## NATIONAL CENTER FOR HEALTH STATISTICS

# Public Use Data Tape Documentation 

Dental, Ages 1-74 Years
Tape Number 4235
National Health and Nutrition Examination Survey, 1971-75


USS. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service Centers for Disease Control

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Public Health Service
Centers for Disease Control
National Center for Health Statistics
Hyattsville, Maryland
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## DENTAL DATA TAPE

Health and Nutrition Examination Survey, HANES I, 1971-1975

Description of Survey: A detailed description of the design, content and operation of HANES $I$ is provided in the following reports: Plan and Operation of the Health and Nutrition Examination Survey, DHEW Pub. No. (HSM) 73-1310, Series 1, Nos. 10a and 10b, Public Health Service, Washington, D. C., U.S. Government Printing Office, February 1973. A description of the augmentation survey of adults conducted between July 1974 and October 1975 is also provided.

Target Population: HANES I was conducted on a nationwide probability sample of approximately 28,000 persons, ages 1-74 years, from the civilian, noninstitutionalized population of the coterminous United States, excepting those persons residing on Indian reservations. The survey started in April 1971 and for many survey components, including the dental examinations, it was completed in June 1974. The HANES I sample was selected so that certain population groups thought to be at high risk of malnutrition (persons with low incomes, preschool children, women of childbearing age and the elderly) were oversampled at known rates. Adjusted sampling weights were then computed within 60 age, sex and race categories in order to inflate the sample in
such a manner as to closely reflect the noninstitutionalized population, ages 1-74 years, of the United States at the midpoint of the survey.

Although the main emphasis of HANES I was on nutrition, a subset of the sample persons aged 25-74 received a more detailed health examination which was continued through October 1975. No particular oversampling of subgroups of the population was done in this subsample (e.g., women of childbearing age were not oversampled as they were for the major nutrition component of HANES I). This subsample is also representative of the United States population ages 25-74 during the time of HANES $I$.

After the nutrition survey was completed, the detailed examination given to the 25-74 age group was continued until the total number of examined persons was approximately double the number of examinees who received the detailed examination during the nutrition survey.

Data Collection: Information about all of the examined sample persons in HANES I was obtained by means of a household interview, a general medical history, a 24-hour dietary intake recall interview, a food frequency interview, a food program questionnaire, a general medical examination, dental, dermatological and ophthalmological examinations, anthropometric measurement, hand-wrist x-rays (of those ages l-l7 only) and 24 hematological, blood chemistry, and urological laboratory determinations.

In addition to the information received on all examined persons by means of the above questionnaires, procedures and measurements, the following data were gathered on the subsample of adults aged 25-74: a medical history supplement; supplementary questionnaires concerning arthritis, respiratory and cardiovascular conditions (when applicable); a health care needs questionnaire; a general weli-being questionnaire; an extended medical examination; x -rays of the chest and hip and knee joints; audiometry; electrocardiography; goniometry; spirometry; pulmonary diffusion and tuberculin tests; along with additional laboratory determinations.

## Use of HANES Data

With the goal of mutual benefit, NCHS requests the cooperation of recipients of data tapes in certain actions related to their use:
A. Any published material derived from the data should acknowledge the National Center for Health Statistics as the original source. It should include also a disclaimer which credits any analyses, interpretations, or conclusions reached to the author (recipient of the tape) and not to NCHS, which is responsible only for the initial data.
B. Consumers who wish to publish a technical description of the data will make a reasonable effort to insure that the description is not inconsistent with that published by NCHS. This does not mean, however, that NCHS will review such descriptions.

## Errors in the Data Sets and Survey Differences

The data users tapes have been subjected to a great deal of careful editing. However, due to the large volume of data in the series, it is likely that a small number of errors or discrepancies remain undetected. We would appreciate having any such errors that are detected brought to our attention so that new corrected copies of the tape can be created and errata sheets issued to previous purchasers.

Some of the continuous data items have extremely high or low values and we have verified that they do in fact appear that way on the hard documents; that is, we have verified that the values have not been incorrectly keyed.

In general, we have not attempted to resolve any differences that may exist between estimates derived from the various subsamples of HANES $I$. Nor have we made any comparisons between estimates from HANES I and previous surveys conducted by the Division of Health Examination Statistics.

## Variance Estimation

Because the Health and Nutrition Examination Suryey is based upon a complex sample design, the assumptions of many statistical tests and routinely available statistical programs are not met. For this reason, when estimates of the variances of statistics from HANES are computed, the technique of estimation must be based upon complex sampling theory. In order to provide the user with the capability of estimating the complex sample variances, we have provided Strata and Primary Sampling Unit (PSU) codes on the HANES user tapes in tape positions 194-198. However, these codes are suitable for making variance estimates only for examination locations 1-65 and 1-100. To compute variance estimates for examination locations 1-35 or 66-100, it is necessary to recode the current Strata-PSU codes according to the specifications that follow. The resultant recoded Strata-PSU codes should be used only for locations 1-35 and 66-100.

One computer program that should be widely available sometime around the summer of 1978 as part of the Statistical Analysis System (available from the SAS Institute, Inc., Post Office Box 10066, Raleigh, North Carolina 27605) is capable of using the Strata-PSU codes provided for HANES to compute complex sample variances. Other programs may also be available.

In those Strata, referred to as certainty or self-representing Strata, the PSU codes are actually the segment numbers. Neither the Strata codes nor the PSU codes are the original codes used in the formation of the HANES sample design, but are none-the-1ess a unique recoding of the original codes. For further discussion of the sample design of HANES, the user should consult the publications of the National Center for Health Statistics-Series 1 -Nos. 10a and 14 and the detailed note for tape positions 158-193.

Recode Specifications for Strata-PSU Codes
First.--Create a file with only those records in the file for examination locations 1-35.*

Second. - -Retain the original Strata-PSU codes in Strata 7-10 and 13 in the original form as the recoded Strata-PSU codes.

Third, --Recode the remaining strata according to the chart below.
Fourth.--Repeat the process for examination locations 66-100.*

01d Strata \#
(tape positions 194-195) New Strata \# New PSU \#

| 01 | 01 | 001 |
| :--- | :--- | :--- |
| 02 | 01 | 002 |
| 03 | 03 | 001 |
| 06 | 03 | 002 |
| 04 | 04 | 001 |
| 05 | 04 | 002 |
| 11 | 11 | 001 |
| 12 | 11 | 002 |
| 14 | 14 | 001 |
| 21 | 14 | 002 |
| 15 | 15 | 001 |
| 16 | 15 | 002 |
| 17 | 17 | 001 |
| 20 | 17 | 002 |
| 18 | 18 | 001 |
| 19 | 18 | 002 |
| 22 | 22 | 001 |
| 25 | 22 | 002 |
| 23 | 23 | 001 |
| 24 | 23 | 002 |
| 26 | 26 | 001 |
| 27 | 26 | 002 |
| 28 | 28 | 001 |
| 29 | 28 | 002 |
| 30 | 30 | 001 |
| 35 | 30 | 002 |
| 31 | 31 | 001 |
| 32 | 31 | 002 |
| 33 | 33 | 001 |
| 34 | 33 | 002 |

*See detailed note for tape positions 158-193.

## Tape Characteristics

Title: Dental Tape
Catalog Number: 4235
Data Set Name: HEHANESI.DU423505
Record Length: 500
Blocksize: 4000
Number of Records: 20749
Number of Reels: 1
Recording Mode: Fixed Block, EBCDIC
Channel: 9 Track
Created by: Division of Health Examination Statistics National Center for Health Statistics Hyattsville, Maryland

## General Notes


#### Abstract

Demographic Information: An advance letter, announcing the forthcoming arrival of an interviewer from the U.S. Bureau of the Census, was mailed to each household that fell into the sample area. The interviewer subsequently visited the household to ascertain its composition and to administer a questionnaire, the primary purpose of which was to obtain demographic information. The questionnaire was administered to each potential sample person that was available and competent enough to respond to questions. In the event that a potential sample person was not at home at the time of interview, any responsible adult in the household was asked to respond to the questions for the absent person.


Demographic information for each of the examinees appears in tape positions 1-200.

Dental Examination: The dental examiners attempted to derive their findings uniformly by following a written set of objective standards in which they had been carefully trained. The standards were guidelines that, in effect, narrowed the range of examiner variability by eliminating many of the borderline or questionable conditions that are frequently a source of disagreement. To avoid other sources that might result in systematic bias, the dentist did not
dry or isolate teeth, remove oral debris and calculus, or probe any tooth surface that did not have an overt sign of decay.

The dentist dictated the condition of each tooth present to a trained recorder (health technician). The teeth were classified as sound, filled, decayed, filled-defective, and nonfunctional. Missing permanent teeth were classified under one of the following four categories: unerupted, carious extraction, accidental loss, and orthodontic extraction. When missing teeth were replaced on a fixed or partial denture, the tissue under the replacement as well as the replacement itself, was rated. When no natural teeth remained in the jaw, the condition of the jaw and the status of the artificial replacement, when present, were recorded.

The next step of the examination was an assessment of the periodontal structures and the status of oral hygiene. The Periodontal Index was used to assess the presence or absence of periodontal disease. By this system of classification, scores were assigned according to the extent of gingival inflammation, the presence or absence of periodontal pockets, and the firmness of a tooth in its socket. To assess oral hygiene, scores were recorded for all or any of six predesignated teeth that were present. The scores
indicated the amount of debris and the amount of calculus on selected surfaces. Other conditions such as bleeding gums, diffuse marginal inflammation, swollen red papillae, and recession were also recorded.

