

## THE POSTCENSAL STUDY - DATA COLLECTION, PROCESSING AND TABULATING

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The Postcensal Study of Professional and Technical Manpower represents a major survey undertaking of the Bureau of the Census. There were various tasks involved covering a wide range of technical activities.

The major tasks associated with this project presently completed by the Bureau of the Census are as follows:

1. Design and printing of questionnaires and other forms.
2. A pretest covering 600 cases.
3. Sample selection of some 70,000 persons covering 45 specified professional and technical occupations and college-graduate groups from the 1960 Census of Population records.
4. Matching of selected sample cases to the 1960 Population Census schedules to obtain name and address for mailing purposes.
5. Mailing operation consisting of an original mail-out, follow-up as required by two reminder letters and, finally, a reminder letter under the National Science Foundation letterhead.
6. Independent subsampling of the two classes of nonresponses--  
(1) those returned by the post office as nondeliverable, and (2) those apparently delivered but not answered. The two groups were subsampled for further follow-up by, respectively, (1) addressing new questionnaires to the "postal rejects" in care of their employers (requiring a search and match of the 1960 Census of Population returns for "names of employers" and a directory search for the corresponding address) and (2) having the "non-answer" cases telephoned by Census Bureau enumerators in the areas covered by the Current Population Survey.
7. Manual editing and coding of the returned questionnaires.
8. Card punching the information (requiring six punch cards per case).

The following phases of the project remain to be implemented although much of the planning work has been completed:

1. Transfer of punch card data to computer tape.

2. Preparation of the computer tape record for each case and weighting of same.

3. Tallying the required tabulations.

Details of the various phases of the planning, implementation, and results are discussed in this paper.

Universe

Several major classes of people comprised the universe included in the survey. The largest class consisted of persons who were reported as being in the experienced civilian labor force in specified professional occupations in the 1960 Census. This included those who were employed in the specified occupations and those who were unemployed, but whose last job was in one of the selected occupations.

The original planning called for 33 professional occupations. Three of these were dropped before the survey was taken, whereas librarians were limited to those employed in public libraries, and elementary or secondary schools and sampled as separate groups. Thus there were 31 distinct professional categories in the survey. These are listed on table 1.

A second major class included in the survey comprised those persons in the "Experienced civilian labor force" in seven technical occupation groups. The occupations included were designers, draftsmen, surveyors, medical and dental technicians, electrical and electronic technicians, other engineering and physical sciences technicians, and technicians not elsewhere classified.

In addition to the two major classes of occupations listed above, the survey included a sample of persons who had completed four or more years of college. This last major class was subdivided into the following seven groups. The first three groups were in the labor reserve in 1960. The three labor reserve groups covered:

1. Female, ages 20 to 54 years, with experience in one of the selected professional or technical occupations.
2. Other persons with experience in one of the selected professional or technical occupations.
3. All persons in labor reserve with experience in occupations not selected for the survey.

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The persons in the "experienced civilian labor force" who were in occupations other than those selected for the survey were subdivided into the following three groups:

1. Managers, officials, and proprietors (not elsewhere classified) who were working in the following industries:

Agriculture, forestry and fisheries  
Mining  
Construction  
Manufacturing  
Transportation, communications,  
and other public utilities  
Entertainment and recreation  
services  
Professional and related services  
Public administration

2. Balance - Females, ages 20 to 54 years

3. All others

The remaining group consists of the remaining noninstitutional population, 20 years old and over not in the Armed Forces.

The complete list of 45 classes and the detailed components are outlined in table 1.

#### Design and printing of questionnaires and other forms

The original questionnaire was designed by the National Opinion Research Center. This questionnaire was reviewed for feasibility by the Bureau of the Census. These two organizations in consultation with the sponsoring agencies, developed the questionnaire that was used in the Census Bureau pretest.

The questionnaire used in the pretest consisted of eight pages divided into four sections. The first section dealt with current employment, asking questions on their present employment status, and, if working, on the respondent's occupation, industry, earnings, job activities, work attitudes, and the holding and nature of a second job.

The second section asked questions on the employment status as of April 1, 1960 (the date of the Decennial Census) and the respondent's first full-time job after reaching age 25 (an age where most persons had completed their formal education).

Section III inquired about the educational and training level of the respondent. It asked questions on the colleges attended, field of study, type of degree granted and year work was ended. This section also asked about the source of finances for their post-high school training and other types of training they may have received, such as company training programs, home study correspondence courses, and military training applicable to civilian occupations.

