

CHANGES IN THE OCCUPATION AND INDUSTRY CLASSIFICATION SYSTEMS
BETWEEN THE 1960 AND 1970 CENSUS OF POPULATION

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I. INTRODUCTION

The world of work is of central concern in a person's life and the skills of its people a key to a country's development. The world of work comprises an extreme diversity of activities. The range of occupations extends from A. B. Seamen to Zoologist with 23,000 intervening discrete job titles in our Alphabetical Index of Industries and Occupations. To bring order and understanding to this extensive variety--to make it mentally manageable a system of classification or ordering is necessary. The simplest questions related to labor supply and demand, education, planning, and wage differentials require some systematic ordering of these information bits; thus the need for a classification system.

In recognition of this need for a systematic classification of occupations and industries the Federal Censuses have been developing classification systems in these fields since 1820. At the Census of 1820 the classification system comprised three major divisions, namely agriculture, commerce, and manufacturers. No occupational data were collected at the Census of 1830 but at the Census of 1840 the classification system had grown by over 100 percent constituting seven classes--mining; agriculture; commerce; manufacturers and trades; navigation of the ocean; navigation of canals, lakes, and rivers; and learned professions and engineers. The Census has been growing, changing, and adapting ever since.

It certainly was simpler to be a labor force analyst in the good old days. Whereas there were only three discrete "occupation" items in 1820, today there are three distinct classification systems--The occupational system comprising 441 items, the industrial system comprising 212 items, and the class of worker system comprising 6 items.

Although for historical and comparability purposes it is desirable to maintain consistency over time, the occupational data collected and presented in the several decennial censuses have seen changes introduced in the detail of occupation classification used. These changes are necessitated by a dynamic American economy--new industries, new methods, new occupations. The decade between 1960 and 1970 was no exception and many modifications were made.

These alterations are necessitated by a number of factors; Introduction of new jobs, change in work content, change in terminology, changes in schedule wording and enumeration techniques, and the general desire for improvement.

II. PURPOSE OF CHANGE

For the 1970 Census we had quite specific goals in mind in formulating our plans for the occupational classification system revisions. These were:

1. Reduction in the size of large categories.
2. More specificity relative to general categories.
3. More homogeneity among specific census

occupation categories.

4. Identification of new and significant occupations.
5. Feasibility of coding actual census responses to the proposed categories.
6. Increased accuracy of terminology in titles and content of categories.

In recognition of the desirability of maintaining historical comparability, constraining guidelines were followed: introduce no category shifts between major groups except where compelling reasons existed in situations of evident misclassification and to introduce no new major groups nor eliminate any if comparability were affected.

With these goals and restrictions in mind, an organized and systematic review was undertaken of the job titles comprising each of the 297 occupation categories of 1960. Each of approximately 25,000 job titles was examined to determine whether it was to remain in a particular category or be shifted to an existing category or be included among those titles comprising a newly established category.

III. REVISION MATERIALS

Several important tools were used in revising the 1960 system. Among them were the following:

(1) The 1960 Classified Index of Occupations and Industries. This volume presents the job titles comprising the occupation categories established for the 1960 Census and was of primary importance to the undertaking.

(2) The Current Population Survey (CPS). This survey and other sources were used in identifying new and emerging occupation titles.

(3) The unpublished CPS annual average figures of the detailed occupation distribution. These figures served to identify growth occupations.

(4) The Dictionary of Occupational Titles (DOT).

(5) A special cross-tabulation of a CPS panel coded in both Census and DOT terms.

(6) A 100,000 card sample of the 1960 census occupation entries. This sample of the experienced civilian labor force in the 1960 census contains industry, occupation, and class of worker codes, and selected demographic characteristics. The sample card also includes the written occupation and industry responses clerically transcribed from the 1960 census schedules. This arrangement permitted the study of the job title composition of each specific occupation code category in quantitative terms. Since the sample was representative of the 1960 census, the card deck also allowed for the calculation of estimates of the size of the various revisions. One major result of these exercises was an approximate 50 percent increase in the number of occupations over the 1960 system: 441 compared with 297.

A significant aspect of the improved ability to make these additional distinctions stems from the introduction of two supplementary probing items

for occupation in the 1970 census questionnaire.1/ The two probes ask for the major activities and job title in addition to "kind of work", providing more information for distinguishing the various occupations.

