.0
Other Age																		
<b>TOTAL</b>	41	46.1	5	5.6	46	51.7	41	46.1	2	2.2	43	48.3	82	92.1	7	7.9	89	100.0
<b>CLERICAL</b>																		
16 to 35	6	60.0	17	63.0	23	62.2	2	25.0	9	45.0	11	39.3	8	44.4	26	55.3	34	52.3
36 to 55	4	40.0	5	18.5	9	24.3	4	50.0	7	35.0	11	39.3	8	44.4	12	25.5	20	30.8
56 and Over	0	0.0	5	18.5	5	13.5	2	25.0	4	20.0	6	21.4	2	11.1	9	19.1	11	16.9
Other Age																		
<b>TOTAL</b>	10	15.4	27	41.5	37	56.9	8	12.3	20	30.8	28	43.1	18	27.7	47	72.3	65	100.0
<b>SALES</b>																		
16 to 35	1	25.0	1	50.0	2	33.3	1	20.0	1	25.0	2	22.2	2	22.2	2	33.3	4	26.7
36 to 55	1	25.0	1	50.0	2	33.3	3	60.0	3	75.0	6	66.7	4	44.4	4	66.7	8	53.3
56 and Over	2	50.0	0	0.0	2	33.3	1	20.0	0	0.0	1	11.1	3	33.3	0	0.0	3	20.0
Other Age																		
<b>TOTAL</b>	4	26.7	2	13.3	6	40.0	5	33.3	4	26.7	9	60.0	9	60.0	6	40.0	15	100.0
<b>TECHNICAL</b>																		
16 to 35	5	55.6	8	55.6	5	55.6	8	47.1	8	47.1	8	47.1	13	50.0	13	50.0	13	50.0
36 to 55	4	44.4	4	44.4	4	44.4	7	41.2	7	41.2	7	41.2	11	42.3	11	42.3	11	42.3
56 and Over	9	34.6	9	34.6	9	34.6	2	11.8	2	11.8	2	11.8	2	7.7	2	7.7	2	7.7
Other Age																		
<b>TOTAL</b>	9	34.6	9	34.6	9	34.6	17	65.4	17	65.4	17	65.4	26	100.0	26	100.0	26	100.0



TABLE 16--Continued

RANGE	-----NEGRO-----				-----WHITE-----				-----GRAND TOTAL-----									
	MEN	PERC	WOM	PERC	TOT	PERC	MEN	PERC	WOM	PERC	TOT	PERC						
<b>PROFESSIONAL</b>																		
16 to 35	11	73.3	9	47.4	20	58.8	12	44.4	7	50.0	19	46.3	23	54.8	16	48.5	39	52.0
36 to 55	3	20.0	9	47.4	12	35.3	13	48.1	5	35.7	18	43.9	16	38.1	14	42.4	30	40.0
56 and Over	1	6.7	1	5.3	2	5.9	2	7.4	2	14.3	4	9.8	3	7.1	3	9.1	6	8.0
Other Age																		
TOTAL	15	20.0	19	25.3	34	45.3	27	36.0	14	18.7	41	54.7	42	56.0	33	44.0	75	100.0
<b>MANAGERIAL</b>																		
16 to 35	6	37.5	0	0.0	6	33.3	11	35.5	2	40.0	13	36.1	17	36.2	2	28.6	19	35.2
36 to 55	8	50.0	2	100.0	10	55.6	16	51.6	2	40.0	18	50.0	24	51.1	4	57.1	28	51.9
56 and Over	2	12.5	0	0.0	2	11.1	4	12.9	1	20.0	5	13.9	6	12.8	1	14.3	7	13.0
Other Age																		
TOTAL	16	29.6	2	3.7	18	33.3	31	57.4	5	9.3	36	66.7	47	87.0	7	13.0	54	100.0
<b>OTHER</b>																		
16 to 35	10	40.0	2	14.3	12	30.8	7	18.9	3	25.0	10	20.4	17	27.4	5	19.2	22	25.0
36 to 55	13	52.0	7	50.0	20	51.3	20	54.1	3	25.0	23	46.9	33	53.2	10	38.5	43	48.9
56 and Over	1	4.0	5	35.7	6	15.4	10	27.0	6	50.0	16	32.7	11	17.7	11	42.3	22	25.0
Other Age	1	4.0	0	0.0	1	2.6							1	1.6	0	0.0	1	1.1
TOTAL	25	28.4	14	15.9	39	44.3	37	42.0	12	13.6	49	55.7	62	70.5	26	29.5	88	100.0