The occlusion of all persons age 6-21 years was appraised by a series of counts and measurements. Anteroposterior position of the lower jaw in relation to the upper jaw was recorded. Counts were made of teeth in crossbite and teeth that were malaligned. Measurements were made in the anterior area of the jaws of overjet, mandibular protrusion, overbite, and openbite.

An enamel biopsy was taken on persons who had a natural upper incisor present with a front surface free of cavities and fillings. The enamel sample was "polished off" from an area about one-eighth of an inch in diameter and to a depth of approximately . 0002 inch.

The dental examiner, using his best clinical judgment, estimated the dental treatment needed by every sample person. In so doing, he took into consideration the status of oral hygiene and periodontal disease, the quantity and quality of past dental care, the responses to questions asked at the beginning of the examination about chewing and eating difficulties, the age of the individual, and the probable benefit of each specific treatment plan to the individual's health and nutrition. The treatment recommendation included various
procedures ranging from a simple filling to extraction of all remaining teeth and denture construction.

Other Dental Data: Other information relating to the teeth was obtained from the Health Care Needs Questionnaire and can be found in tape positions 277-303 and 517-547 of the Health Care Needs, General Medical History and Supplements on Respiratory and Cardiovascular Data Tape, catalog number 4091.

## DEMOGRAPHIC DATA SUMMARY - HANES I

TapePositions
Sample sequence number ..... 1
Size of place ..... 10
SMSA-not SMSA ..... 11
Type of living quarters ..... 12
Land usage ..... 13
If rural, asked - How many acres of land are included ..... 14
If. 10 acres or more asked - Sale of crops, etc. amount to $\$ 50$ or more ..... 15
If 10 acres or less asked - Sale of crops, etc. amount to $\$ 250$ or more ..... 16
Age - head of household ..... 17
Sex - head of household ..... 19
Highest grade attended - head of household ..... 20
Race - head of household ..... 22
Total number of persons in household ..... 23
Total sample persons in household ..... 25
Number of rooms in house ..... 27
Is there piped water ..... 28
If yes, is there hot and cold piped water ..... 29
If yes to piped water - Does house have a sink with piped water ..... 30
Does house have a range or cook stove ..... 31
Does house have a refrigerator. ..... 32
Are kitchen facilities used by anyone not living in household ..... 33
Total family income group ..... 34
NOTE: The following income questions were asked only if 'Total Family Income" was less than \$7,000
During Past Year Did you or Any Members of Your Family Receive Money From:
Wages or salaries ..... 36
If yes - How much altogether before deductions ..... 37
Social Security or Railroad Retirement ..... 41
If yes - How much altogether ..... 42
Welfare payments or other public assistance ..... 46
If yes - How much altogether ..... 47
Unemployment or Workman's Compensation ..... 51
If yes - How much altogether ..... 52
Government employee pensions or private pensions ..... 56
If yes - How much altogether ..... 57
Dividends, interest or rent ..... 61
If yes - How much altogether ..... 62
Net income from own non-farm business, professional practice or partnership ..... 66
If yes - How much altogether ..... 67
Net income from a farm ..... 71
If yes - How much altogether ..... 72
Veteran's payments ..... 6
If yes - How much altogether ..... 77
Alimony, child support or contributions from persons not living in household ..... 81
If yes - How much altogether ..... 82
Any other income ..... 86
If yes - How much altogether ..... 87
Total amount ..... 91
Family unit code ..... 95
Relationship to head of household ..... 100
Age at interview ..... 101
Race of examined person ..... 103
Sex of examined person ..... 104
Marital status ..... 105
Date of birth (month and year) ..... 106
Place of birth ..... 110
Highest grade of regular school ever attended ..... 112
Did he finish the grade ..... 114
Is he attending school now ..... 115
Has he ever attended a school of any kind ..... 116
If yes - What kind of school ..... 117
Is any language other than English frequently spoken in the household ..... 118
If yes - What language ..... 119
What is your main ancestry or national origin ..... 120
What was he doing most of past three months ..... 122
If "something else" - What was he doing ..... 123
If "keeping house" or "something else" - Did he work at a job or business at any time during the past three months ..... 124
If "working" - Did he work full-time or part-time ..... 125
Did he work at any time last week or the week before (not around house) ..... 126
If no - Even though he did not work during that time, does he have a job or business ..... 127
Tape Positions
Was he looking for work or on lay-off from a job ..... 128
If yes - Which ..... 129
Class of worker ..... 130
If self-employed in "own" business and not a farm, is the business incorporated ..... 131
Business or industry code ..... 132
Occupation code ..... 135
Date of examination ..... 138
Age at examination ..... 144
Farm/non-farm ..... 146
Poverty index ..... 147
Region ..... 150
FOOD PROGRAMS APPLICABILITY ..... 151
Are you certified to participate in the food stamp program? ..... 152
Are you buying food stamps now? ..... 153
What is the main reason you aren't participating in the program? ..... 154
Are you certified to participate in the commodity distribution program? ..... 155
Are you receiving commodity foods now for your family? ..... 156
Why aren't you participating in the program? ..... 157
SAMPLE WEIGHTS ..... 158
STRATA - Primary Sampling Unit (PSU) ..... 194

DENTAL TAPE SUMMARY - HANES I
Tape
Positions
CATALOG NUMBER - 4235 ..... 201
Denture Status
Upper arch ..... 211
Lower arch ..... 212
Indices
Simplified Debris ..... 213
Simplified Calculus ..... 216
Simplified Oral Hygiene ..... 219
Periodontal Index for Upper Arch ..... 222
Periodontal Index for Lower Arch ..... 225
Periodontal Index for Mouth ..... 228
Periodontal Classification, Upper Arch ..... 231
Periodontal Classification, Lower Arch ..... 232
Periodontal Classification, Mouth ..... 233
Total Permanent Teeth Present ..... 234
(Upper Arch, Lower Arch, Mouth)
Total Normal Teeth Present ..... 240
(Upper Arch, Lower Arch, Mouth)
Total Permanent Teeth Erupted ..... 246
(Upper Arch, Lower Arch, Mouth)
Total Non-Functional Carious Permanent Teeth Present ..... 252
(Upper Arch, Lower Arch, Mouth)
Total Decayed Permanent Teeth ..... 258
(Upper Arch, Lower Arch, Mouth)
Total Missing Permanent Teeth ..... 264(Upper Arch, Lower Arch, Mouth)
Total Teeth Missing for Unknown Reason ..... 270
(Upper Arch, Lower Arch, Mouth)
Total Teeth Extracted for Reason Other than Caries ..... 276
Total Filled Permanent Teeth Without Decay ..... 278
(Upper Arch, Lower Arch, Mouth)
Total Filled Defective Permanent Teeth ..... 284
(Upper Arch, Lower Arch, Mouth)
Sum of Decayed, Missing and Filled Permanent Teeth ..... 290
(Upper Arch, Lower Arch, Mouth)
TapePositions
Total Teeth Replaced on Satisfactory Fixed Bridge ..... 296
(Upper Arch, Lower Arch, Mouth)
Total Teeth Replaced on Defective Fixed Bridge ..... 302
(Upper Arch, Lower Arch, Mouth)
Total Teeth Replaced on Satisfactory Removable Partial Denture. ..... 308
(Upper Arch, Lower Arch, Mouth)
Total Teeth Replaced on Defective Removable Partial Denture. ..... 314
(Upper Arch, Lower Arch, Mouth)
Total Primary Teeth Present ..... 320
(Upper Arch, Lower Arch, Mouth)
Total Normal Primary Teeth Present ..... 326
(Upper Arch, Lower Arch, Mouth)
Total Decayed Primary Teeth. ..... 332
(Upper Arch, Lower Arch, Mouth)
Total Non-Functional Carious Primary Teeth ..... 338
(Upper Arch, Lower Arch, Mouth)
Total Unerupted Primary Teeth for Ages 1-2 Years ..... 344
Total Filled Primary Teeth Without Decay ..... 346
(Upper Arch, Lower Arch, Mouth)
Filled Defective Primary Teeth ..... 352
(Upper Arch, Lower Arch, Mouth)
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Treatment Needs
No Apparent Need for Dental Care ..... 364
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Severe Malocclusion Treatment ..... 368
Decayed Permanent Teeth ..... 369
Number of 1-Surface Fillings ..... 370
Number of 2-Surface Fillings ..... 372
Number of 3-(or more)Surface Fillings ..... 374
Number of Extractions Indicated. ..... 376
Extractions, Periodontal Disease. ..... 378
Number of Teeth to be Extracted ..... 379
Extractions, Other Reason ..... 381
Number of Teeth to be Extracted ..... 382
Fixed Bridges and/or Partial Removable Dentures Indicated for Replacing Teeth. ..... 384
Number of Upper Teeth ..... 385
Number of Lower Teeth ..... 387
Number of Bridges ..... 389
Number of Partials ..... 390
Repair or Reline of Denture or Bridge ..... 391
Repair Upper ..... 392
Repair Lower. ..... 393
Reline Upper. ..... 394
Reline Lower. ..... 395
Construct Full Dentures (need/no need) ..... 396
What to Construct ..... 397
Decayed Primary Teeth (need/no need) ..... 398
Number of 1-Surface Fillings ..... 399
Number of 2-Surface Fillings ..... 401
Number of 3-(or more)Surface Fillings ..... 403
Number of Extractions Indicated ..... 405
Occlusion Data
Buccal Segment Relationship
Right (Permanent/Primary) ..... 407
Left (Permanent/Primary) ..... 409
Posterior Crossbite
Right buccal ..... 411
Right lingual ..... 412
Left buccal ..... 413
Left lingual ..... 414
Incisor Vertical Relationship Openbite/Overbite ..... 415
HLD Index
Overjet ..... 416
Mandibular Protrusion ..... 418
Overbite ..... 420
Openbite ..... 422
Malaligned Teeth
Applicable/Not applicable ..... 424
Upper Anterior-minor ..... 425
Upper Anterior-major ..... 426
Upper Posterior-minor ..... 427
Upper Posterior-major ..... 428
TapePositions
Malaligned Teeth
Lower Anterior-minor ..... 429
Lower Anterior-major ..... 430
Lower Posterior-minor ..... 431
Lower Posterior-major ..... 432
Orthodontic Appliances ..... 433
Was Biopsy Done ..... 434
Depth in microns ..... 435
Parts per Million Fluoride. ..... 439
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When you eat, do you use an upper plate? ..... 444
When you eat, do you use a lower plate? ..... 445
Interview Questions
Do you have any trouble chewing steaks, chops or firm meats? ..... 446
Do you have any trouble biting apples, or corn-on-the-cob? ..... 447
Do you have any trouble biting or chewing any other foods? ..... 448
Four or More Pairs of Opposing Serviceable Posterior Teeth ..... 449
Other Conditions - Indicators of Vitamin C Deficiency Bleeding Gums ..... 450
Diffuse Marginal Inflammation ..... 451
Swollen Red Papillae ..... 452
Recession ..... 453