IV. DETAILED TYPES OF REVISIONS

A major effort was made to reduce the size and improve the identification of the "not elsewhere classified" (n.e.c.) categories, since some of these groups were too broadly descriptive and included a large number of workers. These categories were refined in the following fashion:

(1) New categories were established from components. For example, precision machine operatives were extracted from the "Operatives, n.e.c." and identified in four distinct occupations. In this fashion, 18 new occupation groups and large portions of four others were formed from the "Operatives, n.e.c." category. Moreover, a great number of job titles were shifted from this generalized group into more specifically identified categories.

(2) The "n.e.c." categories, where appropriate, were split among their integral components, i.e., generalized titles and minor occupations. For example, after extracting the significant and identifiable occupations and many job titles associated with existing occupations from the "Clerical workers, n.e.c." category, the remaining titles were assigned to two component categories: "Miscellaneous clerical workers," and "Not specified clerical workers."

(3) Many job titles were shifted about in order to improve the homogeneity of the occupation categories; for example, "impresario" was shifted from "Clerical workers (Agent, n.e.c.)" to "Managers and administrators." "Jailer" was moved from "Officials and administrators, n.e.c." to "Guards and watchmen."

In addition, three basic types of revisions were introduced:

(1) An existing category was separated into two or more new categories where the components were sufficiently large and occupationally distinctive. For example, "Automobile mechanics" was divided into two groups--"Automobile body repairmen" and "Automobile mechanics."

(2) In some cases, a portion of an existing category was subsumed by another category. For example, "marine engineers" was shifted from "ship officers" in "Managers" to "Mechanical engineers" in order to improve both categories in terms of uniform composition.

(3) Some categories were eliminated, and the components were placed elsewhere. For example, "Agents, n.e.c." represented a large heterogeneous "clerical" category in 1960. For 1970, all its component occupations were distributed to appropriate existing categories or newly established categories. In like manner, certain categories were combined in order to eliminate archaic or unnecessary divisions. For example, "Express messengers and railway mail clerks" was reclassified into two existing categories: "Railway mail clerks" were combined with "Postal clerks" and "Express messengers" with "Miscellaneous clerical workers." Another example, since "Baggage and cargo agents" were found to be doing like work as "Ticket, sta-

tion, and express agents", these groups were combined.

Other aspects of the detailed revision process concerned the elimination of residual industrial overtones persisting in the occupational system. For example, such job titles as "carpenters" and "bulldozer operators" were removed from "Mine operatives and laborers, n.e.c." and "Lumbermen, raftsmen, and wood choppers" and placed in their respective occupation categories.

The system also addresses itself to growth occupations during the decade. For example, the computer field is represented by five distinct occupations in 1970. (In 1960 there were none.) In like manner, social welfare, health, and educational services have experienced a sizeable expansion in separately identified occupations.

Other aspects of the revised system have to do with a more flexible approach to computer processing of the data.

One such innovation is the inclusion of an unique "allocation" code for each major group. "Not reported" cases are assigned to one of these categories by the computer, based upon selected reported demographic characteristics. This results in the elimination of the single line "Occupation not reported" category used in 1960.

The second major innovation is that greater use is made in 1970 of "tabulation categories" which generally have not been published in printed census reports but have been reserved for special reports. In most other instances they will be combined with other groups for census publications. For example, medical and legal secretaries have been set up as tabulation categories. Another illustration--it was deemed appropriate to count the "apprentice" categories of 1960 presented then as "Operatives" with their counterpart craft occupations. The reasons behind this move were:

(1) To be consistent with the treatment of "trainees" which were classified with the craft.

(2) To recognize the fact that many apprentices often work at a skill level equivalent to the journeymen.

(3) The imperfect census count of apprentices, since many of them do not report they are in an apprenticeship program and thus are classified as in the craft. In some special reports, however, apprentices will be separately identified.

A third innovation is the use of the computer to supplement the hand coding activities. For example, it was deemed desirable to separate the large heterogeneous category of 1960 "Salesmen, n.e.c." into sales representatives, sales clerks, and salesmen of services. An examination of the responses to the expanded occupation item from the Census Pretest Program indicated that the information provided was insufficient to make this separation. However, a close correlation exists between certain detailed industries and the various types of sales personnel; therefore, although the coders will continue to classify by one broad code, the computer will be used to refine this code into five groups based upon the detailed industry code.