sexes. This finding points to the possibility of race being a crucial variable in accounting for differences in aspirations toward semiskilled occupations.

The opposite exist among those aspiring for skilled occupations. Sex basically accounts for the differences and race shows little difference. Differences are also evident concerning age. A higher percentage of the 36-55 year category aspired toward semiskilled occupations, whereas, a higher percentage of the 16-35 year category aspired toward skilled occupations. In each case the lowest percentage of aspirants represented the 56 and over age group.

The clerical level also reveals sex differences--as was expected, 72.3 percent of the female respondents and only 27.7 percent of the male respondents aspired toward this level. Again the lowest percentage aspiring toward clerical positions are the 56 and over age group.

Little can be said concerning the sales and technical category. As Table 15 indicated, other than the unskilled category, fewer respondents aspired toward sales positions. The reason accounting for this can probably be explained through Ely Chinoy's viewpoint; that many semiskilled and skilled workers, not realizing the advances they had hoped for aspire toward owning their own small business.<sup>34</sup> Therefore, those interested

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<sup>34</sup>Ely Chinoy, "The Tradition of Opportunity and the Aspirations of Automobile Workers," American Journal of Sociology 57 (March, 1952), p. 459.

in the field of sales are probably interested only as proprietors. Only males aspired toward technical positions which is in keeping with the present occupations of the respondent--only males held technical positions.

Aspirations toward professional occupations show only slight percentage differences according to race and sex. Age differences tend to vary between the 16-35 and the 36-55 age groups according to race and sex. The 56 and over age group still has a smaller percentage of aspirants.

Large percentage differences exist according to race within the managerial category. Of those who aspire to managerial positions, 87 percent are males and 13 percent are females. Age differences exist with the 36-55 age group (51.9 percent) constituting the major group, followed by the 16-35 age group (35.2 percent), and the 56 and over age group (13.0 percent).

## SUMMARY AND CONCLUSIONS

The researcher often finds that the phenomenon under study is multifaceted. In the formulation of this study dealing with underutilization, the same problem was faced--underutilization - underemployment.

In looking at the underemployment facet of underutilization it was expected that underutilization existed in the Tidewater Area. The evidence gained from the study supports this expectation. Further supported is the expectation that underutilization varies according to race, age, sex, and education. More specifically, it was found that one's present occupational level was significantly affected by one's race, sex, age, and education. There were significant differences in the employment of respondents according to race and sex in low status occupations. However, in high status occupations significant differences were not found. A disproportionate number of Negroes were employed in the low status occupations, whereas, a smaller number of Negroes than whites were employed in high status occupations, but not significantly more. In the high status occupations, more white men than any other group was represented. When age was introduced, significant differences were not found in the low status occupations, however, in the middle and high status occupations significant differences were found.

A further explanation for the differences in occupations was found by looking at education. It was found that a disparity

exists, between Negroes and whites concerning educational attainment. On the average fewer Negroes than whites had attained a high educational level. However, an interesting finding was that of those Negroes with a high level of educational attainment, many were still on low status occupations. This was not found to be true for whites. The underutilization of Negro workers helps explain, to some degree, the low educational levels of many Negroes--the absence of an opportunity structure to obtain rewards.

