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6 LABOR MARKET ANALYSIS FOR EQUAL EMPLOYMENT OPPORTUNITY (EEO) PLANNING

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The development of numerical measures for Equal Employment Opportunity (EEO) policy analysis must include knowledge of the labor market external to an organization. In addition to comparisons with more general civilian labor force (CLF) data, comparisons are needed with the relevant labor force (RLF) data. The use of these measurements in connection with Title VII of the Civil Rights Act of 1964 touches on the most difficult and fundamental issues of EEO. This report concentrates on the computational issues of		

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estimating relevant external labor markets by race or national origin and sex (RNS) groups for the U.S. Navy civilian work force. Also included is an initial set of local and national RLF data for selected Navy U.S. civilian labor markets.

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FOREWORD

This research and development was conducted in response to Navy Decision Coordinating Paper Z1187-PN (Computer-based Manpower Planning and Programming) as a part of subproject PN.04 (Civilian Work Force Planning System) and was sponsored by the Deputy Chief of Naval Operations (OP-01). The objective of this subproject is to develop and implement manpower planning techniques that permit evaluation of tradeoffs among workload objectives and civilian personnel constraints (including EEO goals), as well as an accountability system for tracking the success of selected personnel strategies in terms of achieving workload and EEO objectives.

This report describes the computational methodology for estimating relevant external labor markets by race/national origin and sex groups as a key input to the development of EEO goals.

The work was accomplished under work request N68221-80-W-00053 issued by the Office of the Deputy Assistant Secretary of the Navy (Equal Opportunity). It was monitored by Murray Rowe.

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SUMMARY

Problem

The qualified and available or "relevant" labor force (RLF) provides a statistical ethnic/sexual profile against which an organization's personnel inventory can be compared to determine if discrimination exists in employment and personnel practices. Based on such comparisons, an organization can establish goals to remedy observed deficiencies for specific race and sex groups in specific job categories. Thus, a critical element in any equal employment opportunity (EEO) goal setting process is the determination of the qualified and available or relevant labor force, and the projection of that force into the future.

Objective

The objective of this effort was to develop a computational methodology for estimating RLFs by race/national origin and sex (RNS) groups as a key input to the development of EEO goals.

Approach

A computational methodology for estimating RLFs was developed based on the following factors: (1) geographic area, (2) occupational/educational attainment, (3) expected (or desired) wage, (4) RNS group representation, and (5) employment status.

Results

Based on the methodology developed, external labor market supply ratios for the Navy were projected for 1983. Such ratios reflect the proportion of persons of a specific RNS group qualified and available for a given "job" (e.g., GS 9-12 scientist). These supply ratios are then used in conjunction with an installation's projected workload, its current personnel inventory, and data on internal movements to generate EEO goals. (The goal determination step is outside the scope of this report.)

Future Direction

External labor market supply estimates will be improved by (1) considering regional recruitment areas, (2) examining the relationship between the external nonfederal labor market and the federal labor market, (3) incorporating general economic considerations, and (4) considering mobility patterns.

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INTRODUCTION

Background

The development of realistic equal employment opportunity (EEO) goals must consider factors related to both external and internal labor pools, as well as the workload requirements and management constraints associated with specific jobs. The U.S. Navy has been investigating methodologies to accommodate these factors since 1975. This investigation has resulted in a set of manpower planning techniques that permit tradeoffs among workload objectives and civilian personnel constraints (including EEO goals), as well as an accountability system for tracking the success of a selected personnel strategy in terms of achieving workload and EEO objectives (Charnes, Cooper, Lewis, & Niehaus, 1979; Niehaus & Nitterhouse, 1980). Recent efforts have focused on specifying realistic EEO goals based on an analysis of local, regional, and national labor markets.

Problem

The qualified and available or "relevant" labor force (RLF) provides the ethnic and sexual profile against which an organization's work force is compared to determine if discrimination exists in employment and personnel practices. Given the results of such a comparison, an organization can establish goals to reduce observed deficiencies for specific racial and sexual groups in selected job categories. Thus, a critical element in any EEO goal setting process is the calculation of the RLF and the projection of that force into the future.