Another extended application of the computer

capability was through computer edit of clerically assigned codes. For example, a new group "Restaurant, cafeteria, and bar managers" was established. This group was achieved by having the coders combine those clear-cut cases that are so designated verbally with those less specific entries that have an industry classification of "Eating and drinking places." That portion of this complex coding having to do with nonspecific manager entry coupled with the "Eating and drinking places" industry was then verified by computer to assure accuracy.

V. THE OCCUPATIONAL CLASSIFICATION SYSTEM

As noted, the new occupation system incorporates a sizable number of changes vis-à-vis the 1960 system. In general, many more detailed and more homogeneous categories were established: 441 compared with the 297 in 1960. For 1970, there are 12 major groups rather than the 11 of 1960. The new major group entitled "Transport equipment operatives" includes bus drivers, parking attendants, truck drivers, etc. The shift in categories comprising the new major group was confined to the 1960 major group "Operatives and kindred workers" to provide for historical comparability. A second revision (shown below) was the rearrangement of the major groups to reflect the traditional broad occupational areas--White collar workers, blue collar workers, farm workers, and service workers. The four worker divisions have been placed in their traditional sequence, but such sequence is not intended to imply that any division has a higher social or skill level than another.

1970 MAJOR OCCUPATION GROUPS

	Number of detailed categories comprising groups	
	1960	1970
White collar workers:		
Professional, technical, and kindred workers.....	84	124
Managers and administrators, except farm.....	13	24
Sales workers.....	9	15
Clerical and kindred workers..	28	48
Blue collar workers:		
Craftsmen and kindred workers.	61	96
Operatives, except transport..	53	54
Transport equipment operatives }		12
Laborers, except farm.....	10	16
Farm workers:		
Farmers and farm managers.....	2	3
Farm laborers and farm foremen	4	5
Service workers:		
Service workers, exc. private household.....	28	38
Private household workers.....	4	6

Finally, rather than having the detailed categories with each major group listed alphabetically subgroupings or "families" have been established in several major groups. For example, the "Service workers" group, to clarify its content, has been recast into five subgroupings: Cleaning service, food service, health service, personal service, and protective service workers.

In addition to these conceptual revisions

noted in the preceding statement, a great many detailed revisions were made to most of the 1960 categories having to do with sharpening homogeneity of the categories.

Quantification of the System

After placement of the job titles was completed, quantitative estimates of the 1970 classification changes were made for the 1960 experienced civilian labor force data published in the United States Census of Population: 1960. Detailed Characteristics, U.S. Summary. The following procedures were used to determine these levels.

The first step was to calculate on the basis of the 100,000 card sample (Item 6 of the source materials noted above) an estimate of the percent of a 1960 category which would be in a different category in the 1970 system. For each 1960 category then, cards containing job titles which were transferred to another category in the 1970 classification were counted separately for male and female. An adjustment percent was calculated individually for males and females by dividing the number of cards transferred to each 1970 category by the total number of cards in the 1960 category.

The second step was to apply these percents to the published data in the 1960 Detailed Characteristics, U.S. Summary table 201 to produce a numerical estimate of the change. For example, the 1960 category "lawyers and judges" was split into two distinct categories for 1970. There were 12 cards (male) for judges of the total 286 cards (male) in the category. Thus, judges formed 4.196 percent of the category. This percent was then applied to the 1960 total of 205,515 male "lawyers and judges" in the experienced civilian labor force to produce an estimate of 8,623 judges in 1960.2/

Table A presents the effect of the revisions at the major group level for the 1960 experienced civilian labor force.

The differences noted in Table A are the net result of changes across major occupational groups. The loss of a quarter million persons in the "Professional" category results mainly from the transfer of five categories out of the group. These were "School administrators", "Estimators and investigators", "Funeral directors", "Student nurses", and "Teacher's aides". A principle addition to the "Professional" major group was "craft teachers" added to "Adult education teachers" from "Craftsmen and kindred workers". Also, "not specified nurses" had been classified with "practical nurses", but our study indicated that many were more likely to be "registered nurses". Therefore, "not specified nurses" were moved to "Professional".

