## Public Use Data Tape Documentation

## 24-Hour Food Consumption Intake Ages 1-74 <br> Tape Number 4704

National Health and Nutrition Examination Survey, 1971.75
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES - Public Health Service © National Center for Health Statistics


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National Health and Nutrition Examination Survey, 1971-75

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
National Center for Health Statistics

Hyattsville, Maryland
November 1985

The data compilation and documentation necessary to conform the 24 -Hour Food Consumption Intake Tape to the specifications of the Health and Nutrition Examination Survey Data Tape Release program were done by Margaret Carroll, Connie Dresser, Dale Hitchcock, Everette Collins, Evelyn Stanton, and Rita Weinberger of the Division of Health Examination Statistics, National Center for Health Statistics. A special note of gratitude is due Eugene Sides who patiently typed and retyped this material.

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## 24-HOUR FOOD CONSUMPTION INTAKE 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. Also provided is a draft report on the augmentation survey of adults describing the relevant field work conducted between July 1974 and October 1975.

Target Population: HANES I was conducted on a nationwide probability sample of approximately 32,000 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 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 those 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 aged 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 for all examined sample persons in IIANES 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 1-17 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 well-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.

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 also include 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 if any such errors are detected that they be 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 Survey 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-less 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.*

O1d 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.

```
Title: 24-Hour Food Consumption Intake Tape
Catalog Number: 4704
Data Set Name: HEHANESI.DU470404
Record Length: 405
Blocksize: 8100
Number of Records: 371,889
Number of Reels: 2 or 4 (depending on tape density)
Recording Mode: Fixed Block, EBCDIC
Channel: 9 Track
Created by: Division of Health Examination Statistics
        National Center for Health Statistics
        Hyattsville, Maryland
```


## General Notes

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.

Dietary Information: Data on the 24 -Four Food Consumption Intake Tape were obtained by the 24 -hour recall method by which each of the 20,749 sample persons ages $1-74$ years was asked to report each food he had consumed on the day before the examination (midnight to midnight). This method accounted for all regular meals eaten as well as between-meal foods or snacks. It included foods eaten on Monday through Friday, but generally excluded foods eaten on weekends.

The 24-Hour Food Consumption Intake Tape contains a separate record for each food item consumed by each examined person
together with the amounts of calories and fourteen selected nutrients contributed by each food. The nutrients are protein, fat, total carbohydrate, fiber carbohydrate, calcium, phosphorus, iron, sodium, potassium, vitamin A, thiamine, riboflavin, niacin and vitamin C. Also contained on the tape are the ingestion period, the approximate time of day the food was consumed, and the food source.

Beginning with version 03 of the 24 -Hour Food Consumption Intake Tape, all records now include a quantatative value (in grams) for the amount of each food item ingested by the sample person, and values for the amounts of saturated fatty acid, oleic acid, linoleic acid, and dietary cholesterol contributed by each food item.

## SPECIAL NOTE

Since there is a separate data record for each food item consumed by each examined person, the total number of records found on the microdata tape is 371,889 . However, there are only 20,749 different examined persons, each with a possible 50 data records, one for each food item consumed.

The demographic information is found in tape positions l-200 on every data record for each examined person. However, the tape description on pages 14-30 (demographic information) shows only the counts for the total number of examined persons rather than the total number of data records.

## DEMOGRAPHIC DATA SUMMARY - HANES I

Tape
Positions
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 pined 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 hcuse 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 Lid 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 mach 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 nuch altogether ..... 57
Dividends, interest or rent ..... 61
If yes - How much altoge ther ..... 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 ..... 123
If yes - Which ..... 129
Class of worker ..... 130
If seif-enployed 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

## 24-HOUR FOOD CONSUMPTION INTAKE DATA SUMMARY - HANES I

Tape
Positions
CATALOG NUMBER - 4704 ..... 201
Respondent ..... 225
Day of recall ..... 226
Ingestion period ..... 227
Food code ..... 228
Time of day ..... 233
T., ine number ..... 237
Tood source ..... 239
Interviewer code ..... 240
Completion code ..... 243
Food group ..... 244
NUTRIENTS
Calories ..... 246
Protein (grams) ..... 254
Fat (grams) ..... 262
Total carbohydrates !grams! ..... 270
Fiber carbohydrates ..... 278
Calcium (mg) ..... 286
Phosphorus (mg) ..... 294
Iron (mg) ..... 302
Sodium (mg) ..... 310
Potassium (mg) ..... 318
Vitamin A (I.U.) ..... 326
Thiamine (mg) ..... 334
Riboflavin (mg) ..... 342
ITiacin (mg) (Niacin from food sources) ..... 350
Vitamin C (mg) ..... 358
Amount of Food Consumed in Grams ..... 366
Saturated Fatty Acid in Grams ..... 374
Oleic Acid in Grams ..... 382
Linoleic Acid in Grams ..... 390
Dietary Cholesterol (mg) ..... 398


HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)


HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)


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HE'ALTH AND NUTRITION EXAMINATION SURVEY (HANES I)


HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

| $\begin{aligned} & \therefore \text { tem } \\ & \theta \\ & \hline \end{aligned}$ | Tape | No. of Positions | ITEM DESCRIPTION \& CODES | Control Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 124 | 1 | If "keeping house" or "something else" from above, did he work at a job or business at any time during the past three mariths? <br> l-Yes <br> 2 - No <br> 8 - Blank, but applicable <br> 9 - Not app1icable | $\begin{array}{r} 1054 \\ 6522 \\ 36 \\ 13137 \end{array}$ | Household Questionnaire |
|  | 125 | 1 | If "Working" from above, did he work full-time or part-time? <br> 1-Full-time <br> 2 - Part-time <br> 8 - Blank, but applicable <br> 9 - Not applicable | 5705 1714 38 13292 | Household Questionnaire |
|  | 126 | $\therefore 1$ | Did he work at any time last week or the week before? (not around house) <br> 1-Yes. <br> 2-No <br> 8 - Blank;: but applicable <br> 9 - Not applicable | $\begin{array}{r} 6600 \\ 755 \\ .103 \\ 13291 \end{array}$ | Household Questionnaire |
|  | 127 | 1 | If "no" to above, even though he did not work during that time, does he have a job or business? <br> 1 - Yes <br> 2-No <br> 8-Blank, but applicable <br> 9 - Not applicable | 397 6878 104 13370 | Household Questionnaire |
|  | 128 | 1 | If "no" in Position 126; was he looking for work or on lay-off from a job? <br> 1-Yes <br> 2-No <br> 8 - Blank, büt applicable <br> 9 - Not applicable | $\begin{array}{r} 537 \\ 6738 \\ 104 \\ 13370 \end{array}$ | Household Questionnaire |




| $\begin{gathered} \text { Irem } \\ \# \end{gathered}$ | Tape Loc. | No. of Positions | - ITEM DESCRIPTION \& CODES | Control Counts | IhANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 <br> 1 | 153 | 1 | Are you buying stamps now? <br> 1-Yes, regularly <br> 2 - Yes, occasionally <br> 3 - No <br> 8 - Blank, but applicable <br> Blank | $\begin{array}{r} 1965 \\ 89 \\ 307 \\ . \quad 13 \\ 18375 \end{array}$ | Food Programs Quest. |
|  | 154 | 1 | What is the main reason you aren't participating in the program? <br> 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? 1 - Yes, regularly 2 - Ycs, occasionally 3-No 8 - Blank, but applicable Blank``` | $\begin{array}{r} 159 \\ 14 \\ 39 \\ 3 \\ 20534 \end{array}$ | Food Programs Quest. |
|  | 157 | 1 | Why aren't you participating in the program?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. |


| Item \# | Tape Loc. | No. of Positions | ITEM DESCRIPTION \& CODES | Control <br> Counts | HANES I Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SAMPLE WEIGHTS |  |  |
|  | 158-63 | 6 | Detailed Persons, Location 01-35 Blanks | $\begin{array}{r} 1892 \\ 18857 \end{array}$ | See Detailed Notes |
|  | 164-69 | 6 | A11 Sample Persons, Locations 01-35 Blanks | $\begin{aligned} & 10127 \\ & 10622 \end{aligned}$ | 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 | Al1 Sample Persons, Locations 01-65 Blanks | $\begin{array}{r} 20749 \\ 0 \end{array}$ | See Detailed Notes |
| $\begin{aligned} & \boldsymbol{0} \\ & \mathbf{1} \end{aligned}$ | $\begin{aligned} & 182- \\ & 193 \end{aligned}$ | 12 | Work Area |  |  |
|  | $\begin{aligned} & 194- \\ & 195 \end{aligned}$ | 2 | $\text { STRATA } \underline{1 /}$ | 20749 |  |
|  | $\begin{aligned} & 196= \\ & 198 \end{aligned}$ | 3 | Primary Sampling Unit ${ }^{1 /}$ | 20749 |  |
|  | $\begin{aligned} & 199- \\ & 200 \end{aligned}$ | 2 | 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. |  |  |