The last section requested background information such as age, sex, type of residence when growing up, marital status and number of dependents. An analysis of the results of the pretest questionnaire was the basis for re-designing the questionnaire. Most of the changes were in the format, but some changes were made in the items with several additions being made to the section IV on background information.

Three variations of the questionnaire were designed and used in the survey. The basic questionnaire was used for the selected professional occupations, and the three "experienced civilian labor force" classes. A variation of the basic questionnaire was used for the technicians. The major changes in this questionnaire were in the list of job activities, and the technicians were not asked work attitudes. A second variation of the questionnaire was used for the labor reserve and the last class of those not in the labor force nor the labor reserve. The major difference in this questionnaire was in the method of asking for past work experience.

A supplementary questionnaire was sent to a portion of the biologists and psychologists on sources of research support they may have received during their graduate studies.

#### Pretests

A feasibility pretest of this survey, covering 275 cases, was conducted in the Chicago area by the National Opinion Research Center. Another pretest was conducted by the Bureau of the Census beginning in the fall of 1961. Persons in professional and technical occupations used in this survey were selected from a special evaluation project file which provided the names and addresses of respondents. Approximately 600 cases were selected for the pretest. An original mailing was followed by two reminder mailings sent to the nonrespondents. The response rates of this pretest are given below.

	<u>Number</u>	<u>Responses</u>	
		<u>Number</u>	<u>Percent</u>
Total.....	591	419	70.9
Original mailing.....	591	254	43.0
First follow-up.....	445	116	26.1
Second follow-up.....	229	49	21.4

A subsample of the nonresponse cases, amounting to 51 cases, was drawn for further follow-up activity. This work consisted of a personal phone call reminder to the nonrespondent and produced 23 additional returns. Therefore the final number of completed questionnaires received in the pretest was 442 or 74.8 percent. (A figure quite similar to our results in the main study.)

These completed questionnaires were then analyzed and tabulated focusing on the problem of nonresponse by item and inconsistency between items. The result of this analysis was the final determinant in preparing the format and wording of the questionnaires.

#### Sample selection

The Bureau, in consultation with the sponsoring agencies, selected the sample for the survey. First, within the limits of financing and statistical reliability, the number of sample cases required for each occupation and other group in the universe was determined. (See col. 1 of table 2.) Estimates were made--since the universe counts were not yet available at the time--of the number of cases of each of these groups that would appear on the 1960 Census 25-percent sample tape file. These two figures provided the basis for determining a differential sampling ratio for each group to supply the required number of sample cases (col. 3). Since the basic universe was not known but had to be estimated, a very liberal sampling ratio was adopted to assure that a sufficient number of sampling cases would be selected from the Census 25-percent sample file. Using these sampling ratios, the first selection (and count of the total in each category) was made by the computer on a sample "every K case" basis. The computer identified and selected by the predetermined sampling ratio each category of the sample universe (shown in col. 4).

Revisions in the groups to be surveyed were also made. For example, pharmacists were deleted from the study and became the basis of a special project.

Such revisions in the groups were cause for increasing the number of sample cases required for certain of the remaining groups (col. 2). The revised number of sample cases required for the study was then compared to the first sample selection based upon the liberal sampling fraction. A division of these two figures for each group provided a subsampling fraction (col. 5). The computer then applied the subsampling fraction to the first sample selection and selected the final sample (col. 6). This was accomplished in the following manner. A random start between zero and the final sampling fraction was selected for each category. To this random start the sampling fraction (to five decimal places) was added for each case in the first sample selection. When this sum exceeded or equaled "one" the case thus identified was selected and the sum reduced by one. If the sum for the case did not equal or exceed "one" the case was not selected and the next addition was made.

The computer thus identified the sample cases and also selected for high-speed print-outs, pertinent data for the sample case,

providing a basis for searching original Census records for purposes of matching and name and address determination for mailing the questionnaires.

A subsample of 1,500 biologists and 1,000 psychologists was selected to receive the supplementary questionnaire on research support. These cases were selected by using a random start and every "n"th case thereafter. "n" was computed by dividing the number of cases selected to receive the supplementary questionnaire by the total number of cases in the survey with the specified occupational code.