The addition of 218,000 "Managers and administrators" results mainly from the shifting of "School administrators" and "Funeral directors" out of "Professional" into this group, also important was the addition of titles from the "Agents, n.e.c." category in "clerical workers" to a number of "Manager" categories. Very little was moved out of this group.

The negligible decline in "Sales workers" (2,788) is accounted for by the removal of "Stock handlers" shifted to "Laborers, except farm". This was offset by a few smaller categories shift-

ed into this group, primarily from "Agents, n.e.c." and "Professional, n.e.c.".

Table A.—SUMMARY OF CHANGES AMONG
MAJOR OCCUPATION GROUPS - 1960 TO 1970
(1960 Experienced Civilian Labor Force)

MAJOR OCCUPATION GROUPS	TOTAL		
	1970 Classifi- cation System	1960 Classifi- cation System	Difference
EXPERIENCED CIVILIAN LABOR FORCE	67,990,073	67,990,073	-
PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS	7,089,840	7,335,699	- 245,859
MANAGERS AND ADMINISTRATORS, EXCEPT FARM	5,708,247	5,489,489	+ 218,758
SALES WORKERS	4,798,553	4,801,341	- 2,788
CLERICAL AND KINDRED WORKERS	9,431,106	9,617,487	- 186,381
CRAFTSMEN AND KINDRED WORKERS	9,465,311	9,240,983	+ 224,328
OPERATIVES, EXCEPT TRANSPORT	9,580,810	12,846,044	- 591,764
TRANSPORT EQUIPMENT OPERATIVES	2,673,470		
LABORERS, EXCEPT FARM	3,755,237	3,530,022	+ 225,215
FARMERS AND FARM MANAGERS	2,527,755	2,525,907	+ 1,848
FARM LABORERS AND FARM FOREMEN	1,604,235	1,559,524	+ 44,711
SERVICE WORKERS, EXCEPT PRIVATE HOUSEHOLD	6,085,582	5,765,481	+ 320,101
PRIVATE HOUSEHOLD WORKERS	1,816,648	1,824,817	- 8,169
OCCUPATION NOT REPORTED	3,453,279	3,453,279	-

The decline of 186,000 in the "Clerical" group is due primarily to the breaking up and shifting out of such miscellaneous catchalls as "Agents, n.e.c." and "Clerical, n.e.c.". The major addition was the "Estimators and investigators" moved from "Professional".

The increase of 224,000 among the "Craftsmen" is largely accounted for by the shifting into the group of "Furniture and wood finishers" "caterpillar drivers operators", "Power station operators" and numerous job titles from "Operatives, n.e.c.".

The "Operatives" group declined by close to 600,000 and principally responsible for this shift was the loss of the additions to "Craftsmen" noted above; and work activities other than operatives in the "Mine operative" group, e.g., laborers and material handlers. Added to "Checkers, examiners, and inspectors; manufacturing" in the "Operatives" group were the "checkers and examiners" from "Clerical, n.e.c.". Also added to "Operatives" were "garage laborers" so as to be combined with "gas station attendants" and "sawyers" from "lumbermen". In addition the "Operative" group was divided in two--splitting out "transport equipment operatives".

The "Laborers, except farm" group was enlarged by 225,215. This is largely accounted for by "material handlers", "mine laborers", and certain other "n.e.c." titles from "Operatives". Other changes such as "sackers" from "Sales workers" to "Stock handlers" and the entire group of "Stock handlers" from "Operatives" to "Laborers" played a significant role. The "Farm workers" group saw little change. The increase of 320,000 in the "Service workers, except private household" group is caused by the shift there from "Craftsmen" of the "maintenance men", "medical and dental aides and assistants" from "Clerical", and "student nurses" and other "medical aides" from "Professional".

Table B quantifies all the shifts among the major groups. Table A provided the net shift for each major group. This net figure may be derived from Table B by subtraction of boxhead from stub line for corresponding groups and the table also charts the flow of changes of the '60 and '70 Classification System.