Sex revealed similar findings--males had higher educational attainment than females, however, in the high status occupations little difference was found between Negro males and females in employment. On the other hand, white males were employed to a much greater extent than white females in high status occupations. Most of the white females occupied middle status occupations as clerical workers, and most of the Negro females were employed in low status occupations.

The findings indicate that white male workers are being utilized to the greatest extent in the Tidewater area. Negroes, both male and female are being underutilized to a great degree.

Attitudes toward one's job revealed little difference. Both race and sex revealed little--the only differences existed between males and females and those differences were small. Therefore, things least liked and things best liked about one's job tend to be similar regardless of race and/or sex.

(Sex differences were very evident in promotions). A smaller percentage of females than males had received promotions on their present job. This supports the expectation that female



workers are being underutilized. Slightly more white men than Negro men had received promotions, indicating some support for racial differences in underutilization.

Job satisfaction varied according to age and race. Within the different occupational status categories, job satisfaction tended to vary according to age, race, and sex. The amount of variation tended to vary among the different occupational status categories. Most satisfied with their present job were the white males. It will be remembered that the white males also had a higher percentage than any other group in the high occupational status category. A smaller percent of Negro workers than white workers felt satisfied with their present job. This can be looked upon as support for the expectation that Negro workers are underutilized to a greater extent than white workers. Sex differences existed among white workers only.

In concluding, it has been found that underutilization in the form of underemployment does exist within the Tidewater area. Most revealing was underutilization by race. An educational gap does exist between Negro and white workers, but those Negro workers who have attained a high educational level are not being utilized to the same extent as white workers. Evidence was found that white workers are being underutilized but to a lesser extent, than Negro workers. Sex and age also revealed differences.



A P P E N D I X

EMPLOYEE QUESTIONNAIRE  
MANPOWER RESEARCH INSTITUTE  
Norfolk State College

PERSONAL INFORMATION

Identifying Information

1. Name \_\_\_\_\_ Race \_\_\_\_\_ Nationality \_\_\_\_\_  
Age \_\_\_\_\_ Sex \_\_\_\_\_ Church Affiliation \_\_\_\_\_
2. Address \_\_\_\_\_  
Street \_\_\_\_\_ City \_\_\_\_\_  
Phone \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_

Marital Status

- Single     Married     Separated     Divorced     Widowed  
 Other (Specify) \_\_\_\_\_

Dependents

Number of Children \_\_\_\_\_ Relatives \_\_\_\_\_ Others \_\_\_\_\_ Total \_\_\_\_\_

Ages of Children:

- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  
   
17 18

Family Income

1. What is your total family income?  0 - \$3000 (Specify Amount)  
\_\_\_\_\_  \$3001 - \$5000     \$5001 - \$7000  
 \$7001 - \$9000     \$9001 - \$11,000     Above \$11,000 (Specify Amount)

2. Husband's Income: Regular Job \$\_\_\_\_\_ Other Job \$\_\_\_\_\_ Other Source \$\_\_\_\_\_
3. Wife's Income: Regular Job \$\_\_\_\_\_ Other Job \$\_\_\_\_\_ Other Source \$\_\_\_\_\_
4. Children's Income: Regular Job \$\_\_\_\_\_ Other Job \$\_\_\_\_\_ Other Source \$\_\_\_\_\_
5. Others' Income: Regular Job \$\_\_\_\_\_ Other Job \$\_\_\_\_\_ Other Source \$\_\_\_\_\_
6. Is your spouse employed?  Yes  No How Long?\_\_\_\_\_
7. What type of work is spouse doing?\_\_\_\_\_
8. Employers' Name and City\_\_\_\_\_

#### Home Ownership

Rent  Buy  Own  Other\_\_\_\_\_

#### Health

1. Does your health or physical condition:
- Keep you from working? Yes  No
  - Limit the kind of work you can do? Yes  No
  - Limit the amount of work you can do? Yes  No
2. If "yes" to any of above, in what way are you limited?\_\_\_\_\_
3. How long have you been limited this way?\_\_\_\_\_
4. How would you rate your health -- as Excellent, Good, Fair or Poor?
- Excellent  Good  Fair  Poor

## EDUCATION AND TRAINING

1-A. What is the highest grade of school you have ever attended?