#### Matching and mailing operations

When the sample was selected from the 1960 Census tapes, certain identification items were selected for each case and printed out on a listing. Some of the identification items used were the codes for State, county, enumeration district (ED), occupation, industry, age, and highest school grade completed. Each case was also assigned a control number. With this information the Census schedule books were searched to ascertain the name and address of the individual.

At the same time the names and addresses were being located, punch cards were being prepared for control purposes. These cards noted the control number, State, and a code indicating the type of questionnaire required. The name and address, as ascertained from the match of Census records, was also typed on the card. This typed address was reproduced by a Xerox process and used for the address labels. The card itself was used for check-in control (those not showing a notation of receipt of schedule being sent additional mailings as required).

Although there were 45 independent samples comprising the survey, they broke down into three major components for purposes of schedule design and into four separate groups for purposes of the mailing operation.

The mailing operation consisted of an original mailing and three follow-up mailings. Each mailing--the original and follow-up--was color coded by varying the color of the schedule. This was done primarily for control of the mail-out sequence. The mailouts were divided into four groups as determined by the respondents' status in the 1960 Census. The first group represented selected professional workers in the labor force (excluding 2,500 biological scientists and psychologists).

All biological scientists and psychologists were sorted from the professional group described above. A sample of about 1,500 biological scientists and 1,000 psychologists was then merged into one group. The portion of the biological scientists and psychologists not selected in the sample was returned to their original file.

Another group consists of those persons with technical occupations. The last group is composed of the labor reserve.

The mailing pieces to each of these groups consisted of (1) the respective questionnaire, (the biological scientists and psychologists also received a supplementary questionnaire), (2) an introductory letter, (3) a "Fields of Specialization List," (4) a return envelope.

#### Receipts

The endeavors described in the mailing operation elicited 51,505 completed questionnaires from the original panel of 71,300. The rate of receipt amounted to 72.2 percent. This figure compares favorably with our pretest experience where the return rate amounted to 70.9 percent.

Variations in the categories may be noted in table 1. (This table shows rates of receipt by each of the 45 classes.) For the professional group, the highest receipt rate was achieved, amounting to 72.6 percent, whereas the technical worker group--somewhat under the average return rate--amounted to 63.9 percent. Among the professional workers, it may be noted that the highest return rate is 82 percent (foresters and conservationists).

#### Field follow-up procedures

About 12,500 of the original cases did not respond to any of the four original mailings and constituted the "nonanswer" file of non-respondents. This group was sampled at approximately a 1 in 4 rate for personal follow-up. Thus about 3,000 cases required follow-up, all of which, by design, fell into Primary Sampling Units of the Bureau's Current Population Survey and thus an existing field staff was available to implement the procedure. The procedure called for all sample cases to be selected in the Bureau's central office and identified by their PSU number and other relevant information (name, address, phone number, appropriate schedule). This information was packaged along with required forms and instructions and sent to the Bureau's Regional Offices. The Regional Offices in turn transmitted the materials to the proper interviewers. The interviewers contacted each nonrespondent by telephone, asking them to complete a questionnaire. Those cases indicating cooperation were mailed one by the interviewer, along with a Regional Office return envelope. Those cases indicating a refusal to complete a questionnaire were asked eight basic questions on the phone.

When the interviewer completed this phase of the work, she sent a record of the results of her assignment to the Regional Office. The Regional Office matched the completed questionnaires received to the record of results. The unmatched forms for those who were mailed

questionnaires were returned to the interviewers, who again called the person and proceeded to ask the basic questions.

In regard to the "postal reject" file (that group never delivered by the post office), amounting to 7,100 cases, a sample of 1,000 random cases was drawn. A further attempt to locate these cases was made through their last known employer. Since the 1960 Census results provided the name of the employer, we had a basis for operation.

The steps required to implement this follow-up required a matching and searching of the original census record. After the case was located, the company name entered on the schedule was transcribed to a special listing. The address of the establishment was then obtained by checking through city directories and other reference material. The questionnaires were then mailed to the respondent in care of his employer using the normal mailing procedures with provision made for the follow-up mailings. These activities resulted in a return rate of about 30 percent.

#### Coding and editing of schedules

The processing work was accomplished by dividing the work into two major portions, namely "General Coding" and "Occupation and Industry Coding." The schedules were designed to minimize coding by annotating the entry boxes where possible with predetermined punching codes. Where this was not possible, as in the cases of "institution attended," "type of degree granted," "name of sponsoring institution," "subject of training," and "State and county of residence," codes had to be predetermined and, as in the case of "subject of training," a three-digit code was formulated and a special publication prepared noting the subject field content of each broad three-digit field. Also, during the "General Coding" phase, extensive editing rules were applied to the items to account for some blanks, obvious inconsistencies, consideration of fractions, improper placement of entries, dual entries, finding midpoints of ranges (if given), conversion of income entries to codable items, conversion of improper time basis to acceptable basis. Further editing of this nature will also be implemented in the computer.