Table B.—SHIFTS AMONG MAJOR GROUPS BETWEEN 1960 AND 1970 OCCUPATION CLASSIFICATION SYSTEM
(1960 Experienced Civilian Labor Force)

1970 major group gains	Total	1960 major group losses										
		Professional, technical, and kindred workers	Managers, officials, and proprietors, except farm	Sales workers	Clerical and kindred workers	Craftsmen, foremen, and kindred workers	Operatives and kindred workers	Laborers, except farm and mine	Farm and farm managers	Farm laborers and foremen	Service workers except private household	Private household workers
Total.....	1,837,406	-350,556	-26,897	-61,867	-260,354	-206,158	-748,432	-115,277	-1,496	-	-58,200	-8,169
Professional, technical, and kindred workers.....	+104,697	-	10,713	-	30,660	16,893	4,241	-	-	-	42,190	-
Managers and administrators, except farm.....	+245,655	178,112	-	-	64,132	674	-	2,737	-	-	-	-
Sales workers.....	+59,079	17,689	1,598	-	39,792	-	-	-	-	-	-	-
Clerical and kindred workers...	+73,973	49,845	2,851	6,570	-	-	12,981	-	-	-	1,726	-
Craftsmen and kindred workers..	+430,486	20,753	672	-	-	-	395,128	13,933	-	-	-	-
Operatives, except transport...	+148,679	-	58	-	37,596	42,030	-	67,028	-	-	1,967	-
Transport equipment operatives.	+7,989	-	-	-	5,226	1,457	-	1,306	-	-	-	-
Laborers, except farm.....	+340,492	3,466	2,208	55,297	11,855	2,754	251,079	-	1,496	-	12,317	-
Farm and farm managers.....	+3,344	-	-	-	-	-	3,344	-	-	-	-	-
Farm laborers and farm foremen.	+44,711	-	-	-	-	-	44,075	636	-	-	-	-
Service workers, except private household.....	+378,301	80,691	8,797	-	71,073	142,350	37,584	29,637	-	-	-	8,169
Private household workers.....	-	-	-	-	-	-	-	-	-	-	-	-

VI. THE INDUSTRIAL CLASSIFICATION SYSTEM

The 1970 industrial classification system is patterned after the 1967 Standard Industrial Classification (SIC) established by the Office of Management and Budget. The revised Census classification contains 227 categories as opposed to 150 in 1960; again, like the occupation system about a 50 percent increase in detail. Most of the changes have resulted in establishing smaller, more homogeneous groups from larger groups. A major classification revision which was made had to do with the transfer of government welfare activities to "Welfare services" in the major group "Professional and related services" from "Public administration".

Although the Census system is developed from the Standard Industrial Classification, there is one difference which should be noted. In the 1967 SIC, all government workers are classified under a "government division" by level of government regardless of their activities. Within each level of government the SIC is further classified by industrial activity. One of these industrial activities is "regular government function--executive, legislative, and judicial". The Population Census, on the other hand, classifies all like industrial activity together without regard to government ownership. This classification system includes a major group "Public administration" which can be equated to the "regular government functions" category in the SIC. The Population Census identifies government ownership, by level of government, in its class of worker item. For example, the SIC would classify a person employed by the highway construction activity of the State highway department primarily as State government, and secondarily as "general contractor, except building". The Census would classify the person in the "general contractor, except building" industry, and identify the State government ownership in the independent class of worker item. It should be noted that the 1972 edition of the SIC has revised its system to eliminate the government primary sort. The following sources were used in revising the system:

1. The Standard Industrial Classification (1967).
2. The United States Bureau of the Census, County Business Patterns 1967, U.S. Summary CBP-67-1 giving first quarter 1967 employment data according to the SIC.
3. The 100,000 card sample of the 1960 census which was also used for revising the occupation classification.

The 100,000 card sample permitted the preparation of estimates of the effect of the revisions on the classification of 1960 data. The process of assigning weights to these cards was the same as used for the occupation revisions. Table 210 which presents detailed industry data in the Detailed Characteristics, U.S. Summary was used as a base for applying the industry adjustment percentages to form the numerical estimates.

Presented in Table C is the 1960 experienced civilian labor force classified by the 1960 and 1970 systems showing differences at the major group level.