Never Attended School

Elementary        
1 2 3 4 5 6

Junior High School     
7 8 9

High School     
10 11 12

College      
1 2 3 4

Beyond College: \_\_\_\_\_ Year Completed \_\_\_\_\_

B. Did you take a vocational or commercial curriculum in high school? Yes  No  Currently Enrolled

C. (If "yes") What training did you receive? \_\_\_\_\_  
\_\_\_\_\_

D. How long did this training last? \_\_\_\_\_ weeks \_\_\_\_\_ months  
\_\_\_\_\_ years

E. Do you use this training on your present job? Yes  No

2-A. Aside from regular school, did you ever take a program in business college or a technical institute such as draftsman, electronics training, etc.?

Yes  No  Currently Enrolled

B. Did you finish or complete this program? Yes  No

C. (If "yes") What type of training did you take? \_\_\_\_\_  
\_\_\_\_\_

D. How long did this training last? \_\_\_\_\_ weeks \_\_\_\_\_ months \_\_\_\_\_ years

E. Do you use this training on your present job? Yes  No

- 3-A. Aside from regular school, did you ever take a full time program lasting six weeks or more at a company school?  
Yes  No  Currently Enrolled
- B. Did you finish or complete this program? Yes  No
- C. (If "yes") What type of training did you take? \_\_\_\_\_  
\_\_\_\_\_
- D. How long did this training last? \_\_\_weeks \_\_\_months \_\_\_years
- E. Do you use this training on your present job? Yes  No
- 4-A. Aside from regular school, did you ever take a vocational training program in the armed forces?  
Yes  No  Currently Enrolled
- B. Did you finish or complete this program? Yes  No
- C. (If "yes") What type of training did you receive? \_\_\_\_\_  
\_\_\_\_\_
- D. How long did this training last? \_\_\_weeks \_\_\_months \_\_\_years
- E. Do you use this training on your present job? Yes  No
- 5-A. Aside from regular school, did you ever take any other vocational, technical or apprenticeship training, (not counting on-the-job training given informally)?  
Yes  No  Currently Enrolled
- B. Did you finish or complete this course? Yes  No
- C. (If "yes") What type of training did you take? \_\_\_\_\_  
\_\_\_\_\_

- D. How long did this training last? \_\_\_weeks \_\_\_months \_\_\_years
- E. Do you use this training on your present job? Yes  No
- 6-A. Since you stopped going to school full time, have you taken any additional general courses such as English, math, or science? Yes  No  Currently Enrolled
- B. Did you finish or complete this course? Yes  No
- C. (If "yes") What type of course did you take? \_\_\_\_\_  
\_\_\_\_\_
- D. How long did this training last? \_\_\_weeks \_\_\_months \_\_\_years
- E. Do you use this on your present job? Yes  No



## PRESENT EMPLOYMENT

1. What kind of work are you doing? \_\_\_\_\_
2. Employer's Name and City: \_\_\_\_\_
3. How did you get your present job?
 

<input type="checkbox"/> Virginia Employment Commission	<input type="checkbox"/> Advertisement
<input type="checkbox"/> Friends	<input type="checkbox"/> School Campus Re- cruiting
<input type="checkbox"/> Relatives	<input type="checkbox"/> Other - Specify
4. Are you using your previous training on your job? Yes  No
5. How long have you been working on this job? \_\_\_\_\_
6. During 1967, how many weeks did you work? \_\_\_\_\_
7. How many hours per week do you usually work? \_\_\_\_\_
8. How much do you earn on your present job? \_\_\_\_\_
9. Are you satisfied with the amount of pay you now get?  
Yes  No  If "no," why? \_\_\_\_\_
10. According to your needs, how much more do you need to make  
per year? \_\_\_\_\_
11. Is there much hope for making more right where you are now  
employed? Yes  No  If "no," Why? \_\_\_\_\_  
\_\_\_\_\_
12. In order to make more do you plan to:
 