Objective

The objective of this effort was to develop a computational methodology for estimating relevant external labor markets by race/national origin and sex groups as a key input to the development of EEO goals.

METHODOLOGY

The development of realistic Navy civilian EEO goals requires assessing labor markets both internal and external to the Navy. The purpose of external labor market analysis is to identify the number of individuals outside an organization that are qualified and available to take jobs that are offered. The basic building block of the Navy's analysis is a set of projections of the RLF by occupation, skill level or grade, race or national origin, and sex. This information is developed through a combination of local, regional, and national data.

The analysis of external labor markets matches jobs with people. The initial step in the process is to specify the key characteristics of jobs (in this case, those which are relevant to the Department of the Navy). Typical characteristics include the offered wage, and the hours, education, and experience required. Data on civilian populations outside the Navy are then evaluated to identify people who are "available" to undertake the prescribed work. In determining availability, some of the factors considered for the Navy were (1) geographic area, (2) occupational/educational attainment, (3) expected (or desired) wage, (4) RNS group representation, and (5) employment status.

Occupational and Pay Categories

The jobs are grouped into occupational and pay level categories. The initial version of the analysis uses major occupational groups that are consistent with the professional, administrative, technical, clerical (PATC), and other General Schedule (GS) groupings of the U.S. Office of Personnel Management (OPM). White collar jobs were initially categorized into one of six groups: scientists and engineers, other professional, administrative, technical, clerical, and others. However, since over 90 percent of the Navy's professionals (i.e., jobs normally requiring a bachelor's professional degree for entry) are scientists and engineers, the professional category was simply divided into (1) scientists and engineers and (2) other professionals. Blue collar jobs, comprising over 130,000 personnel, were categorized as either craftsman/operatives or gardeners/laborers.

Wage or pay levels were also clustered. For the white collar (GS) personnel, these groups and their pay ranges (as of October 1979) were: GS 1-4 (\$7,210-\$13,064), GS 5-8 (\$10,049-\$20,049), GS 9-12 (\$17,035-\$32,110), GS 13-15 (\$29,375-\$50,112), and GS 16-18 (\$47,889-\$50,112). Blue collar levels were grouped into apprentice, semiskilled, journeyman, leader, and supervisor categories with the prevailing local wages applying. For purposes of this analysis, the combination of an occupational category (e.g., craftsman) and a grade/pay category (e.g., apprentice) is called a "job." Because the pay levels for successive groups overlap, individuals could be considered for more than one "job." Thus, jobs are also characterized by a wage or salary "band." A craftsman and operatives apprentice job that pays a minimum of \$5.00 an hour and a maximum of \$9.00 an hour would have a wage band of \$5.00-\$9.00.

Geographic/Education Criteria

Geographic and educational criteria were also determined for each "job." These criteria established the educational requirements for the job and whether a national or local labor market was appropriate. As mentioned previously, the educational requirements for scientists and engineers and other professional jobs are a bachelor's or professional degree. The market's geographic area is national since OPM registers are national, the student bodies of many professional schools and universities are drawn from diverse areas, and recruiting by other public and private organizations is typically nationwide.

For administrative jobs, criteria change as one moves up the grade hierarchy. Thus, at the entry levels, the labor market is local or regional, depending on the type of administrative job involved. Educational requirements can also vary considerably because on-the-job experience can be substituted for formal education. The technical jobs involve essentially two different labor markets. At the lower grades, job content approaches that of a highly specialized professional drawn from a local labor market. This is particularly true for the Navy, since there are a considerable number of draftsmen, engineering technicians, and electronics technicians in Navy laboratories. Alternatively, higher grade technical personnel are predominantly managerial, representing a national labor market. The clerical labor market is locally oriented. "Other" occupations are a mixture of skills, the greatest proportion of which are firemen, guards, and police. In most cases, the labor market for these blue collar jobs is local.

