



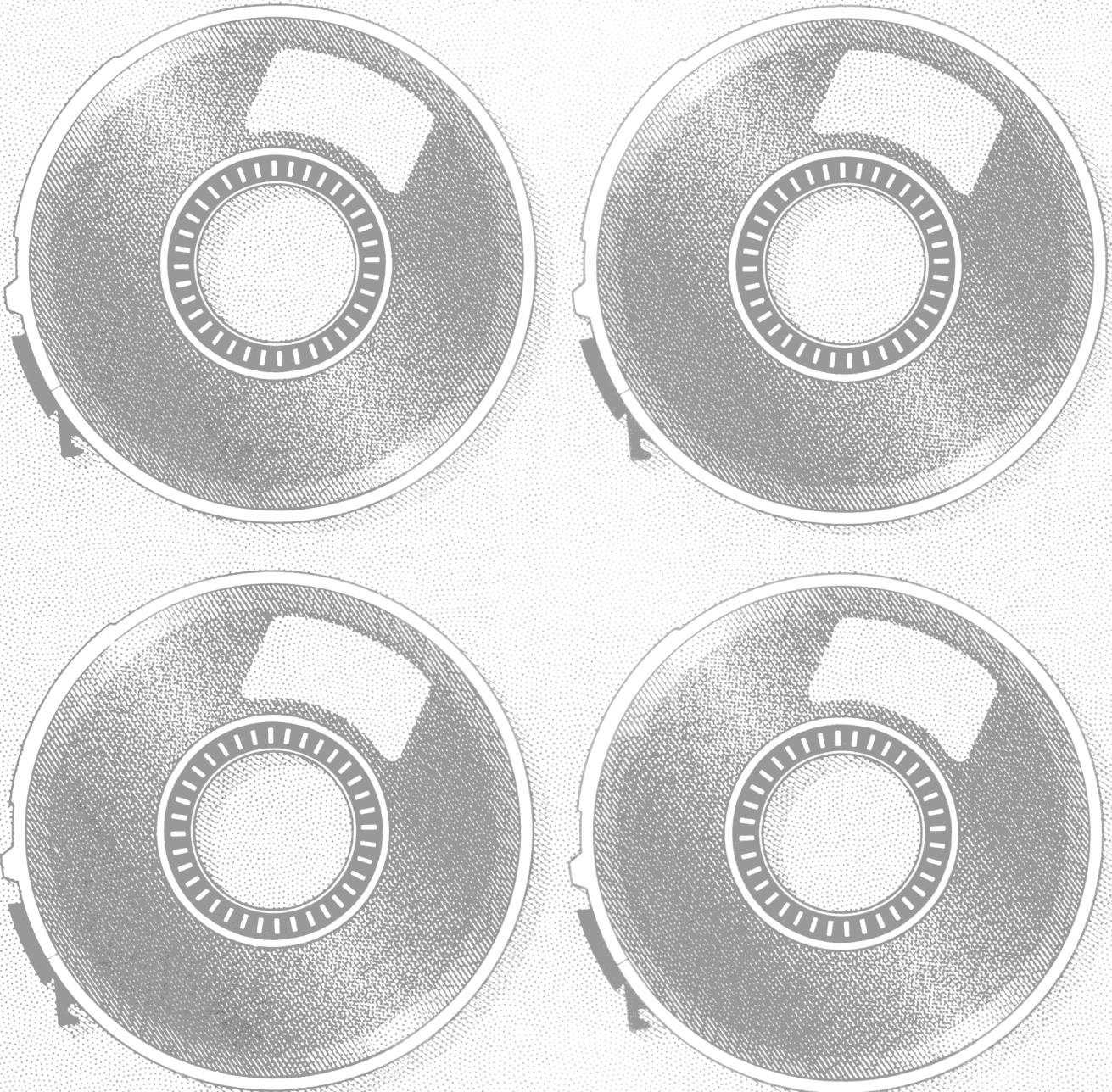
# Public Use Data Tape Documentation

**Hearing**  
**Ages 6 Months - 74 Years**  
**Tape Number 6502**

Version 1

Hispanic Health and Nutrition  
Examination Survey, 1982-1984

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • Public Health Service • Centers for Disease Control • National Center for Health Statistics

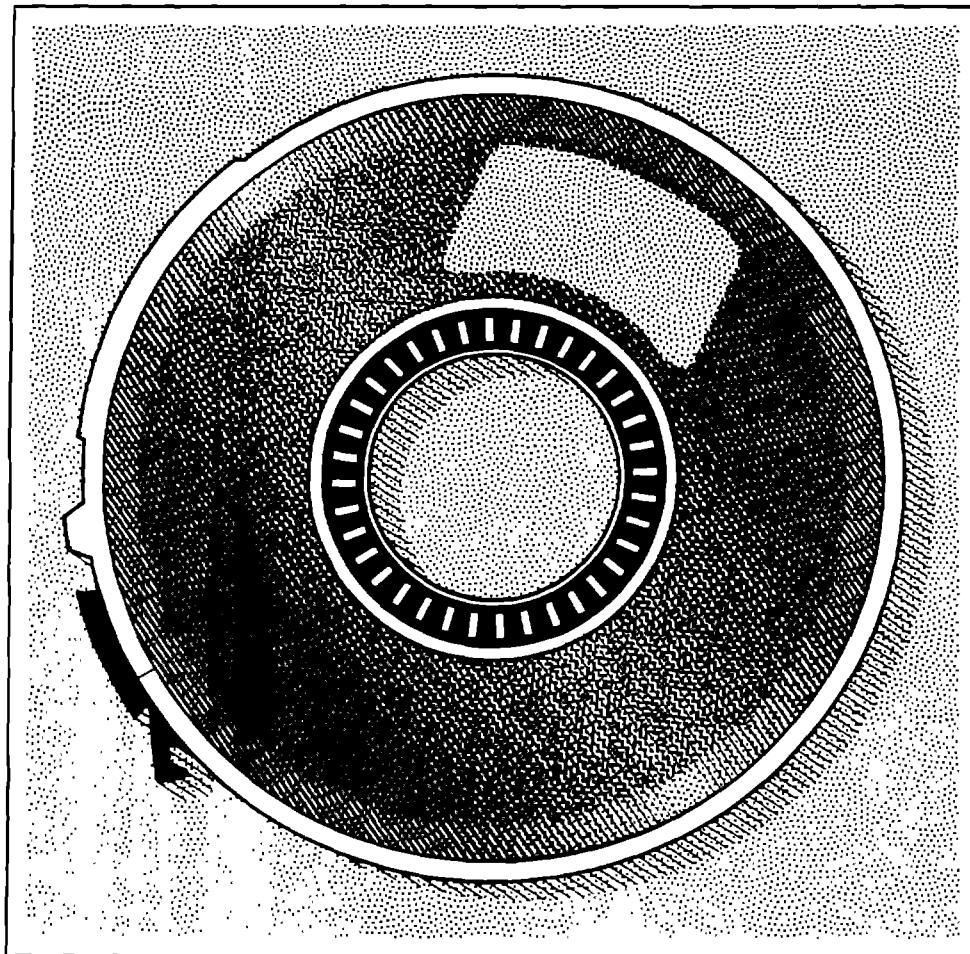


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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Center for Health Statistics

Hyattsville, Maryland  
November 1988

Hispanic Health and Nutrition Examination Survey

Mexican Americans  
Cuban Americans  
Puerto Ricans

Tape Number 6502

**HEARING**

**Ages 6 Months - 74 Years**

Version 1

October 1988

The Hispanic Health and Nutrition Examination Survey (HHANES) was conducted from July 1982 through December 1984. The data on the tape documented here are from all three portions of the survey:

**Mexican Americans**

Residing in selected counties of Texas, Colorado, New Mexico,  
Arizona, and California  
Surveyed from July 1982 through November 1983  
9,894 persons sampled; 8,554 interviewed; 7,462 examined

**Cuban Americans**

Residing in Dade County (Miami), Florida  
Surveyed from January 1984 through April 1984  
2,244 persons sampled; 1,766 interviewed; 1,357 examined

**Puerto Ricans**

Residing in the New York City area, including parts of New Jersey  
and Connecticut  
Surveyed from May 1984 through December 1984  
3,786 persons sampled; 3,369 interviewed; 2,834 examined

The following tape characteristics are those of the version of the tape kept at NCHS and of the tape transmitted to the National Technical Information Service for release to users:

Tape labels: IBM standard  
Data set name: HHANES.DU650201  
Data set organization: Physical sequential  
Record format: Fixed block  
Record length: 700  
Block size: 24500  
Density: 6250 BPI  
Number of records: 11,653  
Data code: EBCDIC

## CAUTION

BEFORE USING THIS DATA TAPE,  
PLEASE READ THIS PAGE

- o Read the accompanying description of the survey, "The Plan and Operation of the Hispanic Health and Nutrition Examination Survey", DHHS Publication No. (PHS) 85-1321 before conducting analyses of the data on this tape.
- o Two aspects of HHANES, especially, should be taken into account when conducting any analyses: the sample weights and the complex survey design.
- o Analyses should not be conducted on data combined from the three portions of the survey (Mexican-American, Cuban-American, Puerto Rican).
- o HHANES is a survey of Hispanic households and some of the sample persons included on this tape are not of Hispanic origin. A detailed description of the data codes dealing with national origin or ancestry appears in the NOTES section of this document.
- o Examine the range and frequency of values of a variable before conducting an analysis of data. The range may include unusual or unexpected values. The frequency counts may be useful to determine which analyses may be worthwhile.
- o Language of Interview, which may appear several places on this tape, can vary depending on the questionnaire (several used in the survey) and on whether the response was provided by the sample person or by a proxy.
- o For some data items, reference is made to a note. The notes (in a separate section of this document) may be very important in data analyses. Attention to them is strongly urged.

This Public Use Data Tape has been edited very carefully. Numerous consistency and other checks were also performed. Nevertheless, due especially to the large number of data items, some errors may have gone undetected.

Please bring to the attention of NCHS any errors in the data tape or the documentation. Errata sheets will be sent to people who have purchased the data tapes and corrections will be made to subsequently released data tapes.

In publications, please acknowledge NCHS as the original data source. The acknowledgment should include a disclaimer crediting the authors for analyses, interpretations, and conclusions; NCHS should be cited as being responsible for only the collection and processing of the data. In addition, NCHS requests that the acronym HHANES be placed in the abstracts of journal articles and other publications based on data from this survey in order to facilitate the retrieval of such materials through automated bibliographic searches. Please send reprints of journal articles and other publications that include data from this tape to NCHS.