DEMOGRAPHIC DATA TAPE
( $\mathrm{n}=20749$ )

héalth and nutrition examination survey (hanes i)

| Item <br> 1 | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | hanes I Data <br> Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { ' } \\ & \text { N } \\ & 1 \end{aligned}$ | 15 | 1 | If 10 acres or more, asked if Sale of Crops, Etc. Amount to $\$ 50$ or more? $\begin{aligned} & 2 \text { - Yes } \\ & 4 \text { - No } \\ & 9 \text { - Not applicable } \end{aligned}$ | $\begin{array}{r} 1160 \\ 772 \\ 18817 \end{array}$ | Household Questionnaire |
|  | 16 | 1 | $\begin{aligned} & \text { If } 10 \text { acres or less, asked if } \\ & \text { Sale of Crops, Etc. Amount to } \$ 250 \text { or more? } \\ & \hline 3 \text { - Yes } \\ & 5 \text { - No } \\ & 9 \text { - Not applicable } \end{aligned}$ | $\begin{array}{r} 131 \\ 5073 \\ 15545 \end{array}$ | Household Questionnaire |
|  | 17-18 | 2 | Age - Head of Household 16-92 as given <br> 00 B1ank, but applicable Sex' - Head of Household | 20744 5 | Household Questionnaire Household Questionnaire |
|  | 19 | 1 | 1 - Male <br> 2 - Female | 16660 4089 |  |
|  | 20-21 | - 2 | Highest Grade Attended - Head of Household 10 - None | 223 | Household Questionnaire |
|  |  |  | $10=$ None 21 - 1st grade | 82 |  |
|  |  |  | 22-2nd grade | 190 379 |  |
|  |  |  | 23 - 3rd grade | 427 |  |
|  |  |  | 24 - 4th grade | 421 |  |
|  |  |  | 25 - 5th grade | 681 |  |
|  |  |  | $26-6 t h ~ g r a d e ~$ $27-7$ th grade | 702 |  |
|  |  |  | 28 - 8th grade | 2405 |  |
|  |  |  | 31 - 9th grade | 1121 |  |
|  |  |  | 32 - 10th grade | 1458 |  |
|  |  |  | 33 - 11th grade | 1133 |  |
|  |  |  | 34 - 12th grade | 6153 |  |
|  |  |  | 41 - First year of college | 1081 |  |
|  |  |  | 42 - Second year of college | 485 |  |
|  |  |  | 43 - Third year of college | 1317 |  |
|  |  |  | 45 - Fourth year of college | 1084 |  |
|  |  |  | 88 - Blank, but applicable | 661 |  |

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

héalth and nutrition examination survey (hanes i)


| Item $0$ $\qquad$ | Tape Loc. | $\begin{gathered} \text { No. of } \\ \text { Positions } \end{gathered}$ | ITEM DESCRIPTION \& CODES | Control <br> Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \\ & N \\ & \mathbf{N} \\ & \mathbf{1} \end{aligned}$ | 37-40 | 4 | If yes to above, how much altogether before deductions? 0001-8000 - As given <br> 8888 - Blank, but applicable <br> 9999 - Not applicable | $\begin{array}{r} 4468 \\ 884 \\ 15397 \end{array}$ | Household Questionnaire |
|  | 41 | 1 | Social Security or Railroad Retirement? <br> 1-Yes <br> 2-No <br> 8 - Blank, but applicable <br> 9 - Not app1icable | $\begin{array}{r} 2914 \\ 5226 \\ 595 \\ 12014 \end{array}$ | Household Questionnaire |
|  | 42-45 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - Biank, but applicab1e <br> 9999 - Not applicable | $\begin{array}{r} 2852 \\ 657 \\ 17240 \end{array}$ | Household Questionnaire |
|  | 46 | 1 | Welfare. Payments or Other Public Assistance? <br> 1-Yes <br> 2 - No <br> 8 - Blank, but applicable <br> 9 - Not applicable | $\begin{array}{r} 2414 \\ 5716 \\ 605 \\ 12014 \end{array}$ | Household Questionnair |
|  | 47-50 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - B1ank, but applicable <br> 9999 - Not applicable | $\begin{array}{r} 2383 \\ 636 \\ 17730 \end{array}$ | Household Questionnalrı |
|  | 51 | 1 | Unemployment or Workmen's Compensation? <br> 1-Yes <br> 2 - No <br> 8 - Blank, but app1icable <br> 9 - Not applicable | $\begin{array}{r} 441 \\ 7690 \\ 604 \\ 12014 \end{array}$ | Household Questionnais |


| Item $1$ | Tape Loc. | No, of Positions | ITEM DESCRIPTION \& CODES | Control <br> Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \prime \\ & N \end{aligned}$ | 52-55 | 4 | If yes to above, how much altogether? 0001-6999 - As given <br> 8888 - B1ank, but app11cable <br> 9999 - Not applicable | $\begin{array}{r} 423 \\ 622 \\ 19704 \end{array}$ | Household Questionnaire |
|  | 56 | 1 | Government Employee Pensions or Private Pensions? <br> 1-Yes <br> 2 - No <br> 8 - Blank, but applicable <br> 9 - Not applicable | $\begin{array}{r} 569 \\ 7561 \\ 605 \\ 12014 \end{array}$ | Household Questionnaire |
|  | 57-60 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - Biank, but applicable <br> 9999 - Not app1icable | $\begin{array}{r} 553 \\ 621 \\ 19575 \end{array}$ | Household Questionnaire |
|  | 61 | 1 | Dividends, interest or rent? <br> 1-Yes <br> 2 - No <br> 8 - Blank, but applicable <br> 9 - Not applicable | $\begin{array}{r} 918 \\ 7212 \\ 602 \\ \mathbf{1} 2017 \end{array}$ | Household Questionnaire |
|  | 62-65 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - Blank, but applicable <br> 9999 - Not applicable | $\begin{array}{r} 870 \\ 650 \\ 19229 \end{array}$ | Household Questionnaire |
|  | 66 | 1 | Net income from own non-farm business, professional practice or partnership? <br> 1-Yes <br> 2 - No <br> 3 - Loss <br> 8 - Blank, but applicable <br> 9 - Not applicable | $\begin{array}{r} 350 \\ 7772 \\ 17 \\ 596 \\ 12014 \end{array}$ | Household Questionnaire |

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)


| Item <br> 1 | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 82-85 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - Blank, but app1icable <br> 9999 - Not applicable | $\begin{array}{r} 426 \\ 615 \\ 19708 \end{array}$ | Household Questionnaire |
|  | 86 | $\cdots 1$ | Any other income? <br> 1 - Yes <br> 2 - No <br> B - Blank, but applicable <br>  | $\begin{array}{r} 325 \\ 1799 \\ 607 \\ 12018 \end{array}$ | Household Questionnaire |
| N' | 87-90 | 4 | If yes to above, how much altogether? <br> 0001-6999 - As given <br> 8888 - B1ank, but applicab1e <br> 9999 - Not applicable | $\begin{array}{r} 313 \\ 619 \\ 19817 \end{array}$ | Household Questionnaire |
|  | 91-94 | - $4^{\text {i }}$ | Total Amount (Total of Positions 37-90) <br> 0000-6999 - As given <br> 8888'L Blank, but applicable <br> 9999. - Not applicable | $\begin{array}{r} 7676 \\ 1060 \\ 12013 \end{array}$ | Household Questionnaire |
|  | 95-99 | 5 | $\frac{\text { FAMILY UNIT CODE }}{00001-23180}$ | 20749 | Computer generated See Detailed Notes |
|  | 100 | 1 | Relationship to Head of Household <br> 1-Head (1 person living alone or with non-relatives) <br> 2 - Head (2 or more related persons in family) <br> 3-Wife <br> 4 - Child <br> 5 - Other relative | $\begin{array}{r} 1920 \\ 4912 \\ 5256 \\ 7733 \\ 928 \end{array}$ | Household Questionnaire |
|  | 101-2 | 2 | $\frac{\text { Age at Interyiew }}{01-74-\text { As given }}$ | 20749 | Household Questionnaire |