<input type="checkbox"/> Work longer on the same job? If so, how much longer? _____
<input type="checkbox"/> Accept additional jobs? If so, what kind of jobs? _____
<input type="checkbox"/> Change jobs? If so, what job? _____
<input type="checkbox"/> Quit the present job and open some new business on your own? If so, what business? _____
<input type="checkbox"/> Other (Specify) _____

13. How do you feel about the job you now have?  
 Like it Very Much                       Dislike it Somewhat  
 Like it Fairly Well                       Dislike it Very Much
14. What are the things you like best about your job? (Try to obtain three)  Pay  Hours  Shift  Kind of Work  
 Security  Fringe Benefits  Other (Specify)\_\_\_\_\_
15. What are the things you dislike most about your job? (Try to obtain three)  Pay  Hours  Shift  
 Kind of Work  Security  Fringe Benefits  
 Other (Specify)\_\_\_\_\_
16. Do conditions on your present job keep you from doing your best work?  Yes  No What conditions?\_\_\_\_\_
17. Where you are now working, are you capable of doing a different type of job?  Yes  No What Job?\_\_\_\_\_
18. Does your present job represent a promotion?  Yes  No
19. (If "yes") What was this promotion? from\_\_\_\_\_to\_\_\_\_\_
20. When was this done?\_\_\_\_\_
21. (If "yes") Did the promotion provide:  
 Better Pay             Increased Responsibility  
 Progress Toward Another Promotion
22. (If "no") What do you think are the reasons you have not been promoted?\_\_\_\_\_
23. Could the lack of promotion be due to:  
 Race     Age  
 Sex     Other (Specify)\_\_\_\_\_
- Religion \_\_\_\_\_
24. Do you believe qualified women are denied promotion to managerial jobs? Yes  No  Why?\_\_\_\_\_

## PREVIOUS EMPLOYMENT

JOB A

1. What was the last full time job you held before the present job? Title: \_\_\_\_\_ What you did: \_\_\_\_\_
2. Name of Company and City: \_\_\_\_\_
3. When held? From \_\_\_\_\_ to \_\_\_\_\_ Pay: \_\_\_\_\_
4. Why did you stop working? \_\_\_\_\_
5. Where did you get training for this job? \_\_\_\_\_
6. Was this job a promotion?  Yes  No From \_\_\_\_\_ to \_\_\_\_\_

JOB B

1. What was the last full time job you held before the above job? Title: \_\_\_\_\_ What you did: \_\_\_\_\_
2. Name of Company and City: \_\_\_\_\_
3. When held? From \_\_\_\_\_ to \_\_\_\_\_ Pay \_\_\_\_\_
4. Why did you stop working? \_\_\_\_\_
5. Where did you get training for this job? \_\_\_\_\_
6. Was this job a promotion?  Yes  No From \_\_\_\_\_ to \_\_\_\_\_

JOB C

1. What was the last full time job you held before the above job? Title: \_\_\_\_\_ What you did: \_\_\_\_\_
2. Name of Company and City: \_\_\_\_\_
3. When held? From \_\_\_\_\_ to \_\_\_\_\_ Pay \_\_\_\_\_
4. Why did you stop working? \_\_\_\_\_
5. Where did you get training for this job? \_\_\_\_\_
6. Was this job a promotion?  Yes  No From \_\_\_\_\_ to \_\_\_\_\_