Division of Health Examination Statistics  
National Center for Health Statistics  
Center Building, Room 2-58  
3700 East-West Highway  
Hyattsville, MD 20782

Public Use Data Tapes for the Hispanic Health and Nutrition Examination Survey will be released through the National Technical Information Service (NTIS) as soon as the data have been edited, validated, and documented. A list of NCHS Public Use Data Tapes that can be purchased from NTIS may be obtained by writing the Scientific and Technical Information Branch, NCHS.

Scientific and Technical Information Branch  
National Center for Health Statistics  
Center Building, Room 1-57  
3700 East-West Highway  
Hyattsville, MD 20782  
301-436-8500

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## SECTION A. INTRODUCTION AND SURVEY DESCRIPTION

The National Center for Health Statistics (NCHS) collects, analyzes, and disseminates data on the health status of Americans. The results of surveys, analyses, and studies are made known primarily through publications and the release of computer data tapes. This document contains details required to guide programmers, statistical analysts, and research scientists in the use of a Public Use Data Tape.

From 1960 through 1980 NCHS conducted five population-based, national health examination surveys. Each survey involved collecting data by direct physical examination, the taking of a medical history, and laboratory and clinical tests and measurements. Questionnaires and examination components have been designed to obtain and support analyses of data on certain targeted conditions such as diabetes, hypertension, and anemia. Beginning with the first National Health and Nutrition Examination Survey (NHANES I) a nutrition component was added to obtain information on nutritional status and dietary practices. The numbers of Hispanics in these samples were, however, insufficient to enable adequate estimation of their health conditions. From 1982 through 1984 a Hispanic Health and Nutrition Examination Survey (HHANES) was conducted to obtain data on the health and nutritional status of three Hispanic groups: Mexican Americans from Texas, Colorado, New Mexico, Arizona, and California; Cuban Americans from Dade County, Florida; and Puerto Ricans from the New York City area, including parts of New Jersey and Connecticut.

The general structure of the HHANES sample design was similar to that of the previous National Health and Nutrition Examination Surveys. All of these studies have used complex, multistage, stratified, clustered samples of defined populations. The major difference between HHANES and the previous surveys is that HHANES was a survey of three special subgroups of the population in selected areas of the United States rather than a national probability sample. A detailed presentation of the design specifications is found in Chapter 5 of "Plan and Operation of the Hispanic Health and Nutrition Examination Survey, 1982-84" (Ref. No. 1).

Data collection began with a household interview. Several questionnaires were administered:

- o A Household Screener Questionnaire (HSQ), administered at each selected address, for determining household eligibility and for selecting sample persons.
- o A Family Questionnaire (FQ), administered once for each family containing sample persons, which included sections on family relationships, basic demographic information for sample persons and head of family, Medicare and health insurance coverage, participation in income assistance programs, and housing characteristics.
- o An Adult Sample Person Questionnaire (ASPQ), for persons 12 through 74 years which, depending on age, included sections on health status measures, health services utilization, smoking (20 through 74 years), meal program participation, and acculturation. Information on the use of medicines and vitamins in the past two weeks was also obtained.
- o A Child Sample Person Questionnaire (CSPQ), for sample persons 6 months through 11 years which included sections on a number of health status issues, health care utilization, infant feeding practices, participation in meal programs, school attendance, and language use. Information on the use of medicines and vitamins in the past two weeks was also obtained.

At the Mobile Examination Center two questionnaires were administered and an examination performed:

- o An Adult Sample Person Supplement (ASPS), for sample persons 12 through 74 years, which included sections on alcohol consumption, drug abuse, depression, smoking (12 through 19 years), pesticide exposure, and reproductive history.
- o A Dietary Questionnaire (DQ), for persons 6 months through 74 years, by which trained dietary interviewers collected information about "usual" consumption habits and dietary practices, and recorded foods consumed 24-hours prior to midnight of the interview.
- o An examination which included a variety of tests and procedures. Age at interview and other factors determined which procedures were administered to which examinees. A dentist performed a dental examination and a vision test. Technicians took blood and urine specimens and administered a glucose tolerance test, X-rays, electrocardiograms, and ultrasonographs of the gallbladder. Technicians also performed hearing tests and took a variety of body measurements. A physician performed a medical examination focusing especially on the cardiovascular, gastrointestinal, neurological, and musculoskeletal systems. The physician's impression of overall health, nutritional and weight status, and health care needs were also recorded. Some blood and urine specimen analyses were performed by technicians in the examination center; others were conducted under contract at various laboratories.

Because the HHANES sample is not a simple random one, it is necessary to incorporate sample weights for proper analysis of the data. These sample weights are a composite of individual selection probabilities, adjustments for noncoverage and nonresponse, and poststratification adjustments. The HHANES sample weights, which are necessary for the calculation of point estimates, are located on all data tapes in positions 184-213. Because of the complex sample design and the ratio adjustments used to produce the sample weights, commonly used methods of point and variance estimation and hypothesis testing which assume simple random sampling may give misleading results. In order to provide users with the capability of estimating the complex sample variances in the HHANES data, Strata and Pseudo Primary Sampling Unit (PSU) codes have been provided on all data tapes in positions 214-217. These codes and the sample weights are necessary for the calculation of variances.

There are computer programs available designed for variance estimation for complex sample designs. The balanced repeated replication approach (Ref. No. 2) is used in &REPER and a linearization approach is used in &PSALMS to calculate variance-covariance matrixes. Both routines are available within the OSIRIS IV library (Ref. No. 3). SURREGR (Ref. No. 4) and SUPERCARP (Ref. No. 5) are programs that calculate variance-covariance matrixes using a linearization approach (Ref. No. 6) (Taylor series expansion). Another program, SESUDAAN (Ref. No. 7) calculates standard errors, variances, and design effects. (Note: This version of SESUDAAN should not be used to obtain variances for totals.) SURREGR and SESUDAAN are special procedures which run data under the SAS system (Ref. No. 8).



Even though the total number of examined persons in this survey is quite large, subclass analyses can lead to estimates that are unstable, particularly estimates of variances. Consequently, analyses of subclasses require that the user pay particular attention to the number of sample persons in the subclass and the number of PSU's that contain at least one sample person in the subclass. Small sample sizes, or a small number of PSU's used in the variance calculations, may produce unstable estimates of the variances.

A more complete discussion of these issues and possible analytic strategies for examining various hypotheses is presented in Chapter 11 of "Plan and Operation of the Hispanic Health and Nutrition Examination Survey, 1982-84" (Ref. No. 1) and in an earlier NCHS methodology (Series 2) publication (Ref. No. 9).

Some users, however, may not have access to the computer programs for estimating complex sample variances or may want to do their preliminary analyses without using them. In addition, variance estimates calculated from HHANES data through use of the programs described previously are likely to be unstable because there were so few sample areas for each portion of HHANES. This instability is not due to there being too few people in the sample but may be due to the fact that the sample was selected from relatively few areas. Therefore, the following discussion is designed to provide an alternative approach to deal with the unavailability of software and the small number of PSU's. The approach is based on using average design effects (Ref. No. 10).

The design effect, defined as the ratio of the variance of a statistic from a complex sample to the variance of the same statistic from a simple random sample of the same size, that is,

$$\text{DESIGN EFFECT (DEFF)} = \frac{\text{COMPLEX SAMPLE VARIANCE}}{\text{SIMPLE RANDOM SAMPLE VARIANCE}}$$

is often used to show the impact of the complex sample design on variances. If the design effect is near 1, the complex sample design has little effect on the variances and the user could consider assuming simple random sampling for the analysis.

Some illustrative design effects for HHANES data on this tape are given in the following tables. The design effects in the tables are the average for the age groups usually presented in NCHS Series 11 publications. If the average design effect for a subgroup was less than 1.0 (implying an improvement over simple random sampling), it was coded as 1.0.

The following guidelines were used in the calculation of the average design effects:

1. Exclude all persons of non-Hispanic origin,
2. Exclude all estimates for large age ranges, such as all ages combined or 'all adults', and
3. Exclude all estimates where the proportion of the subpopulation with the specific characteristic or condition was zero percent or one hundred percent.

Design effects tend to be larger when age groups are combined, just as they are when the sexes are combined, as shown in the tables. The data in the tables give the user an idea of the range in design effects for selected response variables from this data tape. If a response variable is not one shown in the tables take the range into account; it is possible that a user could have one of the higher, rather than one of the lower, design effects.

Average Design Effects, by Sex, for Selected Variables --  
Mexican-American Portion

Hearing Variable	Mean or Proportion	Tape Positions	Both Sexes	Male	Female
<u>Hearing level in decibels for the right ear</u>					
500 Hertz	$\bar{x}$	579-582	1.2	1.1	1.1
1000 Hertz	$\bar{x}$	519-522	1.2	1.0	1.3
2000 Hertz	$\bar{x}$	539-542	1.3	1.1	1.4
4000 Hertz	$\bar{x}$	559-562	1.4	1.3	1.3

Source: NCHS, HHANES, 1982-84, Tape Number 6502, Version 1.

Average Design Effects, by Sex, for Selected Variables --  
Cuban-American Portion

Hearing Variable	Mean or Proportion	Tape Positions	Both Sexes	Male	Female
<u>Hearing level in decibels for the right ear</u>					
500 Hertz	$\bar{x}$	579-582	1.0	1.1	1.0
1000 Hertz	$\bar{x}$	519-522	1.0	1.0	1.0
2000 Hertz	$\bar{x}$	539-542	1.0	1.2	1.0
4000 Hertz	$\bar{x}$	559-562	1.0	1.2	1.0

Source: NCHS, HHANES, 1982-84, Tape Number 6502, Version 1.

Average Design Effects, by Sex, for Selected Variables --  
Puerto Rican Portion

Hearing Variable	Mean or Proportion	Tape Positions	Both Sexes	Male	Female
<u>Hearing level in decibels for the right ear</u>					
500 Hertz	$\bar{x}$	579-582	1.2	1.2	1.2
1000 Hertz	$\bar{x}$	519-522	1.5	1.0	1.9
2000 Hertz	$\bar{x}$	539-542	1.2	1.1	1.1
4000 Hertz	$\bar{x}$	559-562	1.3	1.0	1.4

Source: NCHS, HHANES, 1982-84, Tape Number 6502, Version 1.