HEALTH AND NUTRITION EXAMINATION SURVEY (HANBS I)


| Item . | Tape Loc | No. of Positions | ITEM DESCRITTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \\ & N \\ & \end{aligned}$ | 116 | 1 | Has he ever attended a school of any kind? <br> 1-Yes <br> 2 - No <br> 8 - Blank, but applĩcable <br> 9 - Not app1icable | $\begin{array}{r} 668 \\ 1127 \\ 0 \\ 18954 \end{array}$ | Household Questionnaire |
|  | 117 | 1 | If yes, what kind of echool? <br> 1 - Nursery <br> 2 - Kindergarten <br> 3 - Other <br> 4 - Headstart <br> 5 - Daycare <br> 8 - Blank, but appliceble <br> 9 - Not applicable | 150 362 73 45 38 0 20081 | Household Questionnaire |
|  | 118 | 1 | Is any language other than English frequently spoken in the household? <br> 1 - Yes <br> 2 - No <br> 8 - Blank, but applicable | $\begin{array}{r} 2437 \\ 18110 \\ 202 \end{array}$ | Household Questionnaire |
|  | 119 | 1 | If yes, what language? <br> 0-German <br> 1 - Italtan <br> 2 - French <br> 3-Polish <br> 4 - Russian <br> 5 - Spanish <br> 6 - Chinese <br> 7 - Other language <br> 8 - Blank, but app1icable <br> 9 - Not aṕplicable | 146 137 410 82 19 1202 31 400 212 18110 | Household Questionnaire |


| Item I | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 120-21 | 2 | What is your main ancestry or national origin? | 3385 | Household Ouestionnaire |
|  |  |  | 00-German | 3389 2592 |  |
|  |  |  | 01 - Irish | 643 |  |
|  |  |  | 02 - Italian | 1104 |  |
|  |  |  | 03 - French | 525 |  |
|  |  |  | 04 - Polish | 188 |  |
|  |  |  | 05 - Russian | 2541 |  |
|  |  |  | 06 - English | 436 |  |
|  |  |  | 07 - Spanish | 685 |  |
|  |  |  | 08 - Mexican | 40 |  |
| 1 |  |  | 09 - Chinese | 45 |  |
| $\stackrel{\sim}{0}$ |  |  | 10 - Japanese <br> 11 - American Indian | 352 |  |
| 1 |  |  | 11 - American Indian <br> 12 - Negro | 4173 56 |  |
|  |  |  | 13 - Jewish | 1455 |  |
|  |  |  | 14 - American | 1956 |  |
|  |  |  | 15 - Other | 66 |  |
|  |  |  | 88 - Blank, but applicable <br> 99 - Don't know | 507 |  |
|  | 122 | 1 | What was he doing most of jast three months? | 6371 | Household Questionnaire |
|  |  |  | 1 - Working | 4869 |  |
|  |  |  | 2 - Keeping house | 2712 |  |
|  |  |  | 3 - Something else | 27 |  |
|  |  |  | 8 - Blank, but applicable <br> g. Not applicable | 6770 |  |
|  | 123 | 1 | If "something else" from above, what was he doing? |  | Household Questionnaire |
|  |  |  | $\frac{\text { If "something }}{0-\text { Laid off }}$ | 28 1320 |  |
|  |  |  | 1 - Retired | 1320 |  |
|  |  |  | 2 - Student | 117 |  |
|  |  |  | 3 - Other | 123 |  |
|  |  |  | 4- I11 | 56 |  |
|  |  |  | 5 - Staying home | 57 |  |
|  |  |  | 6 - Looking for work | 220 |  |
|  |  |  | - | 26 |  |
|  |  |  | $\begin{aligned} & 8 \text { - Blank, but app } \\ & 9 \text { - Not applicabie } \end{aligned}$ | 18010 |  |



healit and nutrition exdinnation survey (lanes i)

| Item $\dagger$ | Tape Loc. | $\begin{aligned} & \text { No. of } \\ & \text { Positions } \end{aligned}$ | ITEM DESCRIPTION \& CODES | Control Counts | LANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 144-45 | 2 | $\frac{\text { Age at Examination }}{01-75-\text { As given }}$ | 20749 | Computer generated |
|  | 146 | 1 | $\begin{aligned} & \frac{\text { Farm }}{1-\text { Farm }} \\ & 2-\text { Nonfarm } \end{aligned}$ | $\begin{array}{r} 1291 \\ 19458 \end{array}$ | Computer generated See Detailed Notes |
|  | 147-49 | 3 | Poverty Index ( $\mathrm{X}, \mathrm{XX}$ ) <br> 001-997 - As given <br> 998 - Index computed 998 or greater <br> 999 - Unknown | $\begin{array}{r} 20002 \\ 25 \\ 722 \end{array}$ | Computer generated See Detailed Notes |
| $\underset{\sim}{\omega}$ | 150 | 1 | Region <br> 1 - Northeast <br> 2 - Midwest <br> 3 - South <br> 4-West | $\begin{aligned} & 4442 \\ & 5101 \\ & 5603 \\ & 5603 \end{aligned}$ | Computer generated See Decalled Notes |
|  | 151 | 1 | FOOD PROGRAMS APPLICABILITY <br> 1 - Not applicable <br> 2 - No program available <br> 3 - Food stamps available <br> 4 - Commodities available <br> 8 - Blank, but applicable | $\begin{array}{r} 14683 \\ 112 \\ 5142 \\ 760 \\ 52 \end{array}$ | Food Progriams Quest. |
|  | 152 | 1 | Are, you certified to participate in the food stamp program? <br> 1 - Yes <br> 2 - No <br> 9 - Don't know <br> Blank | $\begin{array}{r} 2374 \\ 1934 \\ 126 \\ 16315 \end{array}$ | Food Programg Queat. |


| $\begin{gathered} \text { Irem } \\ \# \end{gathered}$ | Tape Loc. | No, of Positions | ITEM DESCRIPTION \& CODES | Control Counts | MANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\underbrace{\omega}_{\infty}$ | 153 | 1 | ```Are you buying stamps now? 1 - Yes, regularly 2 - Yes, occasionally 3-No 8 - Blank, but applicable Blank``` | $\begin{array}{r} 1965 \\ 89 \\ 307 \\ 13 \\ 18375 \end{array}$ | Food Programs Quest. |
|  | 154 | 1 | What is the main reason you aren't participating in the program? 1 - No need <br> 2 - Not enough money at the time <br> 3 - No transportation <br> 4 - Pride <br> 5 - Other <br> 8 - Blank, but applicable <br> Blank | $\begin{array}{r} 33 \\ 121 \\ 16 \\ 8 \\ 111 \\ 18 \\ 20442 \end{array}$ | Food Programs Quest. |
|  | 155 | 1 | $\begin{aligned} & \text { Are you certified to participate in the commodity distribution program? } \\ & \hline 1 \text { - Yes } \\ & 2-\text { No } \\ & 9 \text { - Don't know } \\ & \text { Blank } \end{aligned}$ | $\begin{array}{r} 215 \\ 423 \\ 25 \\ 20086 \end{array}$ | Food Programs Quest. |
|  | 156 | 1 | Are you receiving commodity foods now for your family? <br> 1 - Yes, regularly <br> 2 - Yes, occasionally <br> 3 - No <br> 8 - Blank, but applicable <br> Blank | 159 14 39 3 20534 | Food Programs Quest. |
|  | 157 | 1 | Why aren't you participating in the program? <br> 1 - No need <br> 2 - No transportation <br> 3 - Pride <br> 4 - Other <br> 8 - Blank, but applicable <br> Blank | $\begin{array}{r} 16 \\ 5 \\ 2 \\ 15 \\ 1 \\ 20710 \end{array}$ | Food Programs Quest. |


| Ltem \| | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Countr | HANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathbf{1} \\ & \stackrel{4}{+} \\ & \mathbf{1} \end{aligned}$ |  |  | SAMPLE WEIGHTS |  |  |
|  | 158-63 | 6 | Detailed Persons, Location 01-35 Blanks | $\begin{array}{r} 1892 \\ 18857 \end{array}$ | See Detailed Notes |
|  | 164-69 | 6 | ^11 Sample Persons, Locations 01-35 B1anks | $\begin{aligned} & 10127 \\ & 10622 \end{aligned}$ | See Detailed Notes |
|  | 170-75 | 6 | Detailed Persons, Locations 01-65 Blanks | $\begin{array}{r} 3854 \\ 16895 \end{array}$ | See Detailed Notes |
|  | 176-81 | 6 | A11 S̄ample Persons, Locations 01-65 Blanke | $\begin{array}{r} 20749 \\ 0 \end{array}$ | See Detailed Notes |
|  | $\left\{\begin{array}{l} 182- \\ 193 \end{array}\right.$ | 12 | Data User Work Area |  |  |
|  | $\begin{aligned} & 194- \\ & 195 \end{aligned}$ | 2 | $\text { Strata } 1 /$ |  |  |
|  | $\begin{aligned} & 196- \\ & 198 \end{aligned}$ | 3 | $\text { Primary Sampling Units } 1 /$ |  |  |
|  | $\begin{aligned} & 199- \\ & 200 \end{aligned}$ | 2 | Data User Work Area |  |  |
|  |  |  | 1/ Use only for producing variance estimates for examination locations $1-65$ or 1-100. See the General Note titled "Variance Estimation" for producing variance estimates for examination locations 1-35 or 66-100. |  |  |