Table C.—SUMMARY OF CHANGES AMONG
MAJOR INDUSTRY GROUPS - 1960 TO 1970
(1960 Experienced Civilian Labor Force)

MAJOR INDUSTRY GROUPS	1970 Classifi- cation System	TOTAL 1960	
		Classifi- cation System	Difference
EXPERIENCED CIVILIAN LABOR FORCE	67,990,078	67,990,078	-
AGRICULTURE, FORESTRY, AND FISHERIES	4,518,771	4,519,332	- 561
MINING	713,661	713,661	-
CONSTRUCTION	4,302,307	4,302,307	-
DURABLE GOODS MANUFACTURING	10,417,534	10,413,191	+ 4,343
NONDURABLE GOODS MANUFACTURING	8,118,930	8,122,712	- 3,782
TRANSPORTATION, COMMUNICATIONS, AND OTHER PUBLIC UTILITIES	4,633,016	4,633,016	-
WHOLESALE AND RETAIL TRADE	12,362,554	12,362,554	-
FINANCE, INSURANCE, AND REAL ESTATE	2,749,175	2,749,022	+ 153
BUSINESS AND REPAIR SERVICES	1,679,789	1,683,297	- 3,508
PERSONAL SERVICES	4,077,788	4,074,359	+ 3,429
ENTERTAINMENT AND RECREATION SERVICES	553,767	553,767	-
PROFESSIONAL AND RELATED SERVICES	7,834,278	7,714,244	+ 120,034
PUBLIC ADMINISTRATION	3,181,447	3,301,555	- 120,108
INDUSTRY NOT REPORTED	2,847,061	2,847,061	-

Since almost all the changes affecting the industry classification system were internal group splits, very little net change occurred between groups. The 120,000 shift between "Public administration" and "Professional and related services" is caused, as noted earlier, by the shift of welfare activities from the former to the latter.

VII. EFFECT UPON "n.e.c." GROUPS

One of the major criticisms of the former occupational classification system centered on the "not elsewhere classified" groups. Those are the generalized residual categories, and the complaint was that they comprised a too large proportion of the work force. The attempt at resolution of this problem was a twofold approach. The first, as noted earlier, was to divide the n.e.c. groups into its two component parts, where possible, the not specified component, where the respondent entries were too vague to classify in a more refined manner, and the miscellaneous component which contains specific jobs but of limited significance or magnitude. This latter group was carefully examined to determine if new occupation groups could be established or job titles could be absorbed within existing groups. The measure of success this review met is shown in Table D.

It may be observed that whereas the 1960 system had 35 percent of its workers classified into 12 large n.e.c. groups, the reclassification reduced this to 23 percent for 15 categories. These 15 categories can be classified into three types. One type retains the label of "not elsewhere classified". Since the nature of the work performed by, e.g. "managers" and "salesmen" does not permit a determination of whether the entry is as detailed as possible. The other two, as noted earlier, are called "miscellaneous" and "not specified". The "miscellaneous" covers low frequency specific job titles; whereas the "not specified" categories include nondescriptive titles such as "office worker", "laborer", etc. Therefore, the 23 percent of the labor force included in these nonspecific occupation categories are distributed into these three types as follows:

The "not elsewhere classified" is 14 percent, the "miscellaneous" is 3.5 percent, and the "not specified" is 6 percent. Particularly noteworthy is the "Operatives" group where the "n.e.c." category was reduced from 7.3 percent of the ECLF to 3.8 percent, a decline of 48 percent. Moreover the 3.8 percent is distributed over four residual categories. The above figures were all standardized for the 1960 ECLF date base.

Prepublication data shows that these residual categories represent a lower proportion of the 1970 Census ECLF than the adjusted 1960 data presented here. In the 1970 Census, factors other than the reclassified occupation system play a role in the proportion these residual categories are to the whole. These factors would be the question wording and the quality of field and coding operations. The most important of these is the presence of two additional occupation questions on the 1970 Census questionnaire.

VIII. A STANDARD OCCUPATIONAL CLASSIFICATION SYSTEM?

The Interagency Occupational Classification Committee (of which the authors of this paper are members) under the auspices of the Office of Management and Budget played a strong role in providing an overview, guidance, and approval in the revision process. We look forward to the next quantum leap in the occupational classification work. This is a major attempt to establish a Standard Occupation Classification System. Such a system would parallel the Standard Industrial Classification System and would provide a uniform government-wide standard. This work has been

underway for some time by the Interagency Committee. In fact, the revisions in the "Professional and technical" group of the 1970 Occupation system were largely the result of efforts in this direction.