24- Hour Food Consumption Intake Tape
(371,889 $=$ number of records)




HEAL'TH AND NUTRI'TION EXAMINATION SURVEY (HANES I)

| $\begin{gathered} \text { Item } \\ \# \end{gathered}$ | Tape Loc. | No. of Positions | IT'EM DESCRIPTION \& CODES | Control <br> Counts | HANES I <br> Data Source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 270- \\ & 277 \end{aligned}$ | 8 | Total Carbohydrates (Grams) <br> $00000000-00054725-$ as given <br> $99999999-$ Unknown | $\begin{array}{r} 370171 \\ 1718 \end{array}$ | 24-Hour Recall <br> Questionnaire |
|  | $\begin{aligned} & 278- \\ & 285 \end{aligned}$ | 8 | $\begin{array}{r} \frac{\text { Fiber Carbohydrates }}{00000000-64605635-} \text { as given } \\ 99999999-\text { Unknown } \end{array}$ | $\begin{array}{r} 370171 \\ 1718 \end{array}$ | See Detailed Notes |
|  | $286-$ 293 | 8 | $\begin{aligned} & \text { Calcium }(\mathrm{Mg}) \\ & 00000000-00564479 \text { - as given } \\ & 99999999 \text { - Unknown } \end{aligned}$ | $\begin{array}{r} 370171 \\ 1718 \end{array}$ |  |
| $\stackrel{\omega}{+}$ | $\begin{aligned} & 294- \\ & 301 \end{aligned}$ | 8 | $\begin{array}{r} \text { Phosphorus }(\mathrm{Mg}) \\ \hline 00000000-00441600 \text { - as given } \\ 99999999 \text { - Unknown } \end{array}$ | $\begin{array}{r} 370171 \\ 1718 \end{array}$ |  |
|  | $\begin{aligned} & 302- \\ & 309 \end{aligned}$ | 8 | $\begin{aligned} & \text { Iron }(\mathrm{Mg}) \\ & \begin{array}{r} 00000000-00006410-\text { as given } \\ 99999999 \text { - Unknown } \end{array} \end{aligned}$ | $\begin{array}{r} 370171 \\ 1718 \end{array}$ |  |
|  | $\begin{aligned} & 310- \\ & 317 \end{aligned}$ | 8 | $\begin{aligned} & \text { Sodium }(\mathrm{Mg}) \\ & \hline 00000000-01240120 \text { - as given } \\ & 99999999 \text { - Unknown } \end{aligned}$ | $\begin{array}{r} 370171 \\ 1718 \end{array}$ |  |
|  | $\begin{aligned} & 318- \\ & 325 \end{aligned}$ | 8 | ```Potassium (Mg) 00000000-00704000 - as given 99999999 - Unknown``` | $\begin{array}{r} 370171 \\ 1718 \end{array}$ |  |
|  | $\begin{aligned} & 326- \\ & 333 \end{aligned}$ | 8 | Vitamin A (International Units (I.U.)) 00000000-23923200 - as given <br> - Unknown | $370171$ |  |




## DETAILED NOTES

TNTE POSITIOA 10

## 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 incorpurated as cities, boroughs, villages and towns (except toms in New York, New Enoland, and Wisconsin); (b) the densely sectled urban fringe, whether incorporated or unincorporated, of urbanized areas; (c) tows in New England and tomships in New Jersey and Pennsylvania which contained no incorporated municipalities as suldivisions 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.

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.

## DETAILED NOTES

TAPE POSITIONS 22 AND 103

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, Anerican 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.

DETAILED NOTES
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

| U UNITED STATES |  |  | OUTLYING AREAS OF THE U.S. |  |
| :---: | :---: | :---: | :---: | :---: |
| $\cdots$ | 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 |
| DELAWAPE | Del. | 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 | 111. | 17 | Ryukyn Islands - Southern | 73 |
| INDIANA | Ind. | 18 | Swan Islands . | 74 |
| IONA | Iowa | 19 | Tokelau Islands | 75 |
| KANSAS | Kans. | 20 | U.S. Misc. Caribbean | 76 |
| KEETUCKY | Ky. | 21 | U.S. Misc. Pacific Islands | 77 |
| LOUIS IANA | La. | 22 | Virgin Islands | 78 |
| MAINE | Maine | 23 | Wake Islands | 79 |
| MARYLARD | Md. | 24 | Cuba | 80 |
| ASSACHUSETTS | Mass. | 25 | West Indies | 81 |
| -nITYTCAN! | Mȧニ, | 26 |  | 01 |
| MINNESOTA | Minn. | 27 | South America | 92 |
| MISS ISS IPPI | 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 HA'TSSIITRE | 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 |  |  |
| OKLAHOLA | 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 |  |  |
| TRGINIA | Va. | 51 |  |  |
| , ASHINGTON | Wash. | 53 |  |  |
| WEST VIRGINIA | W. Va. | 54 |  |  |
| WISCONSIN | Wis. | 55 |  |  |
| FYOMING | Who. | 56 |  |  |

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.