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)
DENTAL TAPE DESCRIPTION
( $\mathrm{n}=20749$ )

| Item \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 201- \\ & 204 \end{aligned}$ | 4 | Catalog Number - 4235 |  | Dental Examination |
|  | $\begin{aligned} & 205- \\ & 210 \end{aligned}$ | 6 | Blank - Data user work area <br> DENTURE STATUS |  |  |
|  | 211 | 1 | ```Upper arch 0 - Dentulous 1 - Edentulous, denture absent 2 - Edentulous, denture present 3 - Edentulous, denture defective 4 - Edentulous, denture status unknown 6 - No teeth erupted, ages 1-2``` | $\begin{array}{r} 16717 \\ 318 \\ 2416 \\ 818 \\ 447 \\ 33 \end{array}$ |  |
| $w$ $\stackrel{1}{1}$ 1 | 212 | 1 | ```Lower arch 0 - Dentulous 1 - Edentulous, denture absent 2 - Edentulous, denture present 3 - Edentulous, denture defective 4 - Edentulous, denture status unknown 6 - No teeth erupted, ages 1-2 INDICES: POSITIONS 213-233``` | 17962 <br> 429 <br> 1530 <br> 578 <br> 216 <br> 34 | See Detailed Notes. |
|  | $\begin{aligned} & 213- \\ & 215 \end{aligned}$ | 3 | ```Simplified Debris Index (DI-S) 0.00-3.00 - (Decimal point not on tape) 999 - Data missing or none of teeth used for DI-S were present``` | $\begin{array}{r} 13981 \\ 6768 \end{array}$ |  |
|  | $\begin{aligned} & 216- \\ & 218 \end{aligned}$ | 3 | ```Simplified Calculus Index (CI-S) 0.00-3.00 -. (Decimal point not on tape) 999 - Data missing or none of teeth used for CI-S were present``` | $\begin{array}{r} 13981 \\ 6768 \end{array}$ |  |
|  | $\begin{aligned} & 219- \\ & 221 \end{aligned}$ | 3 | $\begin{aligned} & \frac{\text { Simplified Oral Hygiene Index (OHI-S) }}{0.00-6.00-\text { (Decimal point not on tape) }} \\ & 999 \text { - Data missing or none of teeth used for OHI-S were present } \end{aligned}$ | $\begin{array}{r} 13981 \\ 6768 \end{array}$ |  |




| Item \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total Missing Permanent Teeth (because of caries) (M) |  | Dental Examination |
|  | 264-5 | 2 | Upper Arch: 00-16 as given | 20749 |  |
|  | 266-7 | 2 | Lower Arch: 00-16 as given | 20749 |  |
|  | 268-9 | 2 | Mouth: 00-32 as given | 20749 |  |
|  |  |  | Total Teeth Missing for Unknown Reason (MUNK) |  |  |
|  | 270-1 | 2 | Upper Arch: 00-08 as given | 20749 |  |
|  | 272-3 | 2 | Lower Arch: 00-08 as given | 20749 |  |
|  | 274-5 | 2 | Mouth: 00-11 as given | 20749 |  |
|  |  |  | Total Teeth Extracted for Reason Other than Caries (XTR) |  |  |
|  | 276-7 | 2 | 00-20 as given | 20749 |  |
| $\begin{gathered} \omega \\ \infty \\ 1 \end{gathered}$ |  |  | Total Filled Permanent Teeth Without Decay (F) |  |  |
|  | 278-9 | 2 | Upper Arch: 00-16 as given | 20749 |  |
|  | 280-1 | 2 | Lower Arch: 00-15 as given | 20749 |  |
|  | 282-3 | 2 | Mouth: 00-28 as given | 20749 |  |
|  |  |  | Total Filled Defective Pemanent Teeth (FD) |  |  |
|  | 284-5 | 2 | Upper Arch: 00-07 as given | 20749 |  |
|  | 286-7 | 2 | Lower Arch: 00-08 as given | 20749 |  |
|  | 288-9 | 2 | Mouth: 00-10 as given | 20749 |  |
|  |  |  | Sum of Decayed (D), Missing (M), and Filled (F) Permanent Teeth (DMF) |  |  |
|  | 290-1 | 2 | Upper Arch: $00-16$ as given | 20749 |  |
|  | 292-3 | 2 | Lower Arch: 00-16 as given | 20749 |  |
|  | 294-5 | 2 | Mouth: 00-32 as given | 20749 |  |
|  |  |  | Total Teeth Replaced on Satisfactory Fixed Bridge (RF) |  |  |
|  | 296-7 | 2 | Upper Arch: 00-07 as given | 20749 |  |
|  | 298-9 | 2 | Lower Arch: 00-07 as given | 20749 |  |
|  | 300-1 | 2 | Mouth: 00-10 as given | 20749 |  |


| Item <br> \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counte | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total Teeth Replaced on Defective Fixed Bridge (R |  | Dental Examination |
|  | 302-3 | 2 | Upper Arch: 00-07 as given | 20749 |  |
|  | 304-5 | 2 | Lower Arch: 00-07 as given | $20749$ |  |
|  | 306-7 | 2 | Mouth: 00-09 as given | $20749$ |  |
|  |  |  | Total Teeth Replaced on Satisfactory Removable Partial Denture (RFD) |  |  |
|  | 308-9 | 2 | Upper Arch: 00-14 as given | 20749 |  |
|  | 310-1 | 2 | Lower Arch: 00-12 as given | 20749 |  |
|  | 312-3 | 2 | Mouth: 00-21 as given | 20749 |  |
|  |  |  | Total Teeth Replaced on Defective Removable Partial Denture (RRD) |  |  |
|  | 314-5 | 2 | Upper Arch: 00-14 as given | 20749 |  |
| 1 | 316-7 | 2 | Lower Arch: 00-14 as given | 20749 |  |
| $\omega_{0}$ | 318-9 | 2 | Mouth: 00-28 as given | 20749 |  |
|  |  |  | Total Primary Teeth Present (PRI) |  |  |
|  | 320-1 | 2 | Upper Arch: 00-10 as given | 20749 |  |
|  | 322-3 | 2 | Lower Arch: 00-10 as given | 20749 |  |
|  | 324-5 | 2 | Mouth: 00-20 as given | 20749 |  |
|  |  |  | Total Normal Primary Teeth Present (NI) |  |  |
|  | 326-7 | 2 | Upper Arch: 00-10 as given | 20749 |  |
|  | 328-9 | 2 | Lower Arch: 00-10 as given | 20749 |  |
|  | 330-1 | 2 | Mouth: 00-20 as given | 20749 |  |
|  |  |  | Total Decayed Primary Teeth (d) (includes filled teeth with carious lesions or defective fillings) |  |  |
|  | 332-3 | 2 | Upper Arch: $00-10$ as given | 20749 |  |
|  | 334-5 | 2 | Lower Arch: $00-10$ as given | 20749 |  |
|  | 336-7 | 2 | Mouth: 00-20 as given | 20749 |  |



HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

| Item \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control <br> Counts | HANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathbf{1} \\ & \stackrel{~}{+} \\ & 1 \end{aligned}$ | 366 | 1 | ```Gingivitis Treatment 0 - No need 1 - Need indicated``` | $\begin{array}{r} 17391 \\ 3358 \end{array}$ | Dental Examination |
|  | 367 | 1 | ```Periodontal Disease Treatment 0 - No need 1 - Need indicated``` | $\begin{array}{r} 18640 \\ 2109 \end{array}$ |  |
|  | 368 | 1 | ```Severe Malocclusion Treatment 0 - No need 1 - Need indicated``` | $\begin{array}{r} 20422 \\ 327 \end{array}$ |  |
|  | 369 | 1 | ```Dacayed Permanent Teeth: Positions 369-377 0 - No need 1 - Needs as given below``` | $\begin{array}{r} 13630 \\ 7119 \end{array}$ |  |
|  | $\begin{aligned} & 370- \\ & 371 \end{aligned}$ | 2 | $\frac{\text { Number of } 1-\text { Surface Fillings }}{00-20 \text { as given }}$ | 20749 |  |
|  | $\begin{aligned} & 372- \\ & 373 \end{aligned}$ | 2 | $\frac{\text { Number of } 2-\text { Surface Fillings }}{00-20 \text { as given }}$ | 20749 |  |
|  | $\begin{aligned} & 374= \\ & 375 \end{aligned}$ | 2 | $\frac{\text { Number of } 3-\text { (or more) Surface Fillings }}{00-20 \text { as given }}$ | 20749 |  |
|  | $\begin{aligned} & 376- \\ & 377 \end{aligned}$ | 2 | $\frac{\text { Number of Extractions Indicated }}{00-27 \text { as given }}$ | 20749 |  |
|  | 378 | 1 | ```Extractions, Periodontal Disease: Positions 378-380 0 - No need 1 - Need indicated``` | $\begin{array}{r} 20080 \\ 669 \end{array}$ |  |