Suppose, for example, that the average (mean) hearing level at 500 Hz in the right ear for 89 Mexican-American males 55-64 years old was 19 dB. Suppose, also that the simple random sample variance was 1.45.

The complex sample variance is determined by multiplying the simple random sample variance by the design effect (DEFF). In the example above,

the complex sample variance = simple random sample variance x DEFF

$$= (1.45) \times (1.1)$$

$$= (1.60)$$

In a similar way, the complex sample variance of a percent can be determined. Assuming simple random sampling, the variance for the percent is calculated by converting the percent to a proportion and using the standard formula for the variance of a proportion.

$$V = \frac{pq}{n}$$

This variance (V) multiplied by the design effect (DEFF) provides an estimate of the variance from a complex sample of the same sample size (n).

The user can then proceed with estimating confidence intervals and testing hypotheses in the usual manner.

The user should recognize that this approach does not incorporate the variance covariance matrix. In most cases, this leads to a slight overestimate of the variance because the covariance terms, which are subtracted in the variance of a ratio, in general are positive. Thus, in a borderline case, the null hypothesis would be less likely to be rejected (Ref. No. 11).

Alternative or better approaches may exist or be developed. Users who want to suggest such approaches, or who want the latest information should contact the Scientific and Technical Information Branch (address given in the beginning of this documentation).

## SECTION B. DATA COLLECTION AND PROCESSING PROCEDURES

Data presented in Sections E through H and the family relationships data in Section J were collected on the Household Screener and Family Questionnaires. Data presented in Section K were collected on the Adult Sample Person Questionnaire or on the Child Sample Person Questionnaire. Section L data were collected during the physical examination which was administered in the mobile examination center. Data presented in Section M includes audiometric examination data were collected by trained technicians using standardized procedures and highly calibrated equipment. Examination forms and complete descriptions of measurement procedures and equipment are given in Appendices 1 through 2. Completed interview and examination forms were reviewed in the Survey's field offices and again at the data processing center of NCHS by clerical editors. The editors checked the forms for completeness, clarity, and compliance with skip patterns, and they coded items such as industry and occupation. At the data processing center the questionnaires were keyed and verified on key-to-disk data entry equipment under the control of programs that checked for valid codes and ranges, compliance with skip patterns, and consistency. After being keyed, data were reedited by analysts for reasonableness and consistency and for compliance with instructions for sampling and questionnaire administration.

The audiometric examination data, like the questionnaire data, have undergone numerous quality control and editing procedures in both data collection and data processing phases of the survey. Where possible, the results have been compared with those of previous studies.

The examination protocol included training and periodic retraining of examiners by a supervisor and consultant, as well as an ongoing system of quality control procedures to reduce variability introduced by errors of measurement.

### o Audiometric Exam

Each examinee 6 through 19 years and half of the examinees 20 through 74 years were tested at the following four frequencies: 500, 1000, 2000, and 4000 Hertz (Hz), with the 1000 Hz frequency repeated a second time as a measure of the reliability of test results. Hearing threshold level, as defined here, is the lowest intensity of a pure tone produced in the audiometer earphone that is just audible to the ear of the examinee in a specified number of trials. The standard audiometers used in the survey were calibrated in accordance with the 1969 American National Standards Institute (ANSI) specifications. Hence the zero sound intensity level on the dial of these instruments corresponds to the 1969 ANSI reference zero.

Alternation of presentation to each ear was varied among examinees to safeguard against bias in testing. The threshold recorded for each frequency was the lowest decibel (dB) level at which 50 percent or more of the responses were obtained, that is, in two out of three or three out of five trials. Masking for the nontest ear was done in air conduction testing only on retest when there was a 40 dB difference or more in the thresholds for the two ears. The effective range of audiometric testing was -15 to +105 dB. Hearing threshold levels of 105 dB or more were coded "105." To minimize the nonlinearity of the audiometer, a 30 dB external attenuator pad was used. This process moved the low level

threshold measurements into the linear operating range of the audiometer. For the population tested using the pad, the 30 dB constant was subtracted from the audiometer reading to obtain the true threshold values. Standardized testing procedures were used to insure as consistent test results as possible throughout the survey. Any condition such as earache, cold, or other problems that might affect the test results was also recorded.

The data user is cautioned that statistical summary measures such as the mean, standard deviation, and standard error will reflect the truncation of the distribution of puretone air conduction hearing levels at -15 dB and +105 dB and nonlinearity at -15 dB through +0 dB. Estimated percentiles at the median and above should be relatively free of the effects of distribution truncation and of measurement bias. With these caveats in mind, these data provide data users with the opportunity to examine for themselves a large set of audiometric measurements made in a standardized manner on a representative sample of the 6-74 year old segment of the U.S. population.

The general tape description format is Tape Position X Item X Counts. The item (field) may be a tape descriptor (e.g. Version Number), a sample person descriptor (e.g. Age at Interview), or a question (e.g. Is sample person covered by Medicare?). Where appropriate, data entries are presented by codes. Frequency counts are given for each code. The counts are included to help the user in planning analyses and in verifying that programs account for all data. The data source is given also (e.g., from Family Questionnaire). In some cases, a note is referenced. The notes contain explanations of the item (e.g. how Poverty Index is calculated).

The questionnaire data have undergone many quality control and editing procedures. The responses of sample persons to some questions may appear extreme or illogical. Self-reported data, especially, are subject to a number of sources of variability, including recall and other reporting errors. In the data clean-up process, responses that varied considerably from expected were verified through direct review of the collection form or a copy of it. Such responses may not represent fact, but they are included as recorded in the field. The user must determine if these responses should be included in analyses.

Responses to "other" and "specify" were recoded to existing categories, if possible. For responses that could not be recoded, new code categories were created if the information was deemed analytically useful. Caution should be used in interpreting the data from these new categories because there is no way of knowing which other respondents would have selected one of the new categories if given the option.

For the adult sample person questionnaires there are three codes for missing information: 7's, 8's, and blanks. In a few questions, 7's were used when the question was not applicable. A code "8", which is labeled as "blank but applicable", is used to indicate that a sample person should have a data value for a particular item but for varying reasons that value is unavailable. Blanks were used to follow skip patterns, i.e., when a question was not supposed to be asked or was not applicable. The "don't know" codes (9, 99, 999) were used only when given as a printed response on the original questionnaire.

Copies of the questionnaires, both in English and Spanish, can be found in the plan and operation report for HHANES (Ref. No. 1). Detailed information on interviewing and examination procedures is contained in the household interviewer's manual (Ref. No. 12), the mobile examination center interviewer's manual (Ref. No. 13), and the examination staff procedures manual (Ref. No. 14). These manuals are available upon request from:

Division of Health Examination Statistics  
National Center for Health Statistics  
Center Building, Room 2-58  
3700 East-West Highway  
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301-436-7080

## SECTION C. REFERENCES

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12. National Center for Health Statistics: Instruction Manual Part 15h, Household Interviewer's Manual for the Hispanic Health and Nutrition Examination Survey, 1982-84. Hyattsville, MD, 1986.

13. National Center for Health Statistics: Instruction Manual Part 15g, Mobile Examination Center Interviewer's Manual for the Hispanic Health and Nutrition Examination Survey, 1982-84. Hyattsville, MD, 1986.
14. National Center for Health Statistics: Instruction Manual Part 15a, Examination Staff Procedures Manual for the Hispanic Health and Nutrition Examination Survey, 1982-84. Hyattsville, MD, 1986.



## SECTION D. TAPE POSITION INDEX

**TAPE POSITIONS 1-400** contain data categories common to all data tapes: sociodemographic data, family composition, family income, residence and household. Sample weights are also in this set of data.

**TAPE POSITIONS 401+** contain data categories unique to this data tape.

### SOCIODEMOGRAPHIC DATA - SAMPLE PERSON (SECTION E)

1-5	Sample Person Sequence Number
6-15	Survey and Tape Identifiers
16	Examination Status
17	Language of Interview
18-21	Date of Interview
22-25	Date of Examination
26-29	Date of Birth
30-32	Age at Interview
33-38	Age at Examination
39-43	Family Number
44-45	Relationship to Head of Family
46	Sex
47	Race
48-49	National Origin or Ancestry
50-52	Birth Place
53	National Origin Recode
54-56	Education
57	Marital Status
58	Service in Armed Forces
59-69	Work/Occupation/Employment
70-95	Health Insurance/Health Care Support
96-99	Income Assistance/Public Compensation or Support

### SOCIODEMOGRAPHIC DATA - HEAD OF FAMILY (SECTION F)

100	Interview and Examination Status
102-105	Date of Birth
106-107	Age at Interview
109	Sex
110	Race
111-112	National Origin or Ancestry
113-115	Birth Place
116-118	Education
119	Marital Status
120	Service in Armed Forces
121-131	Work/Occupation/Employment

FAMILY COMPOSITION AND INCOME DATA (SECTION G)

132-133	Number of People in Family
134-135	Number of Sample People in Family
136-138	Combined Family Income
139-143	Per Capita Income
144-146	Poverty Index
147-162	Income, Food Stamps

RESIDENCE AND HOUSEHOLD DATA (SECTION H)

163	Size of Place
164	Standard Metropolitan Statistical Area
165-166	Number of People in Household
167-168	Number of Sample People in Household
169-170	Number of Rooms
171	Kitchen Facilities Access
172-183	Heating/Cooling Equipment

SAMPLE WEIGHTS (SECTION I)

184-189	Examination Final Weight
190-195	Interview Final Weight
196-201	GTT/Ultrasound Weight
202-207	Audiometry/Vision Weight
208-213	Pesticide Weight
214-215	Strata Code
216-217	Pseudo PSU Code

FAMILY RELATIONSHIPS (SECTION J)

218-400	Data not yet available
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MEDICAL HISTORY DATA - HEARING (SECTION K)

405	Subsample Indicator
406-407	Birth Defects - Children
408-424	History and Care of Hearing Problems - Children
425	Subsample Indicator
426-432	History of Hearing Problems - Adults

PHYSICAL FINDINGS - EARS (SECTION L)

433-436	Auditory Canal
437-460	Eardrum

AUDIOMETRIC AIR CONDUCTION DATA (SECTION M)

501-504	Tape Number
505	Audiometric Exam Form Blank
506-510	Audiometer Number
511-513	Examiner Number
514-533	1000 Hertz Test
534-553	2000 Hertz Test
554-573	4000 Hertz Test
574-593	500 Hertz Test
594-613	Repeated 1000 Hertz Test
614-633	Conditions Affecting Test Results