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$\$ 3.00$. Stock Number 0301-2283.

## DETAILED NOTES

## TAPE POSITION 146

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 famllies 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 l.O. 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.
i/Current Population Reports, "Consumer Income," Series P-60, No. 77, May 7, 1971 2/Orshansky, M.: "Counting the Poor: Ancther Look at the Poverty 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 Feports, "Special Studies," Series P-23, No. 28, August 12, 1969.
4/CJrcular No. A-46. Transmitted Memorandum No. 9 , Executive Office of the President, Bureau of the Budget, August 29, 1959, and Exhibit L (rev.).

## DETAILED NOTES

## TAPE POSITIONS 147-149

Weighted average thresholds at the iow incowe level in 1971 by size of family and aex of head, by farm-nonfarm residence

| Size of family | Tocal | Nonfarm |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | $\begin{aligned} & \text { Male } \\ & \text { head } \end{aligned}$ | $\begin{aligned} & \text { Fewale } \\ & \text { head } \end{aligned}$ | Total | $\text { Male }{ }^{1}$ head | $\begin{aligned} & \text { Female } \\ & \text { head } \end{aligned}$ |
| All unrelated individua | \$2,033 | \$2,040 | \$2,136 | \$1,978 | \$1,727 | \$1,783 | \$1,669 |
| Under 65 years--- | 2,093 | 2,098 | 2,181 | 2,017 | 1,805 | 1,853 | 1,715 |
| 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 under 65 years | 2,699 | 2,716 | 2,731 | 2,635 | 2,317 | 2,322 | 2,195 |
| Head 65 years and ou | 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 | 2,627 |
| 4 persons | 4,113 | 4,137 | 4,139 | 4,116 | 3,527 | 3,528 | 3,513 |
| 5 persons | 4,845 | 4,880 | 4,884 | 4,837 | 4,159 | 4,159 | 4,148 |
| 6 persons | 5,441 | 5,489 | 5,492 | 5,460 | 4,688 | 4,689 | 4,656 |
| 7 persons or more | 6,678 | 6,751 | 6,771 | 6,583 | 5,736 | 5,749 | 5,516 |

${ }^{1}$ For unrelated individuals, sex of the individual.
SOURCE: U.S. Deparment of Comerce, Social and Economic Scatistics Administration, U.S. Bureau of the Cengus "Characteristics of the Low Income population: 1971," Currenc Population Reports, Series P-60, No. 86, p. 18.

DETAILED NOTES
TAPE ROSITION 150

## 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, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania |
| South | Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas |
| Midwest | Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri |
| West | Washington, Oregon, California, Nevada, New Mexico, Arizona, Texas, Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, Idaho, Utah, Colorado, Montana, and Wyoming. |

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 nutricion screening examination, locations 1-35 and l-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 stx 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 subsampie; 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.

## DETAILED NOTES

Tape Position 227

## Ingestion Period

The ingestion period code '5' refers to one or more food items prepared once and eaten throughout the day.

## DETAILED NOTES

Tape Positions 228-232

## Food Code

The food codes as well as nutrient values of food items per 100 gram edible portion were obtained from the U. S. Department of Agriculture Handbook 8, 1963 and from other sources. Because of this constantly changing food supply, nutrient composition values for new food combinations were added or updated continually according to information provided by the U. S. Department of Agriculture. A food code of '09999' was used when an ingestion period was skipped.

For further information, refer to specifications for model grams and Handbook 8.

DETAILED NOTES
Tape Positions 233-236

Time of Day
The time was recorded in minutes and hours using military times.

FOOD OR FOOD GROUP

1. Milk and Milk Products
2. Meat
3. Poultry
4. Organ meats
5. Fish or Shellfish
6. Eggs
7. Soups
8. Fats and Oils
9. Legumes and Nuts
10. Cereals and Grain Products
11. Fruits and Vegetables

## EXPLANATION OF FOOD ITEM

Includes milk drunk as a beverage or used on cereals; flavored milk drinks; cocoa made from milk; skim milk, yogurt, or buttermilk; ice milk; ice cream or puddings made with milk; cheese and cheese dishes. EXCEPTION: CREAM CHEESE

Includes beef, pork, lamb, veal, luncheon meats, frankfurters

Includes chicken, turkey, duck, game birds, cornish hen, etc.