The "Occupation and Industry Coding" phase of the work was done in accordance with the 1960 Census of Population classification scheme, with some minor modifications. All clerical work was verified completely on a dependent basis.

#### Preparing the record and weighting

Prior to tallying the tabulations in the Postcensal Study, certain programming activities are required to prepare the computer tape record.

Each questionnaire required six 80-column punch cards to accommodate the data. This information must first be transferred from punch cards to computer tape and the six cards for each case must be consolidated into a single record for a person (eliminating the duplication of identification items required on each punch card).

Each of the 45 occupations receives a differential weight. The methodology involved in this weighting calls for a consideration of the three following classes of responses:

1. Initial responses
2. Responses from a field follow-up program
3. Responses from a file of "postal rejects"

The latter two classes have to be weighted to the totals from which they are drawn.<sup>4/</sup> The determination of these weights will be done clerically and incorporated in the punch card. After these intermediate weights are on the record and are applied to the latter two classes, this file will be merged with the initial responses (class 1). The final weights to be applied to each occupation group would be the proportions these merged totals bear to their respective grand total as determined by the 1960 Census results.

#### FOOTNOTES

1/ For information on the classification of occupations in the 1960 Census, see U.S. Bureau of the Census, 1960 Census of Population, Alphabetical Index of Occupations and Industries, Revised Edition, Washington, D.C., 1960, and its companion volume U.S. Bureau of the Census, 1960 Census of Population, Classified Index of Occupations and Industries, Washington, D.C., 1960. For information on the definition of concepts used by the Bureau of the Census, see the text in the following reports: U.S. Census of Population: 1960, Detailed Characteristics, United States Summary, Final Report PC(1)-1D, Washington, D.C., 1963, and U.S. Census of Population: 1960, Occupational Characteristics, Final Report PC(2)-7A, Washington, D.C., 1963. The second report will be released in October of 1963.

2/ Professional nurses, pharmacists, and physicians and surgeons who were employed by any level of government, but not working in hospitals.

3/ In the 1960 Census the term labor reserve was used for those persons who had worked sometime during the period of 1950 to 1960, but were not in the labor force at the time of the census.

4/ The methodology outlined herein is subject to review of the reliability of the follow-up data by Bureau sampling experts.

Table 1.--DETAILED COMPONENTS OF THE UNIVERSE AND RECEIPTS IN THE POSTCENSAL STUDY OF PROFESSIONAL AND TECHNICAL MANPOWER

Occupations and other groups sampled	Number of cases in survey	Cases returned	
		Number	Percent
I. Occupations in the survey and their Census codes.....	71,300	51,505 <sup>1/</sup>	72.2 <sup>1/</sup>
A. Selected professional occupations.....	56,137	40,768	72.6
021 Chemists.....	2,500	1,839	73.6
College presidents, deans, and professors and instructors, nonscientific subjects...	1,260	905	71.8
030 College presidents and deans			
054 Professors and instructors, nonscientific subjects			
Professors and instructors, natural science.....	2,501	1,856	74.2
031 Professors and instructors, agricultural sciences			
032 Professors and instructors, biological sciences			
034 Professors and instructors, chemistry			
041 Professors and instructors, geology and geophysics			
042 Professors and instructors, mathematics			
043 Professors and instructors, medical sciences			
045 Professors and instructors, physics			
052 Professors and instructors, natural sciences, not elsewhere classified			
Professors and instructors, social science.....	1,494	1,155	77.3
035 Professors and instructors, economics			
050 Professors and instructors, psychology			
051 Professors and instructors, statistics			
053 Professors and instructors, social sciences, not elsewhere classified			
040 Professors and instructors, engineering.....	2,000	1,529	76.5
060 Professors and instructors, subject not specified.....	1,249	873	69.9
080 Engineers, aeronautical.....	1,999	1,383	69.2
081 Engineers, chemical.....	1,270	974	76.7
082 Engineers, civil.....	1,948	1,354	69.5
083 Engineers, electrical.....	3,499	2,533	72.4
084 Engineers, industrial.....	2,000	1,457	72.9
085 Engineers, mechanical.....	1,999	1,399	70.0
090 Engineers, metallurgical and metallurgists.....	1,000	726	72.6
091 Engineers, mining.....	1,000	708	70.8
092 Engineers, sales.....	1,000	682	68.2
093 Engineers, not elsewhere classified.....	2,782	1,971	70.8
103 Foresters and conservationists with 4 or more years of college.....	1,000	820	82.0

<sup>1/</sup> Figures include 966 cases received after the tally by occupation, thus detail will not add to total.