Position	Item description and code	M	Counts C	P	Source and notes
<b>SECTION E. SOCIODEMOGRAPHIC DATA - SAMPLE PERSON (POS 1-99)</b>					
Source: Family Questionnaire (FQ) Household Screener Questionnaire (HSQ)					
1-5	<b>Sample person sequence number</b> 00001-09894 Mexican Americans 10002-12238 Cuban Americans 13001-16785 Puerto Ricans	7462 - -	- 1357 -	- - 2834	
6-12	<b>Blank</b>				
13	<b>Portion of survey</b> 1 Mexican-American (M) 2 Cuban-American (C) 3 Puerto Rican (P)	7462 - -	- 1357 -	- - 2834	
14	<b>Family Questionnaire missing</b> 1 Yes 2 No	21 7441	6 1351	10 2824	See Note 1
15	<b>Version number</b> 1	7462	1357	2834	
16	<b>Examination status</b> 1 Examined 2 Not examined	7462 0	1357 0	2834 0	See Note 2
17	<b>Language of interview (Pos. 1-400)</b> 1 English 2 Spanish Blank	4513 2929 20	244 1107 6	1229 1595 10	FQ
18-19 20-21	<b>Date of interview</b> 01-12 Month 82-84 Year	7462 7462	1357 1357	2834 2834	HSQ 4
22-23 24-25	<b>Date of examination</b> From survey control record 01-12 Month 82-84 Year	7462 7462	1357 1357	2834 2834	
26-27 28-29	<b>Date of birth</b> 01-12 Month 88 Blank but applicable 08-84 Year 88 Blank but applicable	7462 0 7462 0	1357 0 1357 0	2834 0 2834 0	HSQ 2e
30-31	<b>Age at interview (computed)</b> 01-74 (See next column for units)	7462	1357	2834	
32	<b>Age at interview units</b> 1 Years 2 Months	7342 120	1349 8	2796 38	HSQ 2f

Position	Item description and code	Counts			Source and notes
		M	C	P	
	<b>Age at examination</b> (computed) Positions 33-38 are all 0 for non-examined persons.				
33-34	00-75 Years	7462	1357	2834	
35-36	00-11 Months	7462	1357	2834	
37-38	00-30 Days	7462	1357	2834	
39-43	<b>Family number</b> 00002-03529 04005-04922 07001-08584	7462 - -	- 1357 -	- - 2834	See Note 3
44-45	<b>What is sample person's relationship to head of family? Sample person is:</b>				HSQ 2b See Note 4
	01 Head of family living alone (1 family with only 1 member)	145	56	113	
	02 Head of family, with no related persons in household (2+ persons in household)	76	23	24	
	03 Head of family, with related persons in household	1582	369	678	
	04 Wife of head (husband living at home and not in Armed Forces)	1299	300	296	
	05 Wife of head (husband living at home and is in Armed Forces)	5	0	0	
	06 Husband of head (wife living at home and not in Armed Forces)	35	12	37	
	07 Husband of head (wife living at home and is in Armed Forces)	0	0	0	
	08 Child of head or head's spouse	3769	484	1437	
	09 Grandchild of head or head's spouse	217	32	115	
	10 Parent of head or head's spouse	57	35	33	
	11 Other relative (includes ex-spouse, daughter-in-law, etc.)	273	46	101	
	12 Foster child	4	0	0	
46	<b>Sex</b> 1 Male 2 Female	3516 3946	636 721	1237 1597	FQ B-4
47	<b>Observed race</b> 1 White 2 Black 3 Other 8 Blank but applicable 9 Not observed Blank	7213 76 8 72 72 21	1300 15 3 15 18 6	2462 152 73 59 78 10	FQ B-5 See Note 5
48-49	<b>Sample person's national origin or ancestry.</b>				HSQ 2c See Note 6
	01 Mexican/Mexicano	1641	1	1	
	02 Mexican-American	5202	0	0	
	03 Chicano	102	0	0	
	04 Puerto Rican	7	3	2596	
	05 Boricuan	0	0	36	
	06 Cuban	4	1069	20	
	07 Cuban-American	0	222	0	
	08 Hispano - specify	150	14	26	
	09 Other Latin-American or other Spanish - specify	37	18	41	
	00 Other - specify	276	30	114	
	10 Spanish-American	22	0	0	
	11 Spanish (Spain)	21	0	0	

Position	Item description and code	M	Counts C	P	Source and notes
50-52	<b>In what state or foreign country was sample person born?</b>				FQ B-6 See Note 7
	001-118 State/country code	7403	1345	2771	
	888 Blank but applicable	38	6	53	
	Blank	21	6	10	
53	<b>National origin recode</b>				See Note 8
	"Hispanic" = Mexican-American in Southwest, Cuban-American in Florida and Puerto Rican in New York City area.				
	1 "Hispanic"	7197	1291	2645	
	2 Not "Hispanic"	265	66	189	
54-55	<b>What is the highest grade or year of regular school sample person has ever attended?</b>				FQ B-7
	00 Never attended or kindergarten only	1476	116	446	
	01-08 Elementary grade	3118	556	1090	
	09-12 High school grade	2119	400	1011	
	13-16 College	581	243	225	
	17 Graduate school	70	30	14	
	88 Blank but applicable	77	6	38	
	Blank	21	6	10	
56	<b>Did sample person finish that grade/year?</b>				FQ B-8
	1 Yes	3938	853	1436	
	2 No	1934	368	861	
	8 Blank but applicable	93	14	81	
	Blank	1497	122	456	
57	<b>Is sample person now married, widowed, divorced, separated or has he or she never been married?</b>				FQ B-9
	0 Under 14 years of age	2953	297	1000	
	1 Married - spouse in household	2600	632	660	
	2 Married - spouse not in household	70	17	54	
	3 Widowed	161	50	66	
	4 Divorced	214	92	155	
	5 Separated	159	21	149	
	6 Never married	1265	241	730	
	8 Blank but applicable	19	1	10	
	Blank	21	6	10	
58	<b>Did sample person ever serve in the Armed Forces of the United States?</b>				FQ B-11
	1 Yes	416	27	145	
	2 No	3557	952	1409	
	8 Blank but applicable	7	3	14	
	Blank	3482	375	1266	
59	<b>During the past 2 weeks, did sample person work at any time at a job or business, not counting work around the house?</b>				FQ B-12
	1 Yes	2210	622	613	
	2 No	1751	349	930	
	8 Blank but applicable	19	11	25	
	Blank	3482	375	1266	

Position	Item description and code	Counts			Source and notes
		M	C	P	
60	<b>Even though sample person did not work during those 2 weeks, did he or she have a job or business?</b>				FQ B-13
	1 Yes	46	13	23	
	2 No	1704	334	902	
	8 Blank but applicable	20	13	30	
	Blank	5692	997	1879	
61	<b>Was sample person looking for work or on layoff from a job?</b>				FQ B-14
	1 Yes	217	43	60	
	2 No	1533	304	865	
	8 Blank but applicable	20	13	30	
	Blank	5692	997	1879	
62	<b>Which, looking for work or on layoff from a job or both?</b>				FQ B-15
	1 Looking	146	34	44	
	2 Layoff	46	6	8	
	3 Both	23	2	7	
	8 Blank but applicable	22	14	31	
	Blank	7225	1301	2744	
63-65	<b>What kind of business or industry does sample person work for?</b>				FQ B-19 See Note 9
	010-932 Industry code	2429	665	681	
	990 Blank but applicable	49	18	37	
	Blank	4984	674	2116	
66-68	<b>What kind of work was sample person doing?</b>				FQ B-20 See Note 9
	003-889 Occupation code	2432	666	681	
	999 Blank but applicable	46	17	37	
	Blank	4984	674	2116	
69	<b>Class of worker</b>				FQ B-22
	1 An employee of a private company, business or individual for wages, salary, or commission	1912	543	551	
	2 A Federal government employee	74	6	21	
	3 A State government employee	124	19	17	
	4 A Local government employee	169	17	56	
	5 Self-employed in own incorporated business or professional practice	17	12	7	
	6 Self-employed in own unincorporated business, professional practice, or farm	131	67	27	
	7 Working without pay in family business or farm	3	0	0	
	8 Blank but applicable	46	18	38	
	0 Never worked or never worked at a full-time civilian job lasting 2 weeks or more	2	1	1	
	Blank	4984	674	2116	
70	<b>Is sample person now covered by Medicare?</b>				FQ C-2
	1 Covered	303	107	139	
	2 Not covered	7129	1237	2674	
	8 Blank but applicable	6	6	11	
	9 Don't know	3	1	0	
	Blank	21	6	10	

Position	Item description and code	M	Counts C	P	Source and notes
71	<b>Is sample person now covered by the part of Social Security Medicare which pays for hospital bills?</b>				FQ C-3
	1 Yes	270	100	124	
	2 No	18	4	5	
	8 Blank but applicable	15	6	20	
	9 Don't know	6	3	1	
	Blank	7153	1244	2684	
72	<b>Is sample person now covered by that part of Medicare which pays for doctor's bills? This is the Medicare plan for which he or she or some agency must pay a certain amount each month.</b>				FQ C-4
	1 Yes	269	100	111	
	2 No	17	5	17	
	8 Blank but applicable	15	6	20	
	9 Don't know	8	2	2	
	Blank	7153	1244	2684	
73	<b>Type of Medicare coverage</b> As shown on Medicare card				FQ C-5
	1 Hospital	0	0	0	
	2 Medical	2	0	0	
	3 Card not available	3	0	2	
	4 Hospital and medical	5	3	0	
	8 Blank but applicable	15	6	20	
	Blank	7437	1348	2812	
	<b><u>HEALTH INSURANCE</u></b>				See Note 10
74	<b>Is sample person covered by any health insurance plan which pays any part of a hospital, doctor's, or surgeon's bill?</b>				FQ C-11
	1 Yes	4094	818	1011	
	2 No	3326	526	1796	
	8 Blank but applicable	19	7	16	
	9 Don't know	8	0	1	
	Blank	21	6	10	
75	<b>Is sample person covered by a plan that pays any part of hospital expenses?</b>				FQ C-9
	1 Yes	4039	806	955	
	2 No	6	7	9	
	8 Blank but applicable	54	12	55	
	9 Don't know	8	0	8	
	Blank	3355	532	1807	
76	<b>Is sample person covered by a plan that pays any part of a doctor's or surgeon's bills for operations?</b>				FQ C-10
	1 Yes	4034	804	945	
	2 No	22	11	28	
	8 Blank but applicable	36	10	35	
	9 Don't know	15	0	19	
	Blank	3355	532	1807	



