

## Four Factor Index of Social Status<sup>1</sup>

August B. Hollingshead  
Yale University

### I. Introduction

Characterization of the status structure of society is a general problem in sociology. For many years sociologists have discussed the issue of how to determine the positions individuals or nuclear families occupy in the status structure of a given society. Several measures have been devised to solve this problem (Blishen 1958, Duncan 1961, U. S. Bureau of the Census 1963, U. S. Bureau of the Census 1964, Blau and Duncan 1967: 117-132, Pineo and Porter 1967), but consensus has not been reached on the methodological procedures that best estimate the positions individuals or nuclear families occupy in the status structure of complex industrial, urban societies (Haug and Sussman 1971).

In the early 1940s, I made a systematic examination of status in a middle-western community (Hollingshead 1949). In 1948 I began to study the social structure of the New Haven area, a highly urbanized, industrial community. Two years later, I constructed an index designed to measure social status in this community, based on the use of education, occupation, and area of residence taken from a cross-sectional sample of nuclear families living there. The procedures followed in the development of that index are described in *Social Class and Mental Illness* (Hollingshead and Redlich 1958: 387-397).

In the following years I analyzed data from a five percent sample of nuclear families resident in the New Haven community in 1951 and found that area of residence contributed very little to the estimated status position of a nuclear family: the multiple correlation between estimated status and education

---

<sup>1</sup> Unpublished Working Paper, 1975

and occupation was .975. This correlation indicated that area of residence could be dropped as an indicator of status (Hollingshead 1971). In 1957 I published privately a pamphlet demonstrating that education and occupation could be used to construct an index of social status (Hollingshead 1957).

The *Two Factor Index of Social Position* has been widely used, but, with the social and cultural changes that have occurred since its publication, it stands in need of revision. The major points of criticism directed toward it are: it is now dated; the range of occupations used is too narrow; and the family's status position is based on data about the head of the household (Haug 1972). The Four Factor Index of Social Status presented here is designed to meet these deficiencies.

## II. The New Index

The new index takes into consideration the fact that social status is a multidimensional concept. It is premised upon three basic assumptions: (1) A differentiated, unequal status structure exists in our society. (2) The primary factors indicative of status are the occupation an individual engages in and the years of schooling he or she has completed; other salient factors are sex and marital status. (3) These factors may be combined so that a researcher can quickly, reliably, and meaningfully estimate the status positions individuals and members of nuclear families occupy in our society (Hodge and Treiman 1968).

The four factors used in the new index are: education, occupation, sex, and marital status. Education changes during childhood and youth, but it generally stabilizes in the adult years; the years of schooling an individual has completed are believed to be reflected in acquired knowledge and cultural tastes. Moreover, education is a prerequisite to entry into occupations

that carry higher prestige in the social system. Occupation may change in the early years of adult life, but it too tends to become stable as a person grows into the late twenties and on into the thirties. It is presumed to be indicative of the skill and power individuals possess as they perform the maintenance functions in society. The sex of an individual remains constant throughout the course of the life cycle, but it plays an important part in the roles individuals play in the performance of maintenance functions in the society. Marital status defines the relationship of an adult male or female to the family system; it may or may not be stable from the early adult years on into old age. Both males and females participate in the educational process, mainly during the childhood and adolescent years (Ritter and Hargens 1975). Most adult males enter the labor force and fill occupational roles; in contemporary industrial society, more and more females are entering the labor force. Marital status is important in the calculation of social status because of differences in the ways adult family members participate in the economic system (Watson and Barth 1964). One spouse may be a full-time participant in the labor force while the other is not gainfully employed outside the home. However, as the years pass, the proportion of intact nuclear families with both spouses gainfully employed increases. Other families may be headed by a single, widowed, separated, or divorced male or female who is now or in the past has been gainfully employed. This index takes into consideration the several categories.

### III. Estimation of Social Status

Information on each of the four factors is easily gathered in an empirical study. The sex of a respondent is observable directly and is assumed to be what appearances indicate. The other factors require inquiry and evaluation. The use of each factor in the estimation of status is described in the following sections.

## A. Marital Status

### 1. Married and Living with Spouse

a. One spouse, male or female, gainfully employed; other spouse not employed. The estimated social position of this type of nuclear family is calculated on the basis of the employed member's education and occupation.

b. Both spouses gainfully employed. The education and occupation of each spouse is used to estimate the status position of the nuclear family.