Considerable effort was expended to define the geographic limits of local labor markets for each naval installation with over 200 civilian employees. The specification was of particular concern to the Navy since, in many cases, installations were concentrated at the edges of Standard Metropolitan Statistical Areas (SMSAs) or in isolated locations. The process required use of census district and county-level data vice the more

aggregate but less useful SMSA information. (For example, Mare Island Shipyard draws its work force from a combination of counties cutting across the Vallejo-Fairfield Napa and the San Francisco-Oakland SMSAs.) The extent of each local labor market was established by collecting a sample of new hire or accession data for 1978 by zip code. A minimum of 500 records was collected for each Navy local labor market. For local labor markets where there were significantly less than 500 new hires, a percentage (35%, 50%, or 100%, depending on required sample sizes) of the total Navy work force in an area was included in the data collection. Zip code data on 35,000 (13%) of the Navy's 280,000 U.S. civilian personnel were eventually collected.

The zip code data were then matched with the county-level census data to define the local labor markets. The matches were then reviewed using a Rand McNally Road Atlas coupled with a Department of Defense (DoD) map of major installations. Any anomalies in the local recruitment data were then corrected so that equidistant areas would be accorded equal treatment. For local jobs, such as the clerical and blue collar occupations, the recruitment area consistently dropped off at 15-20 miles. This distance factor may become even more of an indicator of the local labor market scope with the increases in commuting costs attributable to rising gasoline prices.¹ The current Navy local labor markets are listed in Appendix A. Table 1 indicates whether recruitment areas for jobs are local or national.

Table 1
Recruitment Areas for White and
Blue Collar Positions

Position	Level of Position				
	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18
White Collar					
Scientists and Engineers	-	National	National	National	National
Other Professional	-	National	National	National	National
Administrative	Local	Local	Local	National	National
Technical	Local	Local	Local	Local	-
Clerical	Local	Local	Local	-	-
Other	Local	Local	Local	-	-
Blue Collar		Helper & Semiskilled	Journeyman	Leader	Supervisor
Craftsmen and Operatives	Local	Local	Local	Local	Local
Gardeners and Laborers	-	Local	-	Local	Local

¹For a discussion of the successful use of applicant flow data in a discrimination suit, see Bloch and Pennington (1980).

In addition to zip code, occupation, and grade, data were collected on years of education and employment status at the time of hire. The education data are being used to evaluate the years of education normally required for a specific type of job. In nonprofessional jobs, no minimum educational requirements are set at the entry levels. This ensures that opportunities for entry into Navy employment exist for those with less than a high school education.

The data on employment status (full and part-time) at time of hire covers (1) unemployed, (2) employed, private sector, (3) employed, state or local government, (4) employed, federal government, and (5) not in the work force (i.e., in school, etc.). The employment status at time of hire data is also being used to estimate the percentage of Navy employees that were hired from within the federal work force (i.e., transfers or promotions from one federal or Navy activity to another Navy activity).

Identifying the Relevant Labor Market

Once the labor market for a particular job is geographically defined, the number of persons both qualified and available for that job must be determined. This relevant labor pool can be depicted as shown in Figure 1. The complete circle represents the civilian population of a labor market, with the part of the circle on the left representing the civilian labor force (CLF) as defined by the U.S. Labor Department. The rectangle indicates the relevant labor pools for a particular job category. The relevant labor pool of qualified and qualifiable applicants consists of (1) workers in comparable jobs, (2) unemployed and part-time workers in comparable jobs, and (3) persons not in the labor force, such as discouraged workers and persons with qualifiable skill who had jobs in the past 5 years. Those who are to be included in the relevant labor pool are identified using data from (1) the Public Use Sample (PUS) of the 1970 Census, (2) the 1976 HEW Survey of Income and Education (SIE), and (3) the 1978 Current Population Survey (CPS). (In 1981, these data sources will be replaced using the 1980 Census.)