Position	Item description and code	M	Counts C	P	Source and notes
	<b>Many people do not carry health insurance for various reasons. Which of these statements describes why sample person is not covered by any health insurance (or Medicare)? (Positions 77-80)</b>				FQ C-13/15 See Note 10
77-78	<b>Main reason</b>				
	01 Care received through Medicaid or welfare	267	31	854	
	02 Unemployed, or reasons related to unemployment	350	40	114	
	03 Can't obtain insurance because of poor health, illness, or age	24	2	15	
	04 Too expensive, can't afford health insurance	1767	280	506	
	05 Dissatisfied with previous insurance	50	3	3	
	06 Don't believe in insurance	31	4	8	
	07 Have been healthy, not much sickness in the family, haven't needed health insurance	206	23	31	
	08 Military dependent, (CHAMPUS), Veteran's benefits	45	1	15	
	09 Some other reason - not specified	2	0	7	
	10 Some other reason - specified	255	35	58	
	88 Blank but applicable	118	34	77	
	Blank	4347	904	1146	
79-80	<b>Second reason</b>				
	00 No second reason reported	2573	339	1374	
	01 Care received through Medicaid or welfare	70	17	58	
	02 Unemployed, or reasons related to unemployment	109	30	30	
	03 Can't obtain insurance because of poor health, illness, or age	4	2	3	
	04 Too expensive, can't afford health insurance	168	20	132	
	05 Dissatisfied with previous insurance	15	1	2	
	06 Don't believe in insurance	18	3	3	
	07 Have been healthy, not much sickness in the family, haven't needed health insurance	47	4	8	
	08 Military dependent, (CHAMPUS), Veteran's benefits	0	0	2	
	09 Some other reason - not specified	0	0	0	
	10 Some other reason - specified	25	8	7	
	88 Blank but applicable	86	29	69	
	Blank	4347	904	1146	
81-87	<b>Blank</b>				
88	<b>During the last 12 months, has sample person received health care which has been or will be paid for by Medicaid?</b>				FQ D-6
	1 Yes	537	101	1076	
	2 No	6859	1242	1708	
	8 Blank but applicable	45	7	40	
	9 Don't know	0	1	0	
	Blank	21	6	10	

Position	Item description and code	Counts			Source and notes
		M	C	P	
89	<b>Does sample person have a Medicaid card?</b>				FQ D-8
	1 Yes	530	104	1144	
	2 No	6872	1232	1647	
	8 Blank but applicable	39	15	33	
	9 Don't know	0	0	0	
	Blank	21	6	10	
90	<b>Status of sample person's Medicaid card?</b>				FQ D-9
	1 Medicaid card seen - current	382	84	832	
	2 Medicaid card seen - expired	7	0	12	
	3 No card seen	128	17	274	
	4 Other card seen	0	0	0	
	5 Other card seen (specify)	5	0	2	
	8 Blank but applicable	47	18	57	
	Blank	6893	1238	1657	
91	<b>Is sample person now covered by any other public assistance program that pays for health care?</b>				FQ D-11
	1 Yes	54	2	29	
	2 No	7376	1348	2780	
	8 Blank but applicable	11	1	15	
	9 Don't know	0	0	0	
	Blank	21	6	10	
92	<b>Does sample person now receive military retirement payments from any branch of the Armed Forces or a pension from the Veteran's Administration? Do not include VA disability compensation.</b>				FQ D-13
	1 Yes	56	4	9	
	2 No	7373	1346	2806	
	8 Blank but applicable	12	1	9	
	9 Don't know	0	0	0	
	Blank	21	6	10	
93	<b>Which does sample person receive; the Armed Forces retirement, the VA pension, or both?</b>				FQ D-14
	1 Armed Forces	16	0	2	
	2 Veteran's Administration	30	0	5	
	3 Both	4	4	1	
	8 Blank but applicable	18	1	10	
	Blank	7394	1352	2816	
94	<b>Is sample person now covered by CHAMP-VA, which is medical insurance for dependents or survivors of disabled veterans?</b>				FQ D-16
	1 Yes	45	4	10	
	2 No	7388	1346	2808	
	8 Blank but applicable	8	1	6	
	9 Don't know	0	0	0	
	Blank	21	6	10	
95	<b>Is sample person now covered by any other program that provides health care for military dependents or survivors of military persons?</b>				FQ D-18
	1 Yes	41	4	8	
	2 No	7387	1346	2804	
	8 Blank but applicable	13	1	12	
	9 Don't know	0	0	0	
	Blank	21	6	10	

Position	Item description and code	M	Counts C	P	Source and notes
96	Is sample person included in the AFDC, "Aid to Families with Dependent Children", assistance payment?				FQ D-2
	1 Yes	394	39	650	
	2 No	7020	1304	2134	
	8 Blank but applicable	27	6	39	
	9 Don't know	0	2	1	
	Blank	21	6	10	
97	Does sample person now receive the "Supplemental Security Income" or "SSI" gold-colored check?				FQ D-4
	1 Yes	131	44	135	
	2 No	7285	1295	2659	
	8 Blank but applicable	25	12	30	
	9 Don't know	0	0	0	
	Blank	21	6	10	
98	Does sample person have a disability related to his or her service in the Armed Forces of the United States?				FQ D-20
	1 Yes	48	2	14	
	2 No	346	20	108	
	8 Blank but applicable	29	8	37	
	Blank	7039	1327	2675	
99	Does sample person now receive compensation for this disability from the Veteran's Administration?				FQ D-21
	1 Yes	31	1	9	
	2 No	17	1	4	
	8 Blank but applicable	29	8	38	
	Blank	7385	1347	2783	

Position	Item description and code	M	Counts C	P	Source and notes
<b>SECTION F. SOCIODEMOGRAPHIC DATA - HEAD OF FAMILY (POS 100-131)</b>					
Source: Family Questionnaire (FQ) Household Screener Questionnaire (HSQ)					
100	<b>Interview and examination status of head of family</b>				See Note 4
	1 Selected as sample person, interviewed on Adult Sample Person Questionnaire, and examined	5523	1076	2098	
	2 Selected as sample person, interviewed on Adult Sample Person Questionnaire, but not examined	338	62	79	
	3 Selected as sample person, not interviewed, and not examined	218	34	23	
	4 Not selected as sample person	1362	179	624	
	Blank	21	6	10	
101	<b>Blank</b>				
	<b>Date of birth</b>				HSQ 2e
102-103	01-12 Month	7413	1348	2830	
	88 Blank but applicable	49	9	4	
104-105	00-86, 89-99 Year	7440	1353	2832	
	88 Blank but applicable	22	4	2	
106-107	<b>Age at interview</b> 17-95 Years	7462	1357	2834	
108	<b>Blank</b>				
109	<b>Sex</b>				FQ B-4
	1 Male	5982	1069	1331	
	2 Female	1460	282	1493	
	Blank	20	6	10	
110	<b>Observed race</b>				FQ B-5 See Note 5
	1 White	7138	1282	2511	
	2 Black	75	27	165	
	3 Other	6	3	58	
	8 Blank but applicable	106	31	59	
	9 Not observed	117	8	31	
	Blank	20	6	10	
111-112	<b>Head of family's national origin or ancestry.</b>				HSQ 2c See Note 6
	01 Mexican/Mexicano	2068	0	3	
	02 Mexican-American	4523	0	0	
	03 Chicano	97	0	0	
	04 Puerto Rican	19	7	2503	
	05 Boricuan	0	0	29	
	06 Cuban	6	1197	46	
	07 Cuban-American	0	85	2	
	08 Hispano - specify	147	20	37	
	09 Other Latin-American or other Spanish - specify	54	17	39	
	00 Other - specify	513	31	175	
	10 Spanish-American	17	0	0	
	11 Spanish (Spain)	18	0	0	

Position	Item description and code	M	Counts C	P	Source and notes
113-115	<b>In what state or foreign country was head of family born?</b>				FQ B-6 See Note 7
	001-118 State/country code	7362	1331	2762	
	888 Blank but applicable	80	20	62	
	Blank	20	6	10	
116-117	<b>What is the highest grade or year of regular school head of family has ever attended?</b>				FQ B-7
	00 Never attended or kindergarten only	250	7	35	
	01-08 Elementary grade	2959	511	889	
	09-12 High school grade	2896	411	1445	
	13-16 College	1002	336	363	
	17 Graduate school	170	57	41	
	88 Blank but applicable	165	29	51	
	Blank	20	6	10	
118	<b>Did head of family finish that grade/year?</b>				FQ B-8
	1 Yes	5710	1171	2210	
	2 No	1316	137	492	
	8 Blank but applicable	166	36	87	
	Blank	270	13	45	
119	<b>Is the head of family now married, widowed, divorced, separated or has he or she never been married?</b>				FQ B-9
	0 Under 14	0	0	0	
	1 Married - spouse in household	5706	1059	1295	
	2 Married - spouse not in household	129	9	129	
	3 Widowed	333	48	133	
	4 Divorced	492	136	376	
	5 Separated	388	28	452	
	6 Never married	320	56	418	
	8 Blank but applicable	74	15	21	
	Blank	20	6	10	
120	<b>Did head of family ever serve in the Armed Forces of the United States?</b>				FQ B-11
	1 Yes	1478	64	383	
	2 No	5883	1265	2400	
	8 Blank but applicable	81	22	41	
	Blank	20	6	10	
121	<b>During the past 2 weeks, did head of family work at any time at a job or business, not counting work around the house?</b>				FQ B-12
	1 Yes	5443	1019	1283	
	2 No	1923	305	1504	
	8 Blank but applicable	76	27	37	
	Blank	20	6	10	
122	<b>Even though head of family did not work during those 2 weeks, did he or she have a job or business?</b>				FQ B-13
	1 Yes	101	19	28	
	2 No	1822	286	1476	
	8 Blank but applicable	76	27	37	
	Blank	5463	1025	1293	