Table 1.--DETAILED COMPONENTS OF THE UNIVERSE AND RECEIPTS IN THE POSTCENSAL STUDY OF PROFESSIONAL AND TECHNICAL MANPOWER--Con.

Occupations and other groups sampled	Number of cases in survey	Cases returned	
		Number	Percent
111 Librarians - elementary and secondary schools).....	1,751	1,335	76.2
111 Librarians - public libraries.....)			
130 Agricultural scientists.....	1,991	1,494	75.0
131 Biological scientists.....	3,502	2,528	72.2
134 Geologists and geophysicists.....	2,000	1,351	67.6
135 Mathematicians.....	1,909	1,321	69.2
140 Physicists.....	2,295	1,714	74.7
145 Miscellaneous natural scientists.....	1,022	787	77.0
172 Economists.....	1,136	805	70.9
173 Psychologists.....	2,150	1,570	73.0
174 Statisticians and actuaries.....	1,000	716	71.6
175 Miscellaneous social scientists.....	878	613	69.8
182 Teachers, elementary schools (Public schools only).....	2,999	2,164	72.2
183 Teachers, secondary schools.....	3,003	2,206	73.5
B. Selected technical occupations.....	7,999	5,108	63.9
072 Designers.....	1,000	673	67.3
074 Draftsmen.....	1,000	701	70.1
181 Surveyors.....	1,000	587	58.7
185 Technicians, medical and dental.....	1,000	619	61.9
190 Technicians, electrical and electronic.....	999	636	63.6
191 Technicians, other engineering and physical sciences.....	2,000	1,274	63.7
192 Technicians, not elsewhere classified.....	1,000	618	61.8
II. Persons with an educational attainment of four or more years of college			
A. In experienced civilian labor force and not in the selected professional or technical occupations.....	2,948	1,903	64.6
1. Managers, officials, and proprietors (not elsewhere classified) who were working in the following industries.....	943	1,903	64.6
Agriculture, forestry and fisheries			
Mining			
Construction			
Manufacturing			
Transportation, communications, and other public utilities			
Professional and related services			
Public administration			
2. Balance - Females, ages 20 to 54 years)			
3. All others.....)	2,005		
B. Labor reserve.....	3,313	2,160	65.2
1. Females, ages 20 to 54 years, with experience in one of the selected professional or technical occupations.....	2,000	1,681	74.2
2. Other persons with experience in one of the selected professional or technical occupations.....	267		
3. All persons in the labor reserve with experience in occupations not selected for the survey.....	1,046	479	45.8
C. Persons 20 years old or older not in the labor force, labor reserve nor institutions.....	903	600	66.4