It is assumed that the education and occupation of each spouse constitutes an equal proportion of the nuclear family's status. In the absence of theoretical and empirical evidence, a rule of thumb is followed, that is, education and occupation scores for the husband and wife are summed and divided by two. Research has indicated that the prestige of occupations is similar for males and females and that education is essentially the same for males and females in the same occupation (Treiman and Terrill 1975, especially p. 176). In accordance with this finding, the combined score for the two spouses is assigned as the status score of the family.

### 2. Family Without Spouse

Nuclear families or households may be headed by persons who have never married, divorced persons, persons permanently separated from a spouse, or widowed persons. Households falling into this category present the researcher with various alternatives:

a. When the head has never been married, the status score is calculated by the use of the head's occupation and education.

b. When a divorced person is employed full time in a gainful occupation, the occupation and education of the present head of

the household should be used to calculate the status score.

c. When a separated or divorced person is receiving support payments from an absent, present or former, spouse, but is not gainfully employed, the status score should be calculated from the education and occupation of the supporting spouse.

d. When a widow or widower who is not gainfully employed is living on the income from the deceased spouse's estate, the status score should be computed on the education and occupation of the deceased spouse during the time he or she was gainfully employed.

#### B. Retired Persons

For retired persons, the status score should be calculated from the education and occupation of the person before he, she, or they retired. The factor of marital status should be handled in the same way that it is for nuclear families with one or both spouses active in the labor force.

#### C. The Educational Factor

The years of school a respondent has completed are scored on a seven-point scale, premised upon the assumption that men and women who possess different levels of education have different tastes and tend to exhibit different behavior patterns. The years of school an individual has completed are grouped in the same way as in the earlier *Two Factor Index of Social Position* (Hollingshead 1957: 9). The amount of formal education a person has completed is scored as follows:

<u>Level of School Completed</u>	<u>Score</u>
Less than seventh grade	1
Junior high school (9th grade)	2
Partial high school (10th or 11th grade)	3
High school graduate (whether private preparatory, parochial, trade, or public school)	4
Partial college (at least one year) or specialized training	5
Standard college or university graduation	6
Graduate professional training (graduate degree)	7

#### D. The Occupational Factor

The occupation a person ordinarily pursues during gainful employment is graded on a nine-step scale. Wherever possible, the scale has been keyed to the occupational titles used by the United States Census in 1970, and the three-digit code assigned by the census is given (Greene et al. 1969: 77-84)<sup>2</sup>. However, the occupational titles assigned by the census are not precise enough to delineate several occupational categories, especially proprietors of businesses, the military, farmers, and persons dependent upon welfare. Therefore, the occupational scale has departed from the titles and codes used by the census for a number of occupations and occupational groups.

#### OCCUPATIONAL SCALE

Score 9 Higher Executives, Proprietors of Large Businesses, and Major Professionals

- a. Higher executives: chairpersons, presidents, vice-presidents, assistant vice-presidents, secretaries, treasurers;
- b. Commissioned officers in the military: majors, lieutenant commanders, and above, or equivalent;

---

<sup>2</sup>For detailed instructions, see Bureau of the Census (1971a, 1971b).

- c. Government officials, federal, state, and local: members of the United States Congress, members of the state legislature, governors, state officials, mayors, city managers;
- d. Proprietors of businesses valued at \$250,000 and more;<sup>3</sup>
- e. Owners of farms valued at
- f. Major professionals (census code list).

<u>Occupational Title</u>	<u>Census Code</u>
Actuaries	034
Aeronautical engineers	006
Architects	002
Astronautical engineers	006
Astronomers	053
Atmospheric scientists	043
Bank officers	202
Biologic scientists	044
Chemical engineers	010
Chemists	045
Civil engineers	010
Dentists	062
Economists	091
Electrical/electronic engineers	012
Engineers, not elsewhere classified <sup>4</sup>	023
Financial managers	202
Geologists	051
Health administrators	212
Judges	030
Lawyers	031
Life scientists, n.e.c.	054
Marine scientists	052

<sup>3</sup> Dun and Bradstreet maintain up-to-date ratings of financial strength of businesses in every community in the United States. These ratings may be obtained from most banks if the researcher explains his need for them.

<sup>4</sup> From here on, the abbreviation, n.e.c., will be used.

Materials engineers	015
Mathematicians	035
Mechanical engineers	014
Metallurgical engineers	015
Mining engineers	020
Optometrists	063
Petroleum engineers	021
Physical scientists, n.e.c.	054
Physicians	065
Physicists	053
Political scientists	092
Psychologists	093
Social scientists, n.e.c.	096
Sociologists	094
Space scientists	043
Teachers, college/university, including coaches	102-140
Urban and regional planners	095
Veterinarians	072

Score 8 Administrators, Lesser Professionals, Proprietors of Medium-Sized Businesses

- a. Administrative officers in large concerns: district managers, executive assistants, personnel managers, production managers;
- b. Proprietors of businesses valued between \$100,000 and \$250,000;
- c. Owners and operators of farms valued between \$100,000 and \$250,000;
- d. Commissioned officers in the military; lieutenants, captains, lieutenants, s.g., and j.g., or equivalent;
- e. Lesser professionals (census code list).