Position	Item description and code	Counts			Source and notes
		M	C	P	
123	<b>Was head of family looking for work or on layoff from a job?</b>				FQ B-14
	1 Yes	510	61	118	
	2 No	1413	244	1384	
	8 Blank but applicable	76	27	39	
	Blank	5463	1025	1293	
124	<b>Which, looking for work or on layoff from a job or both?</b>				FQ B-15
	1 Looking	270	43	69	
	2 Layoff	151	12	26	
	3 Both	85	3	17	
	8 Blank but applicable	80	30	45	
	Blank	6876	1269	2677	
125-127	<b>What kind of business or industry does head of family work for?</b>				FQ B-19 See Note 9
	010-932 Industry code	5980	1080	1395	
	990 Blank but applicable	118	28	62	
	Blank	1364	249	1377	
128-130	<b>What kind of work was head of family doing?</b>				FQ B-20 See Note 9
	003-889 Occupation code	5988	1080	1391	
	999 Blank but applicable	110	28	66	
	Blank	1364	249	1377	
131	<b>Class of worker</b>				FQ B-22
	1 Employee of a private company, business or individual for wages, salary, or commission	4702	842	1058	
	2 A Federal government employee	219	4	45	
	3 A State government employee	246	12	54	
	4 A Local government employee	359	22	169	
	5 Self-employed in own incorporated business or professional practice	49	25	14	
	6 Self-employed in own unincorporated business, professional practice, or farm	420	171	56	
	7 Working without pay in family business or farm	0	0	0	
	8 Blank but applicable	99	32	60	
	0 Never worked or never worked at a full-time civilian job lasting 2 weeks or more	4	0	1	
	Blank	1364	249	1377	

Position	Item description and code	M	Counts C	P	Source and notes
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### SECTION G. FAMILY COMPOSITION AND INCOME DATA (POS 132-162)

Source: Family Questionnaire (FQ)

132-133	<b>Number of persons in family (computed)</b> 01-18 Persons	7462	1357	2834	
134-135	<b>Number of sample persons in family (computed)</b> 01-13 Persons	7462	1357	2834	
136	<b>Was the total combined family income during the past 12 months more or less than \$20,000? Include money from jobs, Social Security, retirement income, unemployment payments, public assistance, and so forth. Also include income net from interest, dividends, income from business, farm or rent, and any other money income received.</b>				FQ E-10
	1 \$20,000 or more	2353	536	578	
	2 Less than \$20,000	4856	795	2193	
	7 Refused information	31	1	7	
	8 Blank but applicable	202	19	46	
	Blank	20	6	10	
137-138	<b>Of those income groups, which best represents the total combined family income during the past 12 months? Include wages, salaries, and other items we just talked about. (in dollars)</b>				FQ E-11
	01 Less than 1,000	40	8	7	
	02 1,000 - 1,999	107	10	39	
	03 2,000 - 2,999	143	25	68	
	04 3,000 - 3,999	182	28	132	
	05 4,000 - 4,999	184	34	250	
	06 5,000 - 5,999	234	45	202	
	07 6,000 - 6,999	312	35	213	
	08 7,000 - 7,999	314	46	169	
	09 8,000 - 8,999	284	42	106	
	10 9,000 - 9,999	263	52	125	
	11 10,000 - 10,999	282	72	139	
	12 11,000 - 11,999	250	47	75	
	13 12,000 - 12,999	296	54	100	
	14 13,000 - 13,999	186	32	64	
	15 14,000 - 14,999	254	25	66	
	16 15,000 - 15,999	208	36	77	
	17 16,000 - 16,999	209	34	51	
	18 17,000 - 17,999	231	37	66	
	19 18,000 - 18,999	333	28	82	
	20 19,000 - 19,999	240	55	79	
	21 20,000 - 24,999	694	148	152	
	22 25,000 - 29,999	585	83	124	
	23 30,000 - 34,999	358	78	92	
	24 35,000 - 39,999	257	64	43	
	25 40,000 - 44,999	192	48	36	
	26 45,000 - 49,999	84	43	30	
	27 50,000 and over	107	55	54	
	77 Refused information	76	10	43	
	88 Blank but applicable	537	77	146	
	Blank	20	6	10	

Position	Item description, and code	Counts			Source and notes
		M	C	P	
139-143	<b>Per capita income</b> (computed) 00083-50000 Dollars 88888 Blank but applicable Blank	6829 613 20	1264 87 6	2636 189 9	See Note 11
144-146	<b>Poverty index</b> (computed) Decimal not shown on tape. 0.04-9.78 999 Blank but applicable Blank	6829 613 20	1264 87 6	2636 189 9	See Note 12
147	<b>Did any member of this family receive any Government food stamps in any of the past 12 months?</b> 1 Yes 2 No 8 Blank but applicable Blank	1651 5783 8 20	234 1115 2 6	1344 1474 6 10	FQ E-12
148-149	<b>In how many months of the past 12 months did any member of this family receive food stamps?</b> 01-12 Months 88 Blank but applicable Blank	1631 28 5803	234 2 1121	1335 15 1484	FQ E-13
150	<b>Did this family receive any government food stamps last month?</b> 1 Yes 2 No 8 Blank but applicable Blank	1345 303 11 5803	187 47 2 1121	1290 50 10 1484	FQ E-14
151-152	<b>In which month did any member of this family <u>last</u> receive food stamps?</b> 01-12 Month 88 Blank but applicable Blank	298 16 7148	47 2 1308	50 10 2774	FQ E-15
153-154	<b>For how many persons were those food stamps authorized?</b> 01-13 Persons 88 Blank but applicable Blank	1641 18 5803	234 2 1121	1337 13 1484	FQ E-16
155-157	<b>What was the total face value of those food stamps received by this family in that month?</b> 010-520 Dollars 888 Blank but applicable Blank	1567 92 5803	230 6 1121	1325 25 1484	FQ E-17
158	<b>Did this family spend more for food in that month than the value of your food stamps?</b> 1 Yes 2 No 8 Blank but applicable Blank	1405 231 23 5803	194 40 2 1121	1279 64 7 1484	FQ E-18



Position	Item description and code	M	Counts C	P	Source and notes
159-161	<b>How much more?</b>				FQ E-19
	003-880 Dollars	1314	182	1258	
	888 Blank but applicable	114	14	28	
	Blank	6034	1161	1548	
162	<b>Is your family receiving food stamps at the present time?</b>				FQ E-20
	1 Yes	1273	175	1269	
	2 No	6153	1171	1542	
	8 Blank but applicable	16	5	13	
	Blank	20	6	10	

Position	Item description and code	M	Counts C	P	Source and notes
<b>SECTION H. RESIDENCE AND HOUSEHOLD DATA (POS 163-183)</b>					
Source: Family Questionnaire (FQ) Household Screener Questionnaire (HSQ)					
163	<b>Size of place</b>				See Note 13
	1 1 million or more	1049	0	2070	
	2 500,000 - 999,999	844	0	0	
	3 250,000 - 499,999	884	467	0	
	4 100,000 - 249,999	203	364	368	
	5 50,000 - 99,999	1277	70	76	
	6 25,000 - 49,999	785	205	216	
	7 10,000 - 24,999	746	120	79	
	8 200 - 9,999	1003	88	24	
	9 Not in a place	671	43	1	
164	<b>Standard Metropolitan Statistical Area</b>				See Note 13
	1 In SMSA, in central city	3707	467	2465	
	2 In SMSA, not in central city	2854	890	369	
	4 Not in SMSA	901	0	0	
165-166	<b>Number of persons in household</b>				HSQ 1a
	01-18 Persons	7462	1357	2834	
167-168	<b>Number of sample persons in household (computed)</b>				
	01-13 Persons	7462	1357	2834	
169-170	<b>How many rooms are in this home? Count the kitchen, but not the bathroom.</b>				FQ E-1
	01-14 Rooms	7433	1350	2816	
	88 Blank but applicable	9	1	8	
	Blank	20	6	10	
171	<b>Do you have access to complete kitchen facilities in this home; that is, a kitchen sink with piped water, a refrigerator and a range or cookstove?</b>				FQ E-2
	1 Yes	7136	1315	2548	
	2 No	83	10	18	
	8 Blank but applicable	223	26	258	
	Blank	20	6	10	
172-173	<b>What is the main fuel used for heating this home?</b>				FQ E-3 See Note 14
	00 No fuel used	538	231	16	
	01 Oil	4	0	1988	
	02 Natural gas	5955	78	718	
	03 Electricity	604	1027	37	
	04 Bottled gas (propane)	174	2	0	
	05 Kerosene	13	3	0	
	06 Wood	98	3	0	
	07 Coal	0	0	14	
	08 Other, not specified	0	0	2	
	09 Other, specified	11	0	8	
	88 Blank but applicable	45	7	41	
	Blank	20	6	10	

Position	Item description and code	M	Counts C	P	Source and notes
174-175	<b>What is the main heating equipment for this home?</b>				FQ E-4 See Note 14
	00 No heating equipment used	538	231	20	
	01 Steam or hot water with radiators or convectors	44	5	1450	
	02 Central warm air furnace with ducts to individual rooms, or central heat pump	2677	542	180	
	03 Built-in electric units (permanently installed in wall, ceiling, or baseboard)	474	323	63	
	04 Floor, wall or pipeless furnace	1598	46	21	
	05 Room heaters <u>with</u> flue or vent, burning oil, gas, or kerosene	805	17	596	
	06 Room heaters <u>without</u> flue or vent, burning oil, gas, or kerosene	847	6	425	
	07 Heating stove burning wood, coal or coke	88	0	9	
	08 Fireplace(s)	91	4	0	
	09 Portable electric heater(s)	139	137	4	
	10 Other, not specified	0	0	0	
	11 Other, specified	114	35	16	
	88 Blank but applicable	1	5	23	
	99 Don't know	26	0	17	
	Blank	20	6	10	
176-177	<b>Are any other types of equipment used for heating this home?</b>				FQ E-5 See Note 14
	00 No other heating equipment used	6057	1073	2350	
	01 Steam or hot water with radiators or convectors	0	0	13	
	02 Central warm air furnace with ducts to individual rooms, or central heat pump	11	15	7	
	03 Built-in electric units (permanently installed in wall, ceiling, or baseboard)	24	0	2	
	04 Floor, wall or pipeless furnace	11	0	0	
	05 Room heaters <u>with</u> flue or vent, burning oil, gas, or kerosene	22	0	3	
	06 Room heaters <u>without</u> flue or vent, burning oil, gas, or kerosene	22	1	29	
	07 Heating stove burning wood, coal or coke	70	0	8	
	08 Fireplace(s)	449	8	9	
	09 Portable electric heater(s)	186	18	351	
	10 Other, not specified	4	2	3	
	11 Other, specified	18	2	4	
	88 Blank but applicable	30	1	25	
	Blank	558	237	30	
178-179	<b>What is the main fuel used by this additional equipment?</b>				FQ E-6 See Note 14
	00 No fuel used	2	0	2	
	01 Oil	0	0	20	
	02 Natural gas	96	2	27	
	03 Electricity	214	35	345	
	04 Bottled gas (propane)	9	0	1	
	05 Kerosene	2	0	25	
	06 Wood	471	8	11	
	07 Coal	2	0	0	
	08 Other, not specified	0	0	0	
	09 Other, specified	7	0	0	
	88 Blank but applicable	44	2	23	
	Blank	6615	1310	2380	