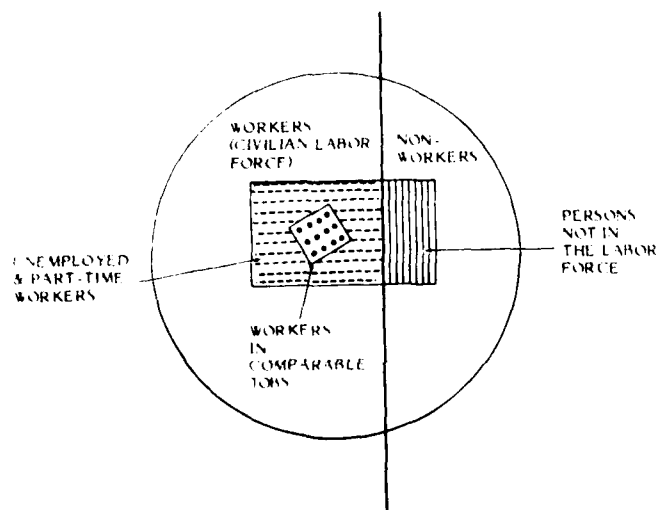


Figure 1. The relevant labor pool from the civilian population.

For those persons currently in the civilian labor force, the data on persons can be matched directly to the jobs using a simple sorting routine. Those persons not in the labor market (and, therefore, for whom no wage is observed) are nevertheless matched to jobs by a technique called "reservation wage analysis." This technique was developed in the 1930s by Robbins (1930) and more recently extended by researchers at the Rand Corporation and at various universities (Atwater, 1976; Cogan, 1976; Gronau, 1973 a,b; Hanoch, 1976; Hechman, 1974, 1978; and Kusters & Welch, 1972).

The Matching Process

The matching process to determine who is available for a specific Navy job uses three sorting criteria: a wage factor, an occupational skill/experience factor, and an education factor. Persons who meet all the criteria for a specific job are counted in the relevant labor force.

The sorting process is demonstrated in Figure 2. In the example, there are three individuals (Census IDs 305, 415, and 2012) and one job paying \$6.00-\$14.00 per hour and requiring 13 years of education (a college education with a background in science). All individuals are run through a decision table for the job, as shown in step II. In this case, Census ID 2012 is the only one who fits all the required match criteria. In an actual application, all persons in a given labor market are run against all jobs. The result is the establishment of the proportions of the "available" force by RNS groups for a specific set of jobs (see step III). If 500 persons are "available" for a Navy job and 100 are black females, then the proportion of black females would be 20 percent. The RNS proportions are used as measures for which internal manpower adjustments are made and minimum EEO goals are generated for each Navy job.

Other Wage Considerations

Several important considerations are associated with this method. The relevant labor pool includes current workers in comparable jobs, as well as persons who are unemployed, those who are employed part-time, and those who are not in the labor force (e.g., housewives and discouraged workers). No other known method uses a standard in which nonworkers are counted. Only persons who are institutionalized (in hospitals, penal institutions) or who are presently in school and persons under 16 or over 65 years of age are excluded from the matching process. Both workers and nonworkers are ultimately processed through the same three-step sorting sequence.

Workers who have earned wages that fall within a defined Navy job's wage band are said to be "wage available." For persons who are not currently working, an "expected" or reservation wage is estimated and used to match up with the Navy's offered wage band. The reservation wage is the minimum wage needed to attract a person to begin work in a defined job. The portion of nonworkers who will be available are those for whom the Navy job's wage exceeds their reservation wage. This calculation process is the key component that permits nonworkers to be considered in the matching process. The methodology assumes:

1. An employed person will not change jobs if what is perceived as the "expected wage" is less than he or she is earning.
2. An unemployed person will not take a job that offers a lower "expected wage" than the "value" of what he or she gives up (i.e., value of leisure) and expends by working.