<u>Occupational Title</u>	<u>Census Code</u>
Accountants	001
Administrators, college	235
Administrators, elementary/secondary school	240
Administrators, public administration, n.e.c.	222
Archivists	033
Assessors, local public administration	201
Authors	181
Chiropractors	061
Clergymen	086
Computer specialists, n.e.c.	005
Computer systems analysts	004
Controllers, local public administration	201
Curators	033
Editors	184
Farm management advisors	024
Industrial engineers	013
Labor relations workers	056
Librarians	032
Musicians/composers	185
Nurses, registered	075
Officials, public administration, n.e.c.	222
Personnel workers	056
Pharmacists	064
Pilots, airplane	163
Podiatrists	071
Sales engineers	022
Statisticians	036
Teachers, secondary school	144
Treasurers, local public administration, n.e.c.	201

Score 7 Smaller Business Owners, Farm Owners, Managers, Minor Professionals

a. Owners of smaller businesses valued at \$75,000 to \$100,000;

b. Farm owners/operators with farms valued at \$75,000 to \$100,000;

- c. Managers (census code list);
- d. Minor professionals (census code list);
- e. Entertainers and artists.

<u>Occupational Title</u>	<u>Census Code</u>
Actors	175
Agricultural scientists	042
Announcers, radio/television	193
Appraisers, real estate	363
Artists	194
Buyers, wholesale/retail trade	205
Computer programmers	003
Credit persons	210
Designers	183
Entertainers, n.e.c.	194
Funeral directors	211
Health practitioners, n.e.c.	073
Insurance adjusters, examiners, investigators	326
Insurance agents, brokers, underwriters	265
Managers, administration, n.e.c.	245
Managers, residential building	216
Managers, office, n.e.c.	220
Officers, lodges, societies, unions	223
Officers/pilots, pursers, shipping	221
Operations/systems researchers/analysts	055
Painters	190
Postmasters, mail supervisors	224
Public relations persons	192
Publicity writers	192
Purchasing agents, buyers, n.e.c.	225
Real estate brokers/agents	270
Reporters	184
Sales managers, except retail trade	233
Sales representatives, manufacturing industries	281
Sculptors	190

Social workers	100
Stock/bond salesmen	271
Surveyors	161
Teachers, except college/university/secondary school	141-143
Teachers, except college/university, n.e.c.	145
Vocational/educational counsellors	174
Writers, n.e.c.	194

Score 6 Technicians, Semiprofessionals, Small Business Owners

- a. Technicians (census code list);
- b. Semiprofessionals: army, m/sgt., navy, c.p.o., clergymen (not professionally trained), interpreters(court);
- c. Owners of businesses valued at \$50,000 to \$75,000;
- d. Farm owners/operators with farms valued at \$50,000 to \$75,000.

<u>Occupational Title</u>	<u>Census Code</u>
Administrators, except farm--allocated	246
Advertising agents/salesmen	260
Air traffic controllers	164
Athletes/kindred workers	180
Buyers, farm products	203
Computer/peripheral equipment operators	343
Conservationists	025
Dental hygienists	081
Dental laboratory technicians	426
Department heads, retail trade	231
Dietitians	074
Draftsmen	152
Embalmers	165
Flight engineers	170
Foremen, n.e.c.	441
Foresters	025
Home management advisors	026
Inspectors, construction, public administration	213

Inspectors, except construction, public administration	215
Managers, except farm--allocated	246
Opticians, lens grinders/polishers	506
Payroll/timekeeping clerks	360
Photographers	191
Professional, technical, kindred workers--allocated	196
Religious workers, n.e.c.	090
Research workers, not specified	195
Sales managers, retail trade	231
Sales representatives, wholesale trade	282
Secretaries, legal	370
Secretaries, medical	371
Secretaries, n.e.c.	372
Sheriffs/bailiffs	965
Shippers, farm products	203
Stenographers	376
Teacher aides, except school monitors	382
Technicians	150-162
Therapists	076
Tool programmers, numerical control	172

Score 5 Clerical and Sales Workers, Small Farm and Business Owners

- a. Clerical workers (census code list);
- b. Sales workers (census code list);
- c. Owners of small business valued at \$25,000 to \$50,000;
- d. Owners of small farms valued at \$25,000 to \$50,000.