Position	Item description and code	M	Counts C	P	Source and notes
180-181	<b>What is the main fuel used for cooking in this home?</b>				FQ E-7
	00 No fuel used	21	4	4	
	01 Oil	14	0	31	
	02 Natural gas	5899	253	2603	
	03 Electricity	1295	1083	148	
	04 Bottled gas (propane)	182	8	12	
	05 Kerosene	0	0	3	
	06 Wood	0	0	0	
	07 Coal	0	0	0	
	08 Other, not specified	0	0	0	
	09 Other, specified	14	1	0	
	88 Blank but applicable	17	2	23	
	Blank	20	6	10	
182	<b>Do you have air-conditioning - either individual room units, a central system or evaporative cooling?</b>				FQ E-8
	1 Yes	3583	1254	653	
	2 No	3845	96	2153	
	8 Blank but applicable	14	1	18	
	Blank	20	6	10	
183	<b>Which do you have?</b>				FQ E-9
	1 Individual room unit	1625	583	613	
	2 Central air-conditioning	1233	660	22	
	3 Evaporative cooling	719	6	10	
	8 Blank but applicable	20	6	26	
	Blank	3865	102	2163	

Position	Item description and code	M	Counts C	P	Source and notes
<b>SECTION I. SAMPLE WEIGHTS (POS 184-217)</b>					
184-189	<b>Examined final weight</b>				
	000439-002711	7462	-	-	
	000223-000891	-	1357	-	
	000177-002000	-	-	2834	
190-195	<b>Interview final weight</b>				
	000447-002096	7462	-	-	
	000176-000604	-	1357	-	
	000175-001220	-	-	2834	
<b>GTT/ULTRASOUND, AUDIOMETRY/VISION, PESTICIDE WEIGHTS</b>					
By design, only some of the persons in the sample were included in the GTT/ultrasound, audiometry/vision, and pesticide components of the survey. Tape positions for those persons not part of these subsamples are BLANK.					
196-201	<b>GTT/ultrasound weight</b>				
	000843-005302	1777	-	-	
	000469-001685	-	449	-	
	000349-003110	-	-	667	
	Blank	5685	908	2167	
202-207	<b>Audiometry/vision weight</b>				
	000507-006283	4431	-	-	
	000223-001600	-	804	-	
	000264-003123	-	-	1759	
	Blank	3031	553	1075	
208-213	<b>Pesticide weight</b>				
	000872-005584	2465	-	-	
	000441-001600	-	568	-	
	000343-003117	-	-	1012	
	Blank	4997	789	1822	
214-215	<b>Strata code</b>				
	01-08	7462	1357	2834	
216-217	<b>Pseudo PSU code</b>				
	01-02	7462	1357	2834	

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Position	Item description and code	M	Counts C	P	Source and notes
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**SECTION J. FAMILY RELATIONSHIPS (POS 218-400)**Source: Adult Sample Person Questionnaire  
Family Questionnaire218-400 **Blank**  
Data not yet available.

Position	Item description and code	Counts			Source and notes
		M	C	P	
<b>SECTION K. MEDICAL HISTORY DATA-HEARING (POS 401-432)</b>					
Source: Child Sample Person Questionnaire (CSPQ) Adult Sample Person Questionnaire (ASPC)					
401-404	Blank				
POSITIONS 406-424 CONTAIN SELECTED INTERVIEW DATA ON CHILDREN AGES 6 MONTHS THROUGH 11 YEARS. THIS DATA IS ALSO FOUND ON HHANES DATA TAPE NUMBER 6522 (CHILD HISTORY QUESTIONNAIRE)					
405	<b>Subsample Indicator</b>				
	0 Ages 6 months-5 years	1254	104	408	
	1 Ages 6-11 years	1296	133	437	
	Blank Ages 12-74 years	4912	1120	1989	
406	<b>Was the sample person born with any physical or mental problem or defect?</b>				CSPQ A-11
	1 Yes	184	14	92	
	2 No	2364	223	751	
	8 Blank but applicable	2	0	2	
	Blank	4912	1120	1989	
407	<b>Did the sample person's problem or defect involve his or her ears?</b>				CSPQ A-12
	1 Yes	8	1	8	
	2 No	173	12	81	
	8 Blank but applicable	3	0	4	
	9 Don't know	2	1	1	
	Blank	7276	1343	2740	
408	<b>Did the sample person ever have an ear infection or an earache?</b>				CSPQ D-14 See Note 15
	1 Yes	1360	126	477	
	2 No	1181	111	364	
	9 Don't know	9	0	4	
	Blank	4912	1120	1989	
409	<b>How many times has the sample person had an ear infection or an earache?</b>				CSPQ D-15
	1 Only once	387	40	97	
	2 Twice	295	25	93	
	3 3-5 times	383	35	134	
	4 6 or more times	285	22	148	
	8 Blank but applicable	1	1	1	
	9 Don't know	9	3	4	
	Blank	6102	1231	2357	
410	<b>Was the sample person ever treated by a doctor for (any of) his or her ear infection(s) or earache(s)?</b>				CSPQ D-16
	1 Yes	1169	114	444	
	2 No	188	12	32	
	8 Blank but applicable	1	0	1	
	9 Don't know	2	0	0	
	Blank	6102	1231	2357	

Position	Item description and code	Counts			Source and notes
		M	C	P	
411	<b>Did a doctor ever treat an ear infection or earache the sample person had by placing tubes in his or her ear?</b>				CSPQ D-17
	1 Yes	102	21	63	
	2 No	1060	93	378	
	8 Blank but applicable	3	0	2	
	9 Don't know	5	0	2	
	Blank	6292	1243	2389	
412	<b>Has the sample person ever had a ruptured eardrum?</b>				CSPQ D-18
	1 Yes	72	1	14	
	2 No	2469	235	825	
	8 Blank but applicable	0	1	2	
	9 Don't know	9	0	4	
	Blank	4912	1120	1989	
413	<b>Has the sample person <u>ever</u> had a running ear or any discharge from his or her ears, not counting wax in the ear?</b>				CSPQ D-19 See Note 15
	1 Yes	241	12	72	
	2 No	2307	224	773	
	8 Blank but applicable	0	1	0	
	9 Don't know	2	0	0	
	Blank	4912	1120	1989	
414	<b>How many times has the sample person had a running ear or any discharge from his or her ear?</b>				CSPQ D-20
	1 Only once	132	5	28	
	2 Twice	38	3	14	
	3 3-5 times	43	0	10	
	4 6 or more times	28	4	19	
	8 Blank but applicable	0	1	0	
	9 Don't know	0	0	1	
	Blank	7221	1344	2762	
415	<b>Did the sample person ever see a doctor because of this condition?</b>				CSPQ D-21
	1 Yes	213	12	71	
	2 No	27	0	1	
	8 Blank but applicable	0	1	0	
	9 Don't know	1	0	0	
	Blank	7221	1344	2762	
416	<b>Has the sample person <u>ever</u> had trouble hearing with one or both ears? Do not include any problems which lasted just a short period of time such as during a cold.</b>				CSPQ D-22 See Note 16
	1 Yes	126	7	51	
	2 No	2423	229	793	
	8 Blank but applicable	1	1	1	
	Blank	4912	1120	1989	
417	<b>How old was the sample person when he or she first began having trouble hearing?</b>				CSPQ D-23
	1 Under 1 year old	20	1	5	
	2 1-4 years old	41	5	23	
	3 5-11 years old	65	1	16	
	8 Blank but applicable	1	1	8	
	Blank	7335	1349	2782	



Position	Item description and code	Counts			Source and notes
		M	C	P	
418	<b>Since this trouble began, has it gotten worse, gotten better, or stayed about the same?</b>				CSPQ D-24
	1 Gotten worse	12	0	5	
	2 Gotten better	52	5	22	
	3 Stayed the same	60	2	16	
	8 Blank but applicable	3	1	9	
	Blank	7335	1349	2782	
419	<b>Did the sample person <u>ever</u> see a doctor about it?</b>				CSPQ D-25
	1 Yes	78	7	40	
	2 No	48	0	3	
	8 Blank but applicable	1	1	9	
	Blank	7335	1349	2782	
420	<b>Does the sample person still have trouble hearing with one or both ears?</b>				CSPQ D-26 See Note 17
	1 Yes	82	2	27	
	2 No	41	5	16	
	8 Blank but applicable	4	1	9	
	Blank	7335	1349	2782	
421	<b>Has the sample person ever used a hearing aid?</b>				CSPQ D-27
	1 Yes	8	2	4	
	2 No	2540	234	839	
	8 Blank but applicable	2	1	2	
	Blank	4912	1120	1989	
422	<b>How would you describe the sample person's hearing (without a hearing aid) - good, has a little trouble, has a lot of trouble, or is deaf?</b>				CSPQ D-28 See Note 17
	1 Good	2409	231	781	
	2 Little trouble	126	3	54	
	3 Lot of trouble	6	1	6	
	4 Deaf	4	0	1	
	8 Blank but applicable	5	2	3	
	Blank	4912	1120	1989	
423	<b>Has the sample person <u>ever</u> had an operation on his or her ears?</b>				CSPQ D-29
	1 Yes	21	4	9	
	2 No	2520	231	832	
	8 Blank but applicable	9	2	4	
	Blank	4912	1120	1989	
424	<b>When was the last time the sample person had his or her hearing tested?</b>				CSPQ D-30
	1 6 months ago or less	627	106	418	
	2 Over 6 months - 12 months	481	44	170	
	3 Over 12 months to - 2 years	251	20	59	
	4 Over 2 years - 5 years	151	20	41	
	5 Never	944	38	130	
	8 Blank but applicable	0	1	1	
	9 Don't know	96	8	26	
	Blank	4912	1120	1989	