I. Obtain the People Data

Census ID	Sex	Race/ Nat. Or.	Wage	Education	Occupation	Local Market
305	M	Black	\$ 5.50	13	Carpenter	Los Angeles
415	F	White	7.00	12	Housewife	Orange
2012	M	Oriental	12.00	16	Scientist	Riverside

II. Run the Process

Sort Criteria	Job Description	Individuals		
		#305	#415	#2012
Wage Sort	\$6.00-\$14.00	Yes	Yes	Yes
Education Sort	13	Yes	No	Yes
Occupation Sort	Scientist	No	---	Yes
Available		<u>No</u>	<u>No</u>	<u>Yes</u> (Count)

III. Obtain the Proportions

$$\text{RNS proportion}_i = \frac{\text{Available persons from RNS group } i}{\text{Total available persons from all RNS groups}}$$

Figure 2. Relevant labor force matching methodology.

The accuracy of analysis based on the reservation wage principle requires only that persons act as though they consciously calculate expected wages. The statistical procedure used is a refined version of regression analysis called "probit analysis."²

Both workers and nonworkers who meet the wage criteria are passed through the educational and occupational skill/experience sorts. Because wage bands, skill requirements, and educational factors are overlapping across Navy jobs, persons are often available for more than one specified job.

The labor market analysis also reflects projected FY83 changes in the availability of each RNS group in each identified labor market. This is accomplished by time-trending the characteristics that help explain availability (e.g., marital status, number and age of children, age) using 1970, 1974, 1976, and 1978 observed values. The projected characteristics for 1983 are then used as an additional observation in the probit estimation process. The result is projected availability rates (supply ratios) for 1983.

²The underlying mathematics of the Navy application of probit analysis is contained in Appendix A of Atwater, Niehaus, and Sheridan (1978).

In the analysis, both the existing work force as well as the new entrants must be used to make supply ratio calculations. For example, if women comprised 20 percent of the graduates in 1981 professional occupational areas (say 2,000 out of 10,000) and 10 percent (or 10,000/100,000) of the 1980 work force, then, everything else being equal, the RLF standards for 1981 would be 12,000/110,000 or 10.9 percent.

RESULTS

Based on the methodology described above, labor market supply ratios for the Department of the Navy were projected for 1983. An example of this data for scientists and engineers is presented in Table 2. It must be emphasized that these data are specific to Navy civilian jobs and may not apply to organizations with different occupational and wage distributions. The 1978 ratios are actual and the 1983 data are estimated using the previously described projected data. In this 5-year period, a strong shift towards minorities and women is anticipated. For example, in the GS 5-8 category, the availability of white males will shift on a proportionate basis--from 82.7 percent to 74.0 percent. All the other RNS categories are projected to increase substantially.

Similar shifts towards minorities and women can be seen in the local data. Table 3 provides the actual 1979 and projected 1983 local relevant labor force (RLF) for the San Diego Navy labor market. There, too, the dynamics of increased opportunities are beginning to be reflected in the composition of the work force.

Table 2

Projected Changes in Relevant Labor Market
(National) for Scientists and Engineers

Related Navy Job Category	Male					Female				
	Total	White	Male Black	Hisp.	Other ^a	Total	White	Female Black	Hisp.	Other ^a
Sci & Eng GS 5-8										
1978 Actual	91.9	82.7	1.5	1.2	6.5	8.3	6.5	1.2	0.0	0.6
1983 Projected	87.0	74.0	2.5	2.0	8.5	13.0	8.0	2.5	1.0	1.5
Sci & Eng GS 9-12										
1978 Actual	93.8	85.7	1.4	0.8	5.9	6.2	4.5	1.1	0.3	0.3
1983 Projected	90.2	78.8	2.1	1.9	7.4	9.8	5.5	2.1	1.2	1.0
Sci & Eng GS 13-15										
1978 Actual	97.9	89.4	2.1	0.0	6.4	2.1	2.1	0.0	0.0	0.0
1983 Projected	93.0	81.3	2.8	1.0	7.9	7.0	3.3	1.3	1.4	1.0

^aIncludes Orientals and American Indians.