<u>Occupational Title</u>	<u>Census Code</u>
Auctioneers	261
Bank tellers	301
Billing clerks	303
Bookkeepers	305
Bookkeeping/billing machine operators	341
Calculating machine operators	342
Cashiers	310
Clerical assistants, social welfare	311
Clerical workers, miscellaneous	394
Clerical/kindred workers---	396
Clerical supervisors, n.e.c.	312
Clerks, statistical	375
Collectors, bill-account	313
Dental assistants	921
Estimators, n.e.c.	321
Health trainees	923
Investigators, n.e.c.	321
Key punch operators	345
Library assistants/attendants	330
Recreation workers	101
Tabulating machine operators	350
Telegraph operators	384
Telephone operators	385
Therapy assistants	084
Typists	391

Score 4 Smaller Business Owners, Skilled Manual Workers, Craftsmen, and Tenant Farmers

- a. Owners of small businesses and farms valued at less than \$25,000;
- b. Tenant farmers owning farm machinery and livestock;
- c. Skilled manual workers and craftsmen (census code list);
- d. Noncommissioned officers in the military below the rank of master sergeant and C.P.O

<u>Occupational Title</u>	<u>Census Code</u>
Airline cabin attendants	931
Automobile accessories installers	401
Bakers	402
Blacksmiths	403
Boilermakers	404
Bookbinders	405
Brakemen, railroad	712
Brickmasons/stonemasons	410
Brickmason/stonemason apprentices	411
Cabinetmakers	413
Carpenters	415
Carpenter apprentices	416
Carpet installers	420
Cement/concrete finishers	421
Checkers/examiners/inspectors, manufacturing	610
Clerks, shipping/receiving	374
Compositors/typesetters	422
Conductors, railroad	226
Constables	963
Counter clerks, except food	314
Decorators/window dressers	425
Demonstrators	262
Detectives	964
Dispatchers/starters, vehicles	315
Drillers, earth	614
Dry wall installers/lathers	615
Duplicating machine operators, n.e.c.	344
Electricians	430
Electrician apprentices	431
Electric power linemen/cablemen	433
Electrotypers	434
Engineers, locomotive	455
Engineers, stationary	545
Engravers, except photoengravers	435
Enumerators	320

Expeditors	323
Firemen, fire protection	961
Firemen, locomotive	456
Floor layers	440
Foremen, farm	821
Forgemen/hammermen	442
Furriers	444
Glaziers	445
Heat treaters/annealers/temperers	446
Heaters, metal	626
Housekeepers, except private household	950
Inspectors, n.e.c.	452
Inspectors/scalers/graders, log and lumber	450
Interviewers	331
Jewelers/watchmakers	453
Job and diesetters, metal	454
Lithographers	515
Loom fixers	483
Machinists	461
Machinist apprentices	462
Mail carriers, post office	331
Mail handlers, except post office	332
Managers, bar/restaurant/cafeteria	230
Marshals, -law--enforcement	963
Mechanics	470-495
Meter readers	334
Millers, grain/flour/feed	501
Millwrights	355
Molders, metal	503
Molder apprentices	504
Office machine operators, n.e.c.	514
Patternmakers/modelmakers	522
Photoengravers	515
Plasterers	520
Plasterer apprentices	521
Plumbers/pipefitters	522

Plumber/pipefitter apprentices	523
Power station operators	525
Postal clerks	361
Practical nurses	926
Piano/organ tuners/repairmen	516
Pressmen, plate printers, printing trade	530
Pressmen apprentices	531
Projectionists, motion picture	505
Printing trade apprentices, except pressmen	423
Proof readers	362
Radio operators	171
Receptionists	364
Repairmen	471-486
Rollers/finishers, metal	533
Sheetmetal workers	533
Sheetmetal worker apprentices	536
Stereotypers	434
Stock clerks/storekeepers	381
Stone cutters/carvers	546
Structural metal workers	550
Superintendents, building	216
Switchmen, railroad	713
Tailors	551
Telephone linemen/splicers	552
Telephone installers/repairmen	554
Ticket/station/express agents	390
Tile setters	560
Tool and diemakers	561
Tool and diemaker apprentices	562
Weighers	392
Welders/flame cutters	680