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

| $\begin{gathered} \text { Item } \\ \# \end{gathered}$ | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \\ & \text { N } \\ & 1 \end{aligned}$ | $\begin{aligned} & 379- \\ & 380 \end{aligned}$ | 2 | Number of Teeth to be Extracted 00-31 as given | 20749 | Dental Examination |
|  | 381 | 1 | ```Extractions, Other Reason: Positions 381-383 0 - No need 1 - Need indicated``` | $\begin{array}{r} 20087 \\ 662 \end{array}$ |  |
|  | $\begin{aligned} & 382- \\ & 383 \end{aligned}$ | 2 | Number of Teeth to be Extracted 00-21 as given | 20749 |  |
|  | 384 | 1 | ```Fixed Bridges and/or Partial Removable Dentures Indicated for Replacing Teeth: Positions 384-390 0 - No need 1 - Need indicated``` | $\begin{array}{r} 17532 \\ 3217 \end{array}$ |  |
|  | $\begin{aligned} & 385- \\ & 386 \end{aligned}$ | 2 | $\frac{\text { Number of Upper Teeth }}{00-16 \text { as given }}$ | 20749 |  |
|  | $\begin{aligned} & 387- \\ & 388 \end{aligned}$ | 2 | $\frac{\text { Number of Lower Teeth }}{00-13 \text { as given }}$ | 20749 |  |
|  | 389 | 1 | $\frac{\text { Number of Bridges }}{0-5 \text { as given }}$ | 20749 |  |
|  | 390 | 1 | $\frac{\text { Number of Partials }}{0-4 \text { as given }}$ | 20749 |  |
|  | 391 | 1 | ```Repair or Reline of Denture or Bridge: Positions 391-395 O - No need l - Need indicated``` | $\begin{array}{r} 20154 \\ 595 \end{array}$ |  |
|  | 392 | 1 | Repair Upper <br> 0 - Not applicable <br> 1 - Full denture <br> 2 - Partial denture | $\begin{array}{r} 20649 \\ 77 \\ 23 \end{array}$ |  |





| Item \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \\ & \text { f } \end{aligned}$ |  |  | HLD (Handicapping Labio-Langual Deviations) Index (xx.-mm) |  | Dental Examination |
|  | $\begin{aligned} & 416- \\ & 417 \end{aligned}$ | 2 | $\begin{aligned} & \frac{\text { Overjet }}{00-33-} \text { as given } \\ & 99 \text { - Not applicable } \end{aligned}$ | $\begin{array}{r} 3814 \\ 16935 \end{array}$ |  |
|  | $\begin{aligned} & 418- \\ & 419 \end{aligned}$ | 2 | $\begin{gathered} \text { Mandibular Protrusion } \\ \text { 00-08 - as given } \\ 99 \text { - Not applicable } \end{gathered}$ | $\begin{array}{r} 64 \\ 20685 \end{array}$ |  |
|  | $\begin{aligned} & 420- \\ & 421 \end{aligned}$ | 2 | $\begin{aligned} & \text { Overbite } \\ & 00-11-\text { as given } \\ & 99 \text { - Not applicable } \end{aligned}$ | $\begin{array}{r} 3685 \\ 17064 \end{array}$ |  |
|  | $\begin{aligned} & 422- \\ & 423 \end{aligned}$ | 2 | $\begin{aligned} & \text { Openbite } \\ & \begin{array}{l} \text { 00-20 - as given } \\ 99 \text { - Not applicable } \end{array} \end{aligned}$ | $\begin{array}{r} 175 \\ 20574 \end{array}$ |  |
|  |  |  | Malaligned Teeth |  |  |
|  | 424 | 1 | $\begin{aligned} & \text { Not applicable } \\ & \hline 0-\text { Applicable } \\ & 1-\text { Not applicable } \end{aligned}$ | $\begin{array}{r} 3878 \\ 16871 \end{array}$ |  |
|  | 425 | 1 | $\begin{aligned} & \frac{\text { Upper Anterior }- \text { Minor }}{0-6-\sin \text { given }} \\ & 9 \text { - Not applicable or not given } \end{aligned}$ | $\begin{array}{r} 3858 \\ 16891 \end{array}$ |  |
|  | 426 | 1 | $\begin{aligned} & \frac{\text { Upper Anterior } « \text { Major }}{0-6-\operatorname{as~given~}} \\ & \quad 9 \text { - Not applicable or not given } \end{aligned}$ | $\begin{array}{r} 3862 \\ 16887 \end{array}$ |  |




HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)



There are 65 records in which the only present teeth are nonfunctional carious:

1) In ten of these records all tooth surfaces are decayed and there is no Periodontal disease; in these 10 records the Periodontal index for the arch(es) containing teeth is 999.
2) In the other 55 records, not all of the tooth surfaces are decayed or there is Periodontal disease; in these 55 records the PI for the $\operatorname{arch}(e s)$ containing teeth is in the range $0.00-8.00$.

| Count | Includes | Is a subset of | Overlaps | Not counted elsewhere |
| :---: | :---: | :---: | :---: | :---: |
| PRM | $\mathrm{N}, \mathrm{XD}, \mathrm{D}, \mathrm{F}, \mathrm{FD}$ | PTE | M, DMF |  |
| N |  | PRM, PTE |  |  |
| PTE | PRM, N, XD, D, M, XTR, F, FD, DMF |  | RF, RR , RFD, RRD |  |
| XD |  | PRM, PTE, M, DMF |  |  |
| D | FD | PRM, PTE, DMF |  |  |
| M | XD | PTE, DMF | PRM, RF, RR, RFD, RRD |  |
| MUNK |  |  |  | MUNK |
| XTR |  | PTE | RF, RR, RFD, RRD |  |
| F |  | PRM, PTE, DMF |  |  |
| FD |  | PRM, PTE, D, DMF |  |  |
| DMF | XD, D, M, F, FD | PTE | PRM, RF, RR, RFD, RRD |  |
| RF |  |  | PTE, M, XTR, DMF |  |
| RR |  |  | PTE, M, XTR, DMF |  |
| RFD |  |  | PTE, M, XTR, DMF |  |
| RRD |  |  | PTE, M, XTR, DMF |  |
| PRI | $\mathrm{NI}, \mathrm{d}, \mathrm{e}, \mathrm{f}, \mathrm{fd}$, def |  |  |  |
| NI |  | PRI |  |  |
| d | fd | PRI, def |  |  |
| e |  | PRI, def |  |  |
| DTE |  |  |  | DTE |
| f |  | PRI, def |  |  |
| fd |  | PRI, d, def |  |  |
| def | $\mathrm{d}, \mathrm{e}, \mathrm{f}, \mathrm{fd}$ | PRI |  |  |

NOTE: This is a reference list to show how the counts are related, not how they were constructed. The relationship of each count to all other counts is given where a relationship exists.

## Size of Place

Size of place classification was derived from the 1960 census. According to the definition used in the 1960 census, the urban population was comprised of all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages and towns (except towns in New York, New England, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas; (c) towns in New England and townships in New Jersey and Pennsylvania which contained no incorporated municipalities as subdivisions and had either 2,500 inhabitants or more, or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile; (d) counties in states other than the New England states, New Jersey, and Pennsylvania, that had no incorporated municipalities within their boundaries and had a density of 1,500 persons per square mile; and (e) unincorporated places of 2,500 inhabitants or more not included in any urban fringe. The remaining population was classified as rural.

Urban areas are further classified by population size for places within urbanized areas and other places outside urbanized areas.

## DETAILED NOTES

TAPE POSITION 11

SMSA

A standard metropolitan statistical area is basically a county or a group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000 . In addition to the county or counties containing such a city or cities, contiguous counties are included in an SMSA if, according to the 1960 Census, they are socially and economically integrated with the central city. Each SMSA must include at least one central city, and the complete title of an SMSA identifies the central city or cities.

Race

The race of the respondent was marked by observation and it was assumed the race of all related persons was the same as the respondent unless otherwise learned. The race categories were "White", "Negro" or "other." If the appropriate category could not be marked by observation, then race was asked. Persons of races other than White or Negro, such as Japanese, Chinese, American Indian, Korean, Hindu, Eskimo, etc. were reported as "Other." Mexicans were included with "White" unless definitely known to be American Indian or of other nonwhite race.

TAPE POSITIONS 34-35

## Total Family Income Group

The income group represents the total combined family income for the past twelve (12) months. It includes income from all sources such as wages, salaries, social security or retirement benefits, help from relatives, rent from property and so forth. The income groups were not reconciled to the component parts (tape positions 36-94). The income component parts were not asked when the gross income was greater than $\$ 6,999$ per annum. However, amounts greater than $\$ 6,999$ appear in tape positions $37-40$, 67-70, and 72-75. Some respondents reported a loss of income.from their nonfarm business, professional practice, partnership or farm and this explains why some data fields are greater than $\$ 6,999$, but the individual total in tape positions $91-94$ does not exceed this figure.

## DETAILED NOTES

## TAPE POSITIONS 95-99

## Family Unit Code

All related sample persons in the same family unit have the same computer generated family unit code. This will enable detailed analysis of the individual family unit.