Table 3

San Diego Local Labor Market Projected Relevant Labor Force General Schedule (White Collar)

Job	Male					Female					
	Total	White	Black	Hisp.	Other ^a	Total	White	Black	Hisp.	Other ^a	
Administrative:											
GS 1-4	1979	61.7	56.1	1.8	2.0	1.8	38.3	35.0	2.7	0.3	0.3
	1983	60.0	53.2	2.2	2.4	2.2	40.0	35.5	3.1	0.7	0.7
GS 5-8	1979	67.6	62.1	0.9	3.7	0.9	32.4	29.6	1.6	0.3	0.9
	1983	65.9	59.2	1.3	4.1	1.3	34.1	30.1	2.0	0.7	1.3
GS 9-12	1979	81.4	80.5	0.3	0.3	0.3	18.6	17.7	0.3	0.3	0.3
	1983	79.7	77.6	0.5	0.8	0.8	20.3	18.2	0.7	0.7	0.7
Technicians:											
GS 1-4	1979	41.6	33.9	2.7	2.5	2.5	58.4	47.6	5.8	2.5	2.5
	1983	39.4	30.2	3.2	3.0	3.0	60.6	48.3	6.3	3.0	3.0
GS 5-8	1979	39.4	34.1	0.3	2.5	2.5	60.6	50.1	5.5	2.5	2.5
	1983	36.4	29.6	0.8	3.0	3.0	63.6	51.6	6.0	3.0	3.0
GS 9-12	1979	56.2	55.3	0.3	0.3	0.3	43.8	40.5	0.3	2.7	0.3
	1983	54.5	52.4	0.7	0.7	0.7	45.5	41.0	0.7	3.1	0.7
Clerical:											
GS 1-4	1979	7.1	5.7	0.7	0.3	0.4	92.9	87.8	0.6	2.9	1.6
	1983	8.3	6.0	1.0	0.6	0.7	91.7	86.0	1.0	3.0	1.7
GS 5-8	1979	8.2	6.1	0.7	0.7	0.7	91.8	86.8	2.5	1.3	1.2
	1983	9.0	6.4	1.0	0.6	1.0	91.0	85.1	2.8	1.6	1.5
GS 9-12	1979	6.4	5.5	0.3	0.3	0.3	93.6	88.1	3.7	0.3	1.5
	1983	7.6	5.8	0.6	0.6	0.6	92.4	86.0	4.0	0.6	1.8
Other Gen. Sched.:											
GS 1-4	1979	94.8	77.6	12.5	4.2	0.5	5.2	4.3	0.3	0.3	0.3
	1983	92.8	74.1	13.0	4.7	1.0	7.2	4.8	0.8	0.8	0.8
GS 5-8	1979	96.1	87.1	5.5	3.0	0.5	3.9	2.7	0.4	0.4	0.4
	1983	94.5	84.2	6.0	3.4	0.9	5.5	3.1	0.8	0.8	0.8
Craft & Oper.:											
Appren- tice	1979	84.6	67.3	4.6	9.2	3.5	15.4	10.0	0.5	4.0	0.9
	1983	82.6	63.8	5.1	9.7	4.0	17.4	10.5	1.0	4.5	1.4
Semi- skilled	1979	85.6	71.8	3.3	8.1	2.4	14.4	11.2	0.4	2.1	0.7
	1983	83.6	68.3	3.8	8.6	2.9	16.4	11.7	0.9	2.6	1.2
Journey- Men	1979	86.3	79.6	1.7	3.3	1.7	13.7	10.6	0.8	2.0	0.3
	1983	84.3	76.1	2.2	3.8	2.2	15.7	11.1	1.3	2.5	0.8
Leader	1979	86.9	80.2	1.7	3.3	1.7	13.1	10.1	0.7	2.0	0.3
	1983	84.9	76.7	2.2	3.8	2.2	15.1	10.6	1.2	2.5	0.8
Super- visor	1979	89.6	82.9	1.7	3.3	1.7	10.4	7.6	0.5	2.0	0.3
	1983	87.6	79.4	2.2	3.8	2.2	12.4	8.1	1.0	2.5	0.8

Note: 1979 figures are actual and 1983 figures are projected.