### Score 3 Machine Operators and Semiskilled Workers (census code list)

<u>Occupational Title</u>	<u>Census Code</u>
Animal caretakers	740
Asbestos/insulation workers	601
Assemblers	602
Barbers	935
Blasters/powdermen	603
Boardinghouse/lodginghouse keepers	940
Boatmen/canalmen	701
Bottling operatives	604
Bulldozer operators	412
Bus drivers	703
Canning operatives	604
Carding, lapping, combing operatives	670
Chauffeurs	714
Child care workers, except private household	942
Conductors/motormen, urban rail transit	704
Cranemen/derrickmen/hoistmen	424
Cutting operatives	612
Deliverymen	704
Dressmakers/seamstresses, except factory	613
Drill press operatives	650
Dyers	620
Excavating/grading/road machine operators except bulldozer	436
Farm services laborers, self-employed	824
File clerks	325
Filers/polishers/sanders/buffers	621
Fishermen/oystermen	752
Forklift/tow motor operatives	706
Furnacemen/smelters/pourers	622
Furniture/wood finishers	443
Graders/sorters/manufacturing	623
Grinding machine operatives	651
Guards/watchmen	962

Hairdressers/cosmetologists	944
Health aides, except nursing	922
Housekeepers, private household	982
Knitters/loopers/toppers	671
Lathe/milling machine operatives	652
Machine operatives, miscellaneous specified	690
Machine Operatives, n.e.c.	692
Meat cutters/butchers, except manufacturing	631
Meat cutters, butchers, manufacturing	633
Metal platers	635
Midwives (lay)	924
Milliners	640
Mine operatives	640
Mixing operatives	710
Motormen, mine/factory/logging camp, etc.	710
Nursing aides/attendants	925
Oilers/greasers, except auto	642
Operatives, miscellaneous	694
Operatives, not specified	695
Operatives, except transport ---allocated	696
Orderlies	925
Painters, construction/maintenance	510
Painter apprentices	511
Painters, manufactured articles	644
Paperhangers	512
Photographic process workers	645
Precision machine operatives, n.e.c.	653
Pressers/ironers, clothing	611
Punch/stamping press operatives	656
Riveters/fasteners	660
Roofers/slaters	534
Routemen	705
Sailors/deckhands	661
Sawyers	662
Service workers, except private household---allocated	976
Sewers/stitchers	663

Shoemaking machine operatives	664
Shoe repairmen	542
Sign painters/letterers	543
Spinners/twisters/winders	672
Solderers	665
Stationary firemen	666
Surveying, chainmen/rodmen/axmen	605
Taxicab drivers	714
Textile operatives, n.e.c.	674
Transport equipment operatives---allocated	726
Truck drivers	715
Upholsterers	563
Weavers	673
Welfare service aides	954
Enlisted members of the armed services (other than noncommissioned officers)	---

## Score 2 Unskilled Workers (census code list)

<u>Occupational Title</u>	<u>Census Code</u>
Bartenders	910
Busboys	911
Carpenter's helpers	750
Child care workers, private household	980
Construction laborers, except carpenters' helpers	751
Cooks, private household	981
Cooks, except private household	912
Crossing guards/bridge tenders	960
Elevator operators	943
Food service, n.e.c., except private household	916
Freight/materials handlers	753
Garage workers/gas station attendants	623
Garbage collectors	754
Gardeners/groundskeepers, except farm	755
Hucksters/peddlers	264
Laborers, except farm---allocated	796

Laborers, miscellaneous	780
Laborers, not specified	785
Laundry/drycleaning operatives, n.e.c.	630
Lumbermen/raftsmen/woodchoppers	761
Meat wrappers, retail trade	634
Messengers	333
Office boys	333
Packers/wrappers, n.e.c.	643
Parking attendants--	711
School monitors	952
Waiters	915
Warehousemen, n.e.c.	770

Score 1 Farm Laborers/Manial Service Workers (census code list)

<u>Occupational Title</u>	<u>Census Code</u>
Attendants, personal service, n.e.c.	933
Attendants, recreation/amusement	932
Baggage porters/bellhops	934
Bootblacks	941
Chambermaids, maids, except private household	901
Cleaners/charwomen	902
Dishwashers	913
Farm laborers, wage workers	931
Farm laborers/farm foremen/kindred workers---allocated	846
Janitors/sextons	903
Laundresses, private household	983
Maids/servants, private household	984
Newsboys	266
Personal service apprentices	945
Private household workers---allocated	986
Produce graders/sorters, except factory/farm	625
Stockhandlers	762
Teamsters	763
Vehicle washers/equipment cleaners	764
Ushers, recreation/amusement	953