DETAILED NOTES
TAPE POSITIONS 110-111

| UNITED States |  |  | OUTLYING AREAS OF THE U.S. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard Abbreviation | Code | Name of Place | Code |  |
| ALABAMA | Ala. | 01 | American Samoa | 60 |  |
| ALASKA | Alaska | 02 | Canal Zone | 61 |  |
| ARIZONA | Ariz. | 04 | Canton and Enderbury Islands | 62 |  |
| ARKANSAS | Ark. | 05 | Caroline Islands | 63 |  |
| CALIFORNIA | Calif. | 06 | Cook Islands | 64 |  |
| COLORADO | Colo. | 08 | Gilbert and Ellice Islands | 65 |  |
| CONNECTICUT | Conn. | 09 | Guam | 66 |  |
| DELAWARE | De1. | 10 | Johnston Atoll | 67 |  |
| DIST. OF COLUMBIA | D.C. | 11 | Line Islands - Southern | 68 |  |
| FLORIDA | Fla. | 12 | Mariana Islands | 69 |  |
| GEORGIA | Ga. | 13 | Marshall Islands | 70 |  |
| HAWAII | Hawaii | 15 | Midway Islands | 71 |  |
| IDAHO | Idaho | 16 | Puerto Rico | 72 |  |
| ILLINOIS | III. | 17 | Ryukyn Islands - Southern | 73 |  |
| INDIANA | Ind. | 18 | Swan Islands | 74 |  |
| IOWA | Iowa | 19 | Tokelau Islands | 75 |  |
| KANSAS | Kans. | 20 | U.S. Misc. Caribbean | 76 |  |
| KENTUCKY | Ky. | 21 | U.S. Misc. Pacific Islands | 77 |  |
| LOUISIANA | La. | 22 | Virgin Islands | 78 |  |
| MAINE | Maine | 23 | Wake Islands | 79 |  |
| MARYLAND | Md, | 24 | Cuba | 80 |  |
| ASSACHUSETTS | Mass. | 25 | West Indies | 81 |  |
| Michican! | Mict. | 26 |  | 01 |  |
| MINNESOTA | Minn. | 27 | South America | 92 |  |
| MISSISSIPPI | Miss. | 28 | Europe | 93 |  |
| MISSOURI | Mo. | 29 | Africa | 94 |  |
| MONTANA | Mont. | 30 | Asia | 95 |  |
| NEBRASKA | Nebr. | 31 | Australasia | 96 |  |
| NEVADA | Nev. | 32 | Pacific Islands | 97 |  |
| NEW HAMPSHLRE | N. H . | 33 |  |  |  |
| NEW JERSEY | J.J. | 34 |  |  |  |
| NEW MEXICO | N. Mex. | 35 |  |  | . |
| NEW YORK | N. Y. | 36 |  |  |  |
| NORTH CAROLINA | N.C. | 37 |  |  |  |
| NORTH DAKOTA | N. Dak. | 38 |  |  |  |
| OHIO | Ohio | 39 |  |  |  |
| OKLAHOMA | Okla. | 40 |  |  |  |
| OREGON | Oreg. | 41 |  |  |  |
| PENNSYLVANIA | Pa . | 42 |  |  |  |
| RHODE ISLAND | R.I. | 44 |  |  |  |
| SOUTH CAROLINA | S.C. | 45 |  |  |  |
| SOUTH DAKOTA | S. Dak. | 46 |  |  |  |
| TENNESSEE | Tenn. | 47 |  |  |  |
| TEXAS | Tex. | 48 |  |  |  |
| UTAH | Utah | 49 |  |  |  |
| VERMONT | Vt. | 50 |  |  |  |
| IRGINIA | Va. | 51 |  |  |  |
| - AASHINGTON | Wash. | 53 |  |  |  |
| WEST VIRGINIA | W. Va. | 54 |  |  |  |
| WISCONSIN | Wis. | 55 |  |  |  |
| WYOMING | Wyo. | 56 |  |  |  |

## DETAILED NOTES

## TAPE POSITIONS 132-134 AND 135-137

## Industry and Occupation Codes

A person's occupation may be defined as his principal job or business. For this survey purpose, the principal job or business of a respondent Is defined in one of the following ways: If the person worked during the two week interview period or had a job or business, the question concerning his occupation (or work) applies to his job during that period. If the respondent held more than one job, the question is directed to the one at which he spent the most time. It refers to the one he considers most important when equal time is spent at each job. A person who has not begun work at a new job, is looking for work, or is on layoff from work is questioned about his last full-time civilian job. A full-time job is defined as one at which the person spent 35 or more hours per week and which lasted two consecutive weeks or more. A person who has a job to which he has not yet reported and has never had a previous job or business is classified as a "new worker."

The 1970 census of population Alphabetical Index of Industries and Occupations was used in the coding of both the industry and occupation. Library of Congress Number 74-612012. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. \$3.00. Stock Number 0301-2283.

Land used for farming purposes (Code 1 in Tape Position 146) was identified as being rural land (Code 2 in Tape Position 13) consisting of 10 or more acres (Code 1 in Tape Position 14) with crop sales amounting to $\$ 50$ or more (Code 2 in Tape Position 15), or rural land (Code 2 in Tape Position 13) consisting of less than 10 acres (Code 2 in Tape Position 14) with crop sales amounting to $\$ 250$ or more (Code 3 in Tape Position 16). All Other land is classified as nonfarm (Code 2 in Tape Position 146).

Poverty Index--Income status was determined by the Poverty Income Ratio (PIR). Poverty statistics published in the Census Bureau reports $1 /$ were based on the poverty index developed by the Social Security Administration in 1964. (For a detailed discussion of the SSA poverty standards, see reference 2.) Modifications in the definition of poverty were adopted in 1969.3/ The standard data series in poverty for statistical use by all executive departments and establishments has been established. 4 /

The two components of the PIR are the total income of the household (numerator) and a multiple of the total income necessary to maintain a family with given characteristics on a nutritionally adequate food plan 3/ (denominator). The dollor value of the denominator of the PIR is constructed from a food plan (economy plan) necessary to maintain minimum recommended daily nutritional requirements. The economy plan is designated by the Department of Agriculture for "emergency or temporary use when funds are low."

For families of three or more persons, the poverty level was set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was adjusted by the relatively higher fixed expenses of these smaller households.

The denominator or poverty income cutoff adjusts the family poverty income maintenance requirements by the family size, the sex of the family head, the age of the family head in families with one or two members, and the place of residence (farm, nonfarm). Annual revisions of the poverty income cutoffs are based on the changes in the average cost of living as reflected in the Consumer Price Index.

As shown in the table, the annual income considered to be the poverty level increases as the family size increases. A family with any combination of characteristics and with the same income as shown in the table has been designated as having a PIR or poverty level of 1.0 . The same family with twice the income found in the table would have a PIR of 2.0. Ratios of less than 1.0 can be described as "below poverty," ratios greater than or equal to 1.0 , as "at or above poverty."

Poverty thresholds are computed on a national basis only. No attempt has been made to adjust these thresholds for regional, State, or other local variation in the cost of living (except for the farm, nonfarm difference). None of the noncash public welfare benefits such as food stamp bonuses or free food commodities are included in the income of the low income families receiving these benefits.

1/Current Population Reports, "Consumer Income," Series P-60, No. 77, May 7, 1971 2/Orshansky, M.: "Counting the Poor: Another Look at the Poveriy Profile," Social Security Bulletin, January 1965;"Who's Who Among the Poor: A Demographic View of Poverty," Social Security Bulletin, July 1965.
3/Current Population Reports, "Special Studies," Series P-23, No. 28, August 12, 1969.
4/Circular No. A-46, Transmitted Memorandum No. 9, Executive Office of the President, Bureau of the Budget, August 29, 1969, and Exhibit L (rev.).

## DETAILED NOTES

TAPE POSITIONS 147-149

Weighted average thresholds at the low income level in 1971 by aize of family and aex of head, by farm-nonfarim residence

| Size of family | Total | Nonfarm |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Male ${ }^{1}$ <br> head | $\text { Female }{ }^{1}$ <br> head | Total | Male ${ }^{1}$ <br> head | $\text { Female }{ }^{1}$ <br> heald |
| All unrelated individua | -\$2,033 | \$2,040 | \$2,136 | \$1,978 | \$1,727 | \$1,783 |  |
| Under 65 years- | 2,093 | 2,098 | 2,181 | 2,017 | 11,805 | \$1,853 | 11,715 |
| 65 years and over | 1,931 | 1,940 | 1,959 | 1,934 | 1,652 | 1,666 | 1.,643 |
| All families----- | 3,700 | 3,724 | 3,764 | 3,428 | 3,235 | 3,242 | 3,079 |
| 2 persons-- | 2,612 | 2,633 | 2,641 | 2,581 | 2,219 | 2,224 | 2.130 |
| Head umder 65 years | 2,699 | 2,716 | 2,731 | 2,635 | 2,317 | 2,322 | 2,195 |
| Head 65 years and ove | 2,424 | 2,448 | 2,450 | 2,437 | 2,082 | 2,081 | 2,089 |
| 3 persons--------- | 3,207 | 3,229 | 3,246 | 3,127 | 2,745 | 2,749 | 2, 2,627 |
| 4 persons | 4,113 | 4,137 | 4,139 | 4,116 | 3,527 | 3,528 |  |
| 5 persons | 4,845 5,441 | 4,880 5,489 | 4,884 5,492 | 4,837 5,460 | 4,159 | 4,159 | 4,148 |
| 7 persons or more------- | 5,441 | 5,489 6,751 | 5,492 | 5,460 | 4,688 5,736 | 4,689 | 4,656 $\mathbf{3 , 5 1 6}$ |

${ }^{1}$ For unrelated individuals, sex of the individual.
SOURCE: U.S. Department of Comerce, Social and Economic Statistics Administration, U.S. Bureau of the Census 'Characteristics of the Low Income Population: 1971," Current Population Reports, Series P-60, No. 86, p. 18.

## Region

The United States was divided into four broad geographic regions of approximately equal population. Those regions, which deviate somewhat from the groups used by the Bureau of the Census, are as follows:

| Region | States Included |
| :--- | :--- |
| Northeast | Maine, Vermont, New Hampshire, Massachusetts, <br> Connecticut, Rhode Island, New York, New Jersey, <br> and Pennsylvania |
| South | Delaware, Maryland, District of Columbia, <br> West Virginia, Virginia, Kentucky, Tennessee, <br> North Carolina, South Carolina, Georgia, Florida, <br> Alabama, Mississippi, Louisiana, and Arkansas |
|  | Ohio, Illinois, Indiana, Michigan, Wisconsin, |
|  | Minnesota, Iowa, Missouri |
|  | Washington, Oregon, California, Nevada, New |
|  | Mexico, Arizona, Texas, Oklahoma, Kansas, |
|  | Nebraska, North Dakota, South Dakota, Idaho, |
|  | Utah, Colorado, Montana, and Wyoming, |

## DETAILED NOTES

## TAPE POSITIONS 158-193

HANES is a multistage, stratified, probability sample of loose clusters of persons in land-based segments. In addition, HANES is composed of two distinct examination components--a nutrition screening examination (taken by all examinees) and a more detailed examination taken by a pre-selected subsample of all examinees, ages $25-74$. For the nutrition screening examination, locations 1-35 and 1-65 constituted national probability samples and for the detailed examination, locations 1-35, 1-65, 66-100 and 1-100 all constitute national probability samples. In other words, HANES is composed of six distinct subsamples of the U.S. population. For a more detailed discussion of the sample design see Series 1, No. 10a.