Includes liver, kidney, heart, spleen, etc.

All varieties of fish and shellfish regardless of whether canned, fresh, frozen, or dried or salted.

Includes eggs eaten e.g. fried, boiled, poached, deviled, or egg salad. DOES NOT INCLUDE EGGS IN COOKED OR BAKED DISHES (AS CUSTARDS, PUDDINGS)

Includes milk and water-based; gravies and sauces (meat and vegetable based)

Includes butter, margarine, salad oils, salad dressings, bacon, cream cheese, cream, peanut butter, non-dairy cream

Includes dry beans and peas like pinto beans, red beans, black-eyed peas, peanuts, soy beans, soy products, etc.

Includes breakfast cereals either dry as cornflakes or cooked such as oatmeal: grain products such as bread, rolls. biscuits, muffins, cornbread, crackers, unsalted pretzels.
A. All kinds: fresh, canned, frozen, cooked or raw; juices, or fruit drinks B. Fruits and Vegetables rich in Vitamin A
C. Fruits and Vegetables rich in Vitamin C

FOOD OR FOOD GROUP
12. Sugar \& primarily sugar products
13. Desserts and sweets
14. Miscellaneous
15. Mixed protein dishes with carbohydrates (starches) or vegetables (cho)
16. Alcohol beverages
17. Sugar free and low
18. Salty snacks

EXPLANATION OF FOOD ITEM
Includes all candy, soft drinks, lemonade, limeade

Includes cake, pie, cookies, fruit puddings, doughnuts (cake-type and yeast-type) sherbet, sweet snacks. EXCEPTIONS: ICE CREAM, ICE MILK

Including mustard, gelatin, malt, beverage powders, chili powder, seeds, low fat salad dressings

Includes casseroles, pot pies, pizza, spaghetti with meat, etc. EXCEPTIONS: PLAIN CHEESE DISHES

Includes:
a) beer,
b) wine,
c) distilled liquors

Includes coffee (regular, and decaffeinated), tea, bouillion, consomme, and carbonated drinks

Includes potato chips, corn chips, puffed snacks, salted popcorn, salted pretzeis, etc.

## Nutrients

A value of zero '00000000' can denote the following:

1) that the individual skipped a particular ingestion period. In this case, the food code will be '09999' (see tape positions 228-232).
2) that the nutrient value per 100 gram edible portion is '00000000' or "unknown." To determine whether this is the case, first determine the food code (tape positions 228-232). Then search for that food code on the Nutrient Composition Tape and search for the mutrient in 'question (see record specifications for Nutrient Composition Tape). A value of ' 00000000 ' denotes that the particular food does not contain that nutrient. The values $-100,-800$, and -900 correspond to a value unknown at the time HANES dietary data was processed.

There were 1718 records for which the values for calories and selected nutrients are given as '99999999.' This was done because uncorrectable transcription errors caused some values for calories and the selected nutrients were found outside of reasonable expected consumption ranges.

There are some records where the caloric intake or intake for selected nutrients is low (less than 0.10 of a unit). This is the result of the reported intake of miniscule amounts of food.

DETAILED NOTES
Tape Positions 262-269

Fat (Grams)
Fat values on the new 24 -Four Consumption Tape do not necessarily match those on the original 24 -Hour Consumption Tape because the new values have been computed using updated nutrient composition information on the amount of fat per 100 gram edible portions of certain foods.

DETAILED NOTES
Tape Positions 278-285

## Fiber Carbohydrate

The data contained in this field on the tape are unedited. Also fiber values for many of the foods cataloged in HANES I were unknown. The values have been included on this tape in response to requests from data users who were interested in examining HANES I data using that information on fiber carbohydrate which was available during the time frame of the survey.

The Division of Health Examination Statistics of the National Center For Health Statistics has no plans for any analysis using fiber carbohydrate values.

## DETAILED NOTES <br> Tape Positions 366-373

## Amount of Food Consumed in Grams

The amount of each individual food item consumed by a sample person has been quantified in grams. This is done by means of the food models which have been coded by the dietary interviewer as representing the amount of each food consumed, and the gram conversion factor associated with every food item in the HANES data bank. This factor allows the universal conversion of food quantities to grams.