#### IV. The Estimation of Status

The status score of an individual or a nuclear family unit is estimated by combining information on sex, marital status, education, and occupation. The status score of an individual is calculated by multiplying the scale value for occupation by a weight of five (5) and the scale value for education by a weight of three (3).<sup>5</sup> To calculate the status score for a nuclear family it is necessary to determine the education, occupation, and marital status of its head or heads and their relationship to the labor force in the present, or for retired persons in the past. Two examples illustrate this point:

a. John Smith lives with his spouse who is a housewife.<sup>6</sup> He is the manager of a supermarket. He completed high school and one year of business college. His status score is computed as follows:

<u>Factor</u>	<u>Scale score</u>	<u>Factor weight</u>	<u>Score x Weight</u>
occupation	6	5	30
education	5	3	<u>15</u>
		total score	45

b. The Peter Paul family's score is computed differently because both Peter and his wife are gainfully employed. Peter is an installer for the telephone company. His wife is employed as a clerk in an insurance company office. Peter completed high school. His wife completed high school and one year of business college. The scores for each are calculated as follows:

---

<sup>5</sup> The overall factor weight for occupation and evaluation were calculated by the use of multiple regression equations.

<sup>6</sup> I recognize that the housewife performs essential maintenance functions in society, but the occupational role of housewife is not scaled in this index.

Peter Paul

<u>Factor</u>	<u>Scale score</u>	<u>Factor weight</u>	<u>Score x Weight</u>
occupation	4	5	20
education	4	3	<u>12</u>
		total score	32

May Paul

<u>Factor</u>	<u>Scale score</u>	<u>Factor weight</u>	<u>Score x Weight</u>
occupation	5	5	25
education	5	3	<u>15</u>
		total score	40

To determine the Peter Paul family's social status, the scores for each spouse are summed and the total is divided by two:

Peter Paul	32	
Mary Paul	<u>40</u>	
total score	72	divided by 2 = 36.

The total score for the family is higher than that for Peter alone, but lower than for Mary alone. When two spouses are gainfully employed the husband's or the wife's education and occupation may raise or lower the calculated score for the family.

Computed scores range from a high of 66 to a low of 8. This range remains constant whether the computed score is based on the occupation of one or two members of a nuclear family or household. It is assumed that the higher score of a family or nuclear unit, the higher the status its members are accorded by other members of our society. This assumption is derived from the assignment of differential values to the amount and kind of education an adult has received and to the occupational functions individuals perform in society. Values assigned to the amount of education

an adult has received are linked, in turn, to occupational functions. In contemporary American society, differential rewards are assigned to occupational functions. In a diffuse way these values are social; in a specific sense, they are pecuniary. The most highly valued occupations are associated with financial, managerial, legal, and medical functions. Consequently, the banker, the corporation executive, the corporation lawyer, and the medical specialist are most highly rewarded for the functions they perform. Technical, clerical, and sales work carry lower rewards. Such functions as stoop agricultural labor in the fields of factory farms carry the lowest pecuniary and social rewards. There are many gradations between these examples. The important point about occupational function is that the work an individual performs is what is evaluated. The pecuniary and social rewards associated with it are society's way of compensating the individual for the work he performs. Secondly, individuals are identified in society with their occupational pursuits. In this process, the invidious value associated with the occupational function is associated with the individual who performs it. Thirdly, for the mass of individuals, the income earned on the job is translated into goods and services. This is expressed in economic terms as a level of living. The general relationship between occupational pursuits, pecuniary rewards, and level of living results in the socioeconomic divisions so vividly recognized in our society.

#### V. Validation of the Index

To validate the scales used for education and occupation, we analyzed data gathered in the United States Census in 1970. The linkage between the years of school completed and occupational pursuits is shown in Tables 1 and 2 of the Appendix. The analysis summarized in Table 1 reveals a definite

gradient between the years of school completed and the score assigned to a group of similar occupations. The gradient is similar for males and females in the labor force. The correlation between median years of school completed by sex and occupational score groups is summarized in Table 2. The coefficient of correlation,  $r$ , is essentially the same for both males and females.

Although I did not utilize data on income in this index, I have analyzed them for validation purposes. The linkage between the score assigned to occupational groups and earned income is summarized in Table 3. The mean dollars earned by each occupational code group, listed in the 1970 census, traces a distinct gradient from the highest to the lowest scored occupations with one exception: in both sexes persons engaged in skilled occupations, with a score of 4, earned on the average more than persons in the clerical and sales groups with a score of 5. This variation between the prestige scores assigned to the clerical and sales occupations may be attributed to the favorable view of white-collar clerical and sales work, in contrast to blue-collar skilled manual work in our society. Another important component in this variation between prestige scores and earned income is the high percentage of workers with the score of 4 who belong to craft unions. Sex is a factor also, since a high proportion of clerical and sales workers are females, whereas the majority of skilled manual workers are males. However, when sex is controlled, skilled manual workers earn more than clerical and sales workers.