Table 2.--SAMPLE SELECTION FOR THE POSTCENSAL STUDY OF PROFESSIONAL AND TECHNICAL MANPOWER

Occupation or classification	(1) Original number of sample cases required	(2) Final number of sample cases required	(3) Original liberal sampling fraction	(4) Original sample count	(5) Sub- sampling ratio	(6) Final sample selected
Total in survey.....	73,000	76,869	-	152,510	-	71,300
Total professional occupations.....	55,000	59,869	-	90,774	-	56,137
Total college presidents, deans and professors.....	7,000	8,500	-	11,230	-	8,504
College presidents, deans, and professors and instructors, nonscientific subjects.....	1,000	1,250	1/4	2,465	0.50710	1,260
Professors and instructors, natural science.....	2,000	2,500	1/4	2,548	0.98117	2,501
Professors and instructors, social science.....	1,000	1,500	1/4	2,167	0.69221	1,494
Professors and instructors, engineering.....	2,000	2,000	1/1	2,359	0.84782	2,000
Professors and instructors, subject not specified.....	1,000	1,250	1/8	1,691	0.73921	1,249
Total engineers.....	18,000	20,282	-	32,654	-	18,497
Engineers, aeronautical.....	1,500	2,000	1/4	3,284	0.60902	1,999
Engineers, chemical.....	2,000	2,000	1/8	1,270	1.0	1,270
Engineers, civil.....	2,500	2,500	1/20	1,948	1.0	1,948
Engineers, electrical.....	2,500	3,500	1/10	4,618	0.75791	3,499
Engineers, industrial.....	2,000	2,000	1/8	3,095	0.64621	2,000
Engineers, mechanical.....	2,500	2,500	1/20	1,999	1.0	1,999
Engineers, metallurgical and metallurgist.....	1,000	1,000	1/2	2,305	0.43384	1,000
Engineers, mining.....	1,000	1,000	1/2	1,526	0.65531	1,000
Engineers, sales.....	1,000	1,000	1/2	7,170	0.13948	1,000
Engineers, not elsewhere classified.....	2,000	2,782	1/4	5,438	0.51159	2,782
Foresters and conservationists (4 years of college).....	1,000	1,000	1/1	2,936	0.34060	1,000
Librarians.....	2,000	2,000	1/4	5,250	4 yrs.college	1,751
Total natural scientists.....	16,000	16,800	-	19,237	-	15,219
Agricultural scientists.....	2,000	2,000	1/1	1,991	1.0	1,991
Biological scientists.....	4,000	4,000	1/1	3,502	1.0	3,502
Chemists.....	2,000	2,500	1/8	2,617	0.95530	2,500
Geologists and geophysicists.....	2,000	2,000	1/1	4,695	0.42599	2,000
Mathematicians.....	2,000	2,000	1/1	1,909	1.0	1,909
Physicists.....	2,000	2,300	1/1	3,501	0.65696	2,295
Miscellaneous natural scientists.....	2,000	2,000	1/1	1,022	1.0	1,022

Table 2.--SAMPLE SELECTION FOR THE POSTCENSAL STUDY OF PROFESSIONAL AND TECHNICAL MANPOWER--Con.

Occupation or classification	(1) Original number of sample cases required	(2) Final number of sample cases required	(3) Original liberal sampling fraction	(4) Original sample count	(5) Sub- sampling ratio	(6) Final sample selected
Total social scientists.....	5,000	5,287	-	10,080	-	5,164
Economists.....	1,000	1,137	1/1	4,814	0.23619	1,136
Psychologists.....	2,000	2,150	1/1	3,014	0.71334	2,150
Statisticians and actuaries.....	1,000	1,000	1/4	1,373	0.72834	1,000
Miscellaneous social scientists.....	1,000	1,000	1/1	879	1.0	878
Teachers, elementary public schools.....	3,000	3,000	1/50	4,197	0.71480	2,999
Teachers, secondary schools.....	3,000	3,000	1/25	5,190	0.57804	3,003
Total technicians.....	7,000	8,000	-	32,934	-	7,999
Designers.....	1,000	1,000	1/10	1,672	0.59809	1,000
Draftsmen.....	1,000	1,000	1/50	1,061	0.94251	1,000
Surveyors.....	1,000	1,000	1/5	2,291	0.43650	1,000
Technicians, medical and dental.....	1,000	1,000	1/20	1,734	0.57671	1,000
Technicians, electrical and electronic.....	1,000	1,000	1/1	23,176	0.04315	999
Technicians, other engineering and physical science..	1,000	2,000	1/10	4,684	0.42699	2,000
Technicians, not elsewhere classified.....	1,000	1,000	1/5	3,340	0.29941	1,000
Persons in "Other" groups with 4 years of college.....	11,000	9,000	-	23,778	-	7,164
Experienced civilian labor force not in target occupations.	3,000	3,000	-	16,522	-	2,948
Selected managers.....	1,000	1,000	1/100	943	1.0	943
Balance females ages 20 to 54.....	1,000	1,000	1/20	8,207	0.10309)	2,005
All others.....	1,000	1,000	1/100	7,373	0.13211)	
Labor reserve.....	5,000	4,000	-	6,353	-	3,313
Females ages 20 to 54 in target occupations.....	4,000	2,000	1/25	2,950	0.67797	2,000
All others in target occupations.....	1,000	1,000	1/100	267	1.0	267
Not in target occupations.....	-	1,000	-	3,136	0.33333	1,046
Persons 20 years old or over not in the labor force, labor reserve nor institutions.....	2,000	2,000	1/200	903	1.0	903