## EMPLOYMENT GOALS

1. If you had the opportunity to choose a particular job, what would this job be? \_\_\_\_\_
2. What pay would you expect? \_\_\_\_\_
3. Are you trained for this job? Yes  No  (If "no") Are you training for this job? Yes  No
4. What have you done to secure this better job? \_\_\_\_\_  
\_\_\_\_\_
5. Would you be willing to leave this area to secure this better job? Yes  No
6. Would you be willing to work under a female supervisor on this job? Yes  No  If "no", Why not? \_\_\_\_\_
7. Why do you think you have not had the opportunity to secure this job? \_\_\_\_\_  
\_\_\_\_\_

## INTERVIEWER'S EVALUATION

- |  |  |
|--|--|
| <input type="checkbox"/> Cooperative                     | <input type="checkbox"/> Disinterested |
| <input type="checkbox"/> Hostile                         | <input type="checkbox"/> Disgruntled   |
| <input type="checkbox"/> Other Attitudes: _____<br>_____ |  |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_

Length of Interview: \_\_\_\_\_ Name of Interviewer \_\_\_\_\_

## BIBLIOGRAPHY

- American Women. Report of the President's Commission on the Status of Women, 1963.
- Blalock, Hubert M. Social Statistics. New York: McGraw-Hill, Inc., 1960.
- Bogan, Forest A. and Perrella, Vera C. Monthly Labor Review. Vol. 90, No. 6, (February, 1968).
- Chinoy, Ely. "The Tradition of Opportunity and the Aspirations of Automobile Workers," American Journal of Sociology 57 (March, 1952).
- Dixon, Wilfred J. and Massey, Frank J., Jr. Introduction to Statistical Analysis. New York: McGraw-Hill Book Company, 1957.
- Edwards, Allen L. Statistical Methods. New York: Holt, Rinehart and Winston, Inc., 1967.
- Hamel, Harvey R. "Educational Attainment of Workers," Monthly Labor Review. Vol. 90, No. 6, (February, 1968).
- \_\_\_\_\_. "Educational Attainment of Workers," Monthly Labor Review. Vol. 91, No. 2, (February, 1968).
- Manpower Report of the President by the United States Department of Labor, (January, 1969).
- Massey, Frank J., Jr. and Dixon, Wilfred J. Introduction to Statistical Analysis. New York: McGraw-Hill Book Company, 1957.
- "Mobility and Worker Adaptation to Economic Change in the United States," Manpower Research, Bulletin No. 1, (July, 1963).
- Occupational Mobility of Employed Workers. Special Labor Force Report No. 84.
- Occupational Outlook Quarterly. U. S. Department of Labor, Vol. 10, No. 4, (December, 1966).
- Perrella, Vera C. and Bogan, Forest A. Monthly Labor Review, Vol. 87, No. 11, (November, 1964).
- Population Characteristics. Hampton, Virginia: City Planning Commission, (December, 1966).
- Projections and Economic Base Analysis. Newport News-Hampton Metropolitan Area. 67-6, (June, 1962). Governor's Office, Division of Planning.

Projections and Economic Base Analysis. Norfolk-Portsmouth Metropolitan Area. 67-5, (June, 1967). Governor's Office, Division of Planning.

Research, Statistics, and Information Division, Virginia Employment Commission. July 30, 1967.

Russell, Joe L. "The Negro's Occupational Progress," Occupational Outlook Quarterly, Vol. 10, No. 4, (December, 1966).

Siegel, Sidney. Nonparametric Statistics. New York: McGraw-Hill Book Company, Inc. 1956.

Slocum, Walter L. Occupational Careers. Chicago: Ill.: Aldine Publishing Company, 1966.

Social and Economic Conditions of Negroes in the United States. 1365 Report No. 332.

Tidewater Virginia Statistics. (Published by the Tidewater Virginia Development Council, Norfolk, Virginia, 1968).

"Unused Manpower: The Nation's Loss," Manpower Research. Bulletin No. 10, (November, 1965).

Utilization of Women Workers. (Reprint from the 1967 Manpower Report by the U. S. Department of Labor Women's Bureau.)