The disparity between the mean earnings in each of the nine occupational groups by sex is a reflection of the differential values assigned to occupational tasks performed by males in contrast to females. This disparity cannot be attributed to differences in years of school completed by the two sexes, as is demonstrated by the figures given in Table 1.



The National Opinion Research Center has been studying evaluation of occupations and occupational groups for some 30 years. As a criterion against which the scores assigned to occupations and occupational groups could be tested, I compared the scores for occupational groups in this index with the prestige scores developed by the NORC for use in its General Social Survey.<sup>7</sup> The occupational titles used by the United States Bureau of the Census for the 1970 census and scored by the present index and the NORC were correlated. The Pearsonian Product Moment Coefficient of Correlation between the nine-step occupational scale and the NORC prestige scores is  $r = .927$ . The coefficient of determination is  $r^2 = .860$ .

The analyses reported here of interrelations between years of school completed, occupational pursuits, and earnings on the job demonstrate the existence of a status system in contemporary American society that is symbolized by the amount of education adults have received, the occupations they pursue, and the sex bestowed on them by the biological lottery we are all enmeshed in. Education tends to condition occupational opportunities, and the pecuniary value assigned to occupations, in turn, conditions the amount of income an individual earns on the job. In sum, the scores computed by the use of this index are a measure of inequality in the social system of the United States.

## VI. Two Unfinished Tasks

Further research is indicated to determine the effects of marital status on social status. Preliminary studies indicate that when both spouses

---

<sup>7</sup> See *National Data Program for the Social Sciences, Code Book for the Spring 1974*, General Social Survey, July 1974, conducted by the National Opinion Research Center of the University of Chicago, data distributed by the Roper Public Opinion Research Center, Williams College, Pp. 117 - 134.

are gainfully employed, instead of just one, there is a distinct effect on the socioeconomic status of the individual and/or the nuclear family. A second uncompleted research problem is the division of the continuum of scores based on education and occupation into meaningful groups. Tentatively, I believe computed scores for individuals or nuclear families can be aggregated into groups of scores that encompass the major strata symbolic of social standing in contemporary American society. I have found that meaningful groups of scores for estimating the position of an individual or a nuclear family in the status structure are as follows:

<u>Social Strata</u>	<u>Range of Computed Scores</u>
Major business and professional	66-55
Medium business, minor professional, technical	54-40
Skilled craftsmen, clerical, sales workers	39-30
Machine operators, semiskilled workers	29-20
Unskilled laborers, menial service workers	19-8

When the scores are aggregated, individuals and nuclear families with scores that fall into a range of scores are presumed to be in the stratum the index assigns to them. The assumption of a meaningful correspondence between a stratum and the social behavior of individuals or nuclear family groups was validated originally by the use of factor analysis (Hollinghead and Redlich 1958: 398-407). The validation study demonstrated significant differences between groups of scores when mass communication data were used as criteria of social behavior. However, a new validation study is indicated for the findings that are likely to be brought out in new research. What is needed is a major study of interrelations between the scores computed from the four factors in this index and social and cultural items forming behavioral

patterns that may be correlated with the major strata in our society.

**APPENDIX**

Table I. Mean Years of School Completed by Occupational Score and Sex of the Civilian Labor Force, 1970\*

<u>Occupational Score</u>	<u>Males</u>		<u>Females</u>	
	<u>Mean+</u>	<u>Standard Deviation</u>	<u>Mean+</u>	<u>Standard Deviation</u>
9	17.2	0.53	16.6	1.30
8	16.1	1.26	15.1	1.64
7	14.4	1.51	13.6	1.49
6	13.0	1.10	13.2	1.21
5	12.7	0.85	12.5	0.49
4	11.5	0.01	11.9	0.72
3	11.0	1.17	11.0	0.82
2	10.7	1.01	10.7	0.80
1	10.6	2.27	9.7	1.11
All ranks	12.8	2.45	12.7	2.15

Table 2. Correlation of Median Years of School Completed by Occupational Score and Sex for the Civilian Labor Force, 1970

<u>Item</u>	<u>Males</u>	<u>Females</u>
r=	0.835	0.849
r2=	0.697	0.722
Intercept (A)	6.648	7.396
Slope (B)	0.797	0.689
Significance	0.00001	0.00001
Standard error of estimate	1.352	1.133