Since each of these six subsamples is a distinct subsample of the U.S. population, each subsample requires a different set of weights. The weights are based upon the probability of selection into the sample, adjustments for nonresponse and further adjustments to approximate the U.S. noninstitutionalized population as of the midpoint of each subsample.

In order to select all of those examinees in a particular subsample, i.e. received a particular exam component, it is necessary to exclude all examinees with a weight of zero or blank. It is also necessary to exclude all zero or blank weights because that is the only way to differentiate missing data due to nonresponse from data that is missing because the sample design dictated that a particular examinee was not supposed to receive a particular examination component.

It is suggested that any analyses that are desired by the researcher be performed using the greatest number of examinees possible; that is, if the researcher is interested in an exam component of the nutrition screening examination he should use the weight and consequently the data from the 65 location subsample rather than the 35 location subsample. For the detailed examination, the researcher should use the 100 location subsample rather than one of the others. However, some exam components were only done in a particular subsample; for example, only at the first 35 locations. In that case, the researcher has no choice in selecting a particular subsample.

There may be occasions when a researcher may want to make comparisons of estimates obtained from various subsamples. For example, the prevalence of some disease condition as estimated from the first 35 locations could be compared with an estimate based upon locations 66-100. The researcher may also want to formulate hypotheses using one subsample and test those hypotheses using another subsample.

TAPE POSITIONS 213-233
Periodontal Index (PI) and Simplified Oral Hygiene Index (OHI-S)

The periodontal disease status and oral hygiene status of the sample persons who participated in the health and nutrition examinations conducted during 1971-75 were assessed by the Periodontal Index and the Simplified Oral Hygiene Index, respectively. The procedures for scoring and calculating the two indexes follow.

The Periodontal Index (PI)
Scores are assigned according to these criteria:
0 Negative. There is neither overt inflammation in the investing tissues nor loss of function due to destruction of supporting tissues.
1 Mild gingivitis. There is an overt area of inflammation in the free gingivae, but the area does not circumscribe the tooth.
2 Gingivitis. Inflamation completely circumscribes the tooth, but there is no apparent break in the epithelial attachment.
6 Gingivitis with pocket fomation. The epithelial attachment has been broken and there is a pocket (not merely a deepened gingival crevice due to swelling in the free gingivae). There is no interference with normal masticatory function; the tooth is firm in its socket and has not drifted.
8 Advanced destruction with loss of masticatory function. The tooth may be loose; may have drifted; may sound dull on percussion with a metallic instrument.

RULE: When in doubt, assign the lesser score.
Each tooth present in the mouth, unless it is a root, is scored, and the arithmetic average of all scores is the individual's PI.

## The Simplified Oral Hygiene Index (OHI-S)

Selected surfaces of six teeth are used in making this estimation of oral hygiene status. For the purposes of this examination each surface that is used, buccal or lingual, is considered to encompass half of the circumference of the tooth. The buccal surface of a molar, for example, is considered to include half of the mesial surface and half of the distal.

On both sides of the arch the posterior tooth assessed is the most anterior fully erupted permanent molar or, in its absence, the most distal fully erupted primary molar. In most cases this will be a first pemanent molar, but in others it may be a first or second primary molar
or a second permanent molar. The buccal surfaces of upper molars and the lingual of lowers are examined. In the anterior portion of the mouth, the labial surfaces of the upper right central incisor and the lower left central incisor are examined. When these teeth are missing, only the adjacent central incisor is examined.

Examining for oral debris.--The surface area covered by debris is estimated by running a number five explorer along the surface being examined and noting the occlusal or incisal extent of the debris as it is removed from the tooth surface and adheres to the explorer.

Scores are assigned according to the following criteria:
0 No debris or stain present.
1 (a) Soft debris covering not more than the gingival third of the tooth surface, or (b) the presence of extrinsic stains without debris regardless of surface area covered.
2 Soft debris covering more than one-third but not more than twothirds of the exposed tooth surface.
3 Soft debris covering more than two-thirds of the exposed tooth surface.

Examining for oral calculus.--A number five explorer is also used to estimate surface area covered by supragingival calculus and to probe for subgingival calculus.

## Scores are assigned according to the following criteria:

0 No calculus present.
1 Supragingival calculus covering not more than one-third of the exposed tooth surface.
2 Supragingival calculus covering more than one-third but not more than two-thirds of the exposed tooth surface, and/or the presence of individual flecks of subgingival calculus around the cervical portion of the tooth.
3 Supragingival calculus covering more than two-thirds of the exposed tooth surface and/or a continuous heavy band of subgingival calculus around the cervical portion of the tooth.

Calculating the index. --The debris scores are totaled and divided by the number of surfaces scored to obtain the Simplified Debris Index. The Simplified Calculus Index is detemined similarly. The debris and calculus scores are then added to give the Simplified Oral Hygiene Index.

DETALLED NOTES
TAPE POSITIONS 213-221
Oral Hygiene Index

Oral hygiene status is measured on the upper and lower molars and central incisors on each side. At least two of six predesignated natural permanent teeth must be present (see detailed note for Simplified Oral Hygiene Index, tape positions 213-233).

For 27 children aged $6-8$ years, only the upper and lower anterior teeth were present, but since they were not fully erupted, oral hygiene measurements were not recorded. Oral hygiene may also not have been recorded if orthodontic appliances were present, regardless of age. For children without fully erupted anterior permanent teeth, the oral hygiene score may have been recorded as "000" instead of "999." No computer edits were done on the original oral hygiene data, from which index values were calculated, for children under 6 years of age.

Scores of "999" may also appear for the oral hygiene status of persons with no periodontal disease and no recorded need for the removal of debris and calculus. It should be noted that the need for removal of debris and calculus may apply to teeth other than those on which oral hygiene is measured, however.

DETAILED NOTES
TAPE POSITIONS 234-363
Counts

Since there are sixteen possible permanent teeth in both the upper and lower arch, the ranges of codes for counts of permanent teeth are 00-16 for each arch and 00-32 for the mouth. Since there are ten possible primary teeth in each arch, the primary counts have code ranges 00-10 for each arch and 00-20 for the mouth. Since third molars are not replaced on fixed bridges, the counts of teeth replaced on a fixed bridge range from 00-14 for each arch, and 00-28 for the mouth.

Codes actually present in the data file may not include all the codes in these possible ranges. For example, the count called "Total teeth extracted for reasons other than caries" has a possible range of $00-32$, but there are no records having counts of $10-19$ or 21-32.

Every record contains every count; an adult record will have 00 for counts of primary teeth present.

DETAILED NOTES

TAPE POSITIONS 364-406

Treatment Needs

As with the tooth counts, all possible codes may not occur in the data file.

If "No need" (position 364) is coded " 0 ," all other treatment needs (positions 365-406) will be coded "0." If "No need" is coded "1," at least one other item in positions $365-406$ will be coded as showing a need. For any item that has a lead-in field coded "0" for "No need," the rest of that item will be coded " 0 ;" if the lead-in field is coded " 1 ," some other field in that item will have non-zero data. For example, in "Construct Full Dentures," if position 396 is " 0 ," then position 397 will be "O;" if position 396 is "l," then position 397 will be "l," "2," or "3."

If both arches are edentulous, then all needs except "Repair/Reline Denture or Bridge" (positions 391-395) and "Construct Dentures" (positions 396-397) will be " 0. ." These may also be " 0 " if no need is indicated.

## Occulsion Data

These data fields are applicable only for ages 9-21 years. For records within this age range, these fields will be coded as "Not applicable" if orthodontic appliances are present or if both arches are edentulous.

The HLD Index (positions 416-423) will be coded "Not applicable" unless one upper and one lower fully erupted central incisor are present.

If the "Not applicable" code for "Malalignment" (position 424) is coded "l," occlusion data fields may all be coded "Not applicable," or only some of them coded otherwise. When some of the fields were coded other than "Not applicable," the measurements are included even though there was insufficient data for calculating Treatment Priority Indexes.

## dETALLED NOTES

TAPE POSITIONS 434-443
Enamel Biopsy

At least one of the four upper central and lateral incisors must be present. When an enamel biopsy was taken, the dentist attempted to remove the enamel to a depth ranging from only 2.0 to 2.5 microns. Controlling the speed of the motor driving the felt cone that was used to apply the abrasive proved very hard to do. As a result, many of the enamel samples were taken at depths either shallower or deeper than desirable. Since the fluoride content of enamel is increasingly greater as the surface of a tooth is approached, it is necessary, before using the findings on fluoride content, to adjust them for differences in the depth at which they were taken. The formula developed by the National Center for Health Statistics to make the adjustment is as follows:

$$
F I_{A}=\frac{F 1_{\mu}(1287817)}{488502+\frac{159863}{\text { depth }}}
$$

Four or More Pairs of Opposing Serviceable Posterior Teeth

This field pertains to the posterior five teeth, artificial or natural, on each side of both arches. One of these five teeth must have been present in each of the four quadrants for this field to be coded "1." It was found in editing that 1762 records were coded "1" when it was not clear whether the required teeth were present; 426 records were coded " 0 " when the teeth were present. The coding was not changed, but the user should be aware of possible updating of this field. Most inconsistencies seemed to occur in the older examinees.