^aIncludes Orientals and American Indians.

FUTURE DEVELOPMENTS

Several areas of technical concern are being addressed to improve the external labor market supply estimates. One is the consideration of regional recruitment areas. Examples of these would be markets for higher graded engineering technicians, midlevel administrative personnel, and highly skilled craftsmen. Collection of data and analysis of the demographic characteristics of these jobs is ongoing.

The relationship between the external nonfederal labor market and the federal labor market is also being studied. This is particularly important for upper level jobs since applicants generally come from federal agencies. ZIP code data will be used to obtain the percentages of new hires or accessions who come from the federal agencies. These data will then be combined on a proportionate basis with the external nonfederal supply ratios to obtain a better estimate of the Navy's external relevant labor force.

General economic considerations (such as the impact of unemployment, inflation, transportation, and housing costs) should also be incorporated. Studies are underway to project the impact of the above factors on changes in wages of different RNS groups as they relate to Navy jobs.

Finally, mobility patterns are a significant factor influencing the availability of workers. This applies to both the external and internal labor markets. Preliminary internal mobility studies indicate that minorities and women in nonprofessional Navy jobs are less mobile than are white males (i.e., they have lower observed quit rates) (Nitterhouse, 1979). Further study of this phenomenon and its relationship with external demographic mobility patterns is underway. This research involves coupling external demographic models with internal flow models as part of strategic manpower planning system.

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APPENDIX
LOCATIONS OF NAVY LOCAL LABOR MARKETS
FOR EEO RELEVANT LABOR FORCE ANALYSIS

Locations of Navy Local Labor Markets
for EEO Relevant Labor Force Analysis

<u>Principal City</u>	<u>State</u>
Charleston	South Carolina
Pensacola	Florida
Jacksonville	Florida
Cherry Point-Camp Lejeune	North Carolina
Louisville	Kentucky
Albany	Georgia
Orlando	Florida
Memphis	Tennessee
Beaufort-Parris Island	South Carolina
Key West	Florida
Panama City	Florida
Bay St. Louis	Mississippi
Pascagoula-Gulfport	Mississippi
Southeast Maine	Maine
Newport	Rhode Island
New London	Connecticut
Boston	Massachusetts
Crane	Indiana
Indianapolis	Indiana
Great Lakes	Illinois
Cleveland	Ohio
New Orleans	Louisiana
Corpus Christi	Texas
Dallas-Fort Worth	Texas
Bayonne (MSC LANT)	New Jersey
Long Island	New York
Lakehurst	New Jersey
Colts Neck	New Jersey
Trenton	New Jersey
New York	New York
Washington	District of Columbia
Norfolk	Virginia
Philadelphia	Pennsylvania
Mechanicsburg	Pennsylvania
Annapolis	Maryland
Patuxent River	Maryland
Yorktown	Virginia
Dahlgren	Virginia
North Philadelphia	Pennsylvania
Warminster-Willow Grove	Pennsylvania
Quantico	Virginia
Bremerton	Washington
Oak Harbor	Washington

Principal City

State

Seattle	Washington
San Diego	California
San Francisco-Alameda	California
Pearl Harbor	Hawaii
Vallejo	California
Long Beach	California
Port Hueneme	California
China Lake	California
Corona	California
San Mateo	California
San Bernadino	California
Oakland (MSC PAC)	California
San Jose	California
Monterey	California
Lemoore	California
Concord	California
Yuma	Arizona
Stockton	California
Fallon	Nevada
El Toro	California
Kansas City	Missouri

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