Table 3. Mean Income Earned (dollars), by Occupational Score and Sex for the Civilian Labor Force, 1970\*

<u>Occupational Score</u>	<u>Males</u>		<u>Females</u>	
	<u>Mean+</u>	<u>Standard Deviation</u>	<u>Mean+</u>	<u>Standard Deviation</u>
9	\$13,427	\$ 3,079	\$ 7,275	\$ 1,823
8	11,054	2,676	6,654	2,151
7	9,742	1,972	5,428	1,525
6	8,473	2,134	5,013	1,137
5	6,667	2,215	3,780	1,439
4	7,530	1,479	4,915	1,616
3	6,264	1,256	3,578	1,039
2	4,037	1,725	2,568	1,309
1	2,679	1,374	1,612	762
Totals	\$ 8,022	\$ 3,419	\$ 4,720	\$ 2,089

Table 4. Correlation of the Median Incomes Earned (dollars), by Occupational Score and Sex for the Civilian Labor Force, 1970\*

<u>Item</u>	<u>Males</u>	<u>Females</u>
r=	0.781	0.672
R <sup>2</sup> =	0.610	0.452
Intercept (A)	303.241	708.934
Slope (B)	1008.165	524.222
Significance	0.00001	0.00001
Standard error of estimate	2137.643	1549.582

\*The data for this table were abstracted from the U. S. Census of Population, 1970, Occupational Characteristics, Vol. 2, Table 1, "Summary of Social and Economic Characteristics of the Experienced Civilian Labor Force by Detailed Occupations and Sex," Pp. 1-11. This table gives the median income earned by each occupational category and sex by occupational code. +In Tables 1 and 3, the mean figure for each occupational rank by sex is the mean of the medians given in Table 1, cited above, from the U. S. Census of Population, 1970.

## References

Blau, Peter M., and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: John Wiley.

Blishen, Bernard R. 1958. "The Construction and Use of an Occupational Class Scale." *Canadian Journal of Economics and Political Science* 24: 519-531.

Duncan, Otis Dudley. 1961. "A Socioeconomic Index for all Occupations," Pp. 109-138 in *Occupations and Social Status*, edited by Albert J. Reiss, Jr., Otis Dudley Duncan, Paul K. Hatt, and Cecil C. North. New York: Free Press of Glencoe.

Greene, Stanley, John Prieve, and Richard Morrison. 1969. "The 1970 Census of Population Occupational Classification System." *Statistical Reporter* (December):77-84.

Haug, Marie R. 1972. "An Assessment of Inequality Measures," Pp. 429-451 in *Issues in Social Inequality*, edited by Gerald W. Thielbar, and Saul D. Feldman. Boston: Little, Brown.

Haug Marie R., and Marvin B. Sussman. 1971. "The Indiscriminate State of Social Class Measurement," *Social Forces* 49: 549-563.

Hodge, Robert W., and Donald J. Treiman. 1968. "Class Identification in the United States," *American Journal of Sociology* 73: 535-547.

Hollingshead, August B. 1949. *Elmtown's Youth*. New York: John Wiley.

\_\_\_\_\_. 1957. *Two Factor Index of Social Position*. New Haven. (Privately printed.)

\_\_\_\_\_. 1971. "Commentary on 'The Indiscriminate State of Social Class Measurement,'" *Social Forces* 49: 563-567.

Hollingshead, August B., and F. C. Redlich. 1958. *Social Class and Mental Illness*. New York: John Wiley.

Pineo, Peter C., and John Porter. 1967. "Occupational Prestige in Canada," *Canadian Review of Sociology and Anthropology* 4: 55-68.

Ritter, Kathleen V., and Lowell L. Hargens. 1975. "Occupational Position and Class Identifications of Married Working Women: A Test of the Asymmetry Hypothesis," *American Journal of Sociology* 80: 934-948.

U.S. Bureau of the Census. 1963. *Methodology and Scores of Socioeconomic Status* (Working Paper No. 15). Washington, DC: U.S. Government Printing Office.

\_\_\_\_\_. 1964 "Socioeconomic Characteristics of the Population, 1960," *Current Population Reports*, Series P-23(12) July 31.

\_\_\_\_\_. 1971a. *1970 Census of Population, Alphabetical Index of Industries and Occupations*. Washington DC: U.S. Government Printing Office.

\_\_\_\_\_. 1971b. 1970 *Census of Population, Classified Index of Industries and Occupations*. Washington DC: U.S. Government Printing Office.

Watson, Walter B., and Ernest A. Barth. 1964. "Questionable Assumptions in the Theory of Social Stratification," *Pacific Sociological Review* 7: 10-16.