During this experimental and evaluation work we hope to also introduce considerations relative to the major group classifications. These groupings have fallen under criticism for not being truly a socioeconomic grouping and for failing to be responsive to other concerns. We are ambitious enough to be considering a number of different sets of standard groupings based on a variety of criteria—earnings, training requirements, and status that may serve to answer the different sets of questions asked of the data.

1/ A discussion of the background and development is given in "Some Recent Decennial Occupational Experimental Work" by Stanley Greene; Proceedings of the Social Statistics Section, 1966, American Statistical Association.

2/ For measures of the detailed movement of groupings among occupations and industries between the 1960 and 1970 Censuses see U.S. Bureau of the Census, 1970 Occupation and Industry Classification Systems in Terms of their 1960 Occupation and Industry Elements, Technical Paper No. 26, U.S. Government Printing Office.

TABLE D.—COMPARISON OF 1960 TO 1970 NOT ELSEWHERE CLASSIFIED (n.e.c.) CATEGORIES
(1960 Experienced Civilian Labor Force)

1960 Not Elsewhere Classified (n.e.c.) Categories				1970 Not Elsewhere Classified (n.e.c.) Categories			
Occupation	Total number	Percent of major group	Percent of ECLF	Occupation	Total number	Percent of major group	Percent of ECLF
Total ECLF	67,990,073	NA	100.0	Total ECLF	67,990,073	NA	100.0
Total of 12 n.e.c. categories	23,747,163	NA	34.9	Total of 15 n.e.c. categories	15,846,713	NA	23.3
Professional, technical, and kindred workers	7,335,699	100.0	10.8	Professional, technical, and kindred workers	7,089,840	100.0	10.4
Professional, technical, and kindred, n.e.c.	313,858	4.3	0.5	Research workers not specified	79,495	1.1	0.1
Managers, officials, and proprietors, exc. farm	5,489,489	100.0	8.1	Managers and administrators, except farm	57,082,247	100.0	8.4
Managers, officials, n.e.c.	4,586,035	83.5	6.7	Managers and administrators, n.e.c.	4,268,389	74.8	6.3
Sales workers	4,801,341	100.0	7.1	Sales workers	4,798,553	100.0	7.1
Sales workers, n.e.c.	3,888,635	81.0	5.7	Sales workers, n.e.c.	3,869,770	80.6	5.7
Clerical and kindred workers	9,617,487	100.0	14.2	Clerical and kindred workers	9,431,106	100.0	13.9
Agents, n.e.c.	163,117	1.7	0.2	Miscellaneous clerical workers	324,062	3.4	0.5
Clerical and kindred workers, n.e.c.	3,016,387	31.4	4.4	Not specified clerical workers	1,587,755	16.8	2.3
Craftsmen, foremen, and kindred workers	9,240,983	100.0	13.6	Craftsmen and kindred workers	9,465,311	100.0	13.9
Foremen, n.e.c.	1,199,055	13.0	1.8	Foremen, n.e.c.	1,185,586	12.5	1.7
Mechanics, n.e.c.	1,237,064	13.4	1.8	Miscellaneous mechanics	179,599	1.9	0.3
Craftsmen, n.e.c.	112,225	1.2	0.2	Not specified mechanics	528,005	5.6	0.8
Operatives and kindred workers	12,846,044	100.0	18.9	Craftsmen, n.e.c.	92,380	1.0	0.1
Operatives, n.e.c.	4,993,044	38.9	7.3	Operatives, including transport	12,254,280	100.0	18.0
Laborers, except farm	3,530,022	100.0	5.2	Machine operatives, miscellaneous specified	762,954	6.2	1.1
Laborers, n.e.c.	2,762,824	78.3	4.1	Machine operatives, not specified	632,755	5.2	0.9
Service workers, except private household	5,765,481	100.0	8.5	Miscellaneous operatives	799,178	6.5	1.2
Service workers, n.e.c.	192,879	3.3	0.3	Not specified operatives	371,715	3.0	0.6
Private household workers	1,824,817	100.0	2.7	Laborers, except farm	3,755,237	100.0	5.5
Private household workers, n.e.c.	1,281,740	70.2	1.9	Miscellaneous laborers	309,018	8.2	0.5
				Not specified laborers	856,052	22.8	1.3
				Service workers, except private household	6,085,582	100.0	9.0
				No n.e.c.	NA	NA	NA
				Private household workers	1,816,648	100.0	2.7
				No n.e.c.	NA	NA	NA