Position	Item description and code	Counts			Source and notes
		M	C	P	
<b>POSITIONS 426-432 CONTAIN SELECTED INTERVIEW DATA ON PERSONS 12 THROUGH 74 YEARS. THE SAME DATA IS ALSO FOUND ON HHANES DATA TAPE NUMBER 6521 (ADOLESCENT AND ADULT HISTORY QUESTIONNAIRE)</b>					
425	<b>Subsample Indicator</b>				
	1 Ages 12-74 years old	4912	1120	1989	
	Blank Ages 6 months-11 years old	2550	237	845	
426	<b>Have you <u>ever</u> had trouble hearing with one or both ears? Do not include any problems which lasted just a short period of time such as during a cold.</b>				ASPQ D-11
	1 Yes	761	118	249	
	2 No	4149	1002	1739	
	8 Blank but applicable	1	0	0	
	Blank	2551	237	846	
427	<b>Did you <u>ever</u> see a doctor about it?</b>				ASPQ D-12
	1 Yes	413	81	164	
	2 No	346	37	85	
	8 Blank but applicable	3	0	0	
	Blank	6700	1239	2585	
428	<b>How old were you when you first began having trouble hearing?</b>				ASPQ D-13
	1 0-4 years old	39	8	18	
	2 5-9 years old	68	9	23	
	3 10-19 years old	173	12	70	
	4 20-29 years old	145	14	38	
	5 30-39 years old	106	21	25	
	6 40-49 years old	100	23	40	
	7 50 years old or older	125	31	33	
	8 Blank but applicable	6	0	2	
	Blank	6700	1239	2585	
429	<b>Since this trouble began, has it gotten worse, gotten better, or stayed about the same?</b>				ASPQ D-14
	1 Gotten worse	139	19	44	
	2 Gotten better	162	24	70	
	3 Stayed the same	458	75	135	
	8 Blank but applicable	3	0	0	
	Blank	6700	1239	2585	
430	<b>Have you <u>ever</u> had an operation on your ears? (Including having tubes placed in ears.)</b>				ASPQ D-15
	1 Yes	67	16	29	
	2 No	693	102	220	
	8 Blank but applicable	2	0	0	
	Blank	6700	1239	2585	
431	<b>Have you <u>ever</u> used a hearing aid?</b>				ASPQ D-16
	1 Yes	32	7	16	
	2 No	728	110	233	
	8 Blank but applicable	2	1	0	
	Blank	6700	1239	2585	

Position	Item description and code	M	Counts C	P	Source and notes
432	<b>How would you describe your hearing (without a hearing aid) - good, you have a little trouble, you have a lot of trouble, or you are deaf?</b>				ASPQ D-17
	1 Good	228	38	77	
	2 Little trouble	472	65	144	
	3 Lot of trouble	54	10	24	
	4 Deaf	6	4	4	
	8 Blank but applicable	2	1	0	
	Blank	6700	1239	2585	

Position	Item description and code	M	Counts C	P	Source and notes
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### SECTION L. PHYSICAL FINDINGS - EARS (POS 433-460)

Source: Physician's Examination

**POSITIONS 433-460 CONTAIN PHYSICAL FINDINGS RELATED TO THE EAR FROM THE PHYSICIAN'S EXAMINATION. THIS DATA IS ALSO FOUND ON HHANES DATA TAPE NUMBER 6509 (PHYSICIAN'S EXAMINATION)**

**POSITIONS 433-436 CONTAIN FINDINGS ON THE AUDITORY CANAL**

433	<b>Right auditory canal-otitis externa</b>				
	1 Yes		14	2	5
	4 No	7302	1339	2750	
	8 Blank but applicable		11	4	9
	Blank	135	12	70	
434	<b>Left auditory canal-otitis externa</b>				
	1 Yes		8	3	3
	4 No	7308	1338	2752	
	8 Blank but applicable		11	4	9
	Blank	135	12	70	
435	<b>Right auditory canal-purulent discharge</b>				
	1 Yes		6	0	0
	4 No	7309	1339	2755	
	8 Blank but applicable		12	6	9
	Blank	135	12	70	
436	<b>Left auditory canal-purulent discharge</b>				
	1 Yes		3	1	3
	4 No	7313	1338	2753	
	8 Blank but applicable		11	6	8
	Blank	135	12	70	

**POSITIONS 437-460 CONTAIN FINDINGS ON THE EARDRUM**

**VISUALIZED**

437	<b>Right eardrum</b>				See Note 18
	Blank visualized or exam not given	6782	1055	2413	
	1 Not visualized, other	378	43	67	
	2 Not visualized, canal completely occluded	301	254	346	
	8 Blank but applicable	1	5	8	
438	<b>Left eardrum</b>				See Note 18
	Blank visualized or exam not given	6851	1060	2408	
	1 Not visualized, other	319	44	76	
	2 Not visualized, canal completely occluded	291	248	342	
	8 Blank but applicable	1	5	8	
439	<b>Right eardrum-dull (opaque)</b>				
	1 Yes		84	9	34
	4 No	6560	1034	2309	
	8 Blank but applicable		4	5	8
	Blank	814	309	483	
440	<b>Left eardrum-dull (opaque)</b>				
	1 Yes		79	9	46
	4 No	6634	1039	2291	
	8 Blank but applicable		4	5	9
	Blank	745	304	488	

Position	Item description and code	Counts			Source and notes
		M	C	P	
441	<b>Right eardrum-transparent</b>				
	1 Yes	74	3	15	
	4 No	6570	1040	2328	
	8 Blank but applicable	4	5	8	
	Blank	814	309	483	
442	<b>Left eardrum-transparent</b>				
	1 Yes	89	4	21	
	4 No	6624	1044	2317	
	8 Blank but applicable	4	5	8	
	Blank	745	304	488	
443	<b>Right eardrum-bulging</b>				
	1 Yes	2	0	6	
	4 No	6642	1043	2337	
	8 Blank but applicable	4	5	8	
	Blank	814	309	483	
444	<b>Left eardrum-bulging</b>				
	1 Yes	1	0	11	
	4 No	6712	1048	2327	
	8 Blank but applicable	4	5	8	
	Blank	745	304	488	
445	<b>Right eardrum-retracted</b>				
	1 Yes	114	4	16	
	4 No	6529	1039	2327	
	8 Blank but applicable	5	5	8	
	Blank	814	309	483	
446	<b>Left eardrum-retracted</b>				
	1 Yes	143	15	33	
	4 No	6569	1033	2305	
	8 Blank but applicable	5	5	8	
	Blank	745	304	488	
447	<b>Right eardrum-calcium plaques</b>				
	1 Yes	78	2	24	
	4 No	6566	1041	2318	
	8 Blank but applicable	4	5	9	
	Blank	814	309	483	
448	<b>Left eardrum-calcium plaques</b>				
	1 Yes	85	4	20	
	4 No	6628	1044	2317	
	8 Blank but applicable	4	5	9	
	Blank	745	304	488	
449	<b>Right eardrum-reddened</b>				
	1 Yes	95	17	30	
	4 No	6549	1026	2312	
	8 Blank but applicable	4	5	9	
	Blank	814	309	483	
450	<b>Left eardrum-reddened</b>				
	1 Yes	107	21	30	
	4 No	6607	1027	2307	
	8 Blank but applicable	3	5	9	
	Blank	745	304	488	

Position	Item description and code	Counts			Source and notes
		M	C	P	
451	<b>Right eardrum-other discoloration</b>				
	1 Yes	8	0	15	
	4 No	6635	1043	2328	
	8 Blank but applicable	5	5	8	
	Blank	814	309	483	
452	<b>Left eardrum-other discoloration</b>				
	1 Yes	11	0	24	
	4 No	6701	1048	2314	
	8 Blank but applicable	5	5	8	
	Blank	745	304	488	
453	<b>Right eardrum-fluid</b>				
	1 Yes	20	0	2	
	4 No	6622	1043	2340	
	8 Blank but applicable	6	5	9	
	Blank	814	309	483	
454	<b>Left eardrum-fluid</b>				
	1 Yes	30	0	7	
	4 No	6681	1048	2330	
	8 Blank but applicable	6	5	9	
	Blank	745	304	488	
455	<b>Right eardrum-scars</b>				
	1 Yes	551	12	36	
	4 No	6091	1031	2307	
	8 Blank but applicable	6	5	8	
	Blank	814	309	483	
456	<b>Left eardrum-scars</b>				
	1 Yes	608	18	65	
	4 No	6101	1030	2273	
	8 Blank but applicable	8	5	8	
	Blank	745	304	488	
457	<b>Right eardrum-perforation with discharge</b>				
	1 Yes	5	0	3	
	4 No	6638	1043	2340	
	8 Blank but applicable	5	5	8	
	Blank	814	309	483	
458	<b>Left eardrum-perforation with discharge</b>				
	1 Yes	9	0	0	
	4 No	6703	1048	2338	
	8 Blank but applicable	5	5	8	
	Blank	745	304	488	

Position	Item description and code	M	Counts C	P	Source and notes
459	<b>Right eardrum-perforation without discharge</b>				
	1 Yes	39	0	9	
	4 No	6604	1043	2334	
	8 Blank but applicable	5	5	8	
	Blank	814	309	483	
460	<b>Left eardrum-perforation without discharge</b>				
	1 Yes	28	0	11	
	4 No	6684	1048	2327	
	8 Blank but applicable	5	5	8	
	Blank	745	304	488	
461-500	<b>Blank</b>	7462	1357	2834	

Position	Item description and code	Counts			Source and notes
		M	C	P	
<b>SECTION M. AUDIOMETRIC AIR CONDUCTION DATA (POS. 501-633)</b>					
Source: Audiometry Recording Form (ARF)					
501-504	<b>Tape number</b> 6502	7462	1357	2834	Numbers in this column other than notes are the circled numbers shown on the recording form (Appendix 1)
505	<b>Audiometric examination form blank</b>				See Note 19
	1 Yes	19	3	10	
	2 No	4412	801	1749	
	Blank	3031	553	1075	
506-510	<b>Audiometer number</b> 20725-21244 As given Blank	4412 3050	801 556	1749 1085	ARF 102
511-513	<b>Examiner number</b> 101-130 As given Blank	4412 3050	801 556	1749 1085	ARF 103
<b>1000 HERTZ-RIGHT EAR (Pos. 514-523)</b>					
514-517	<b>Retest right with masking on left</b> +030 through +095 As given in decibels 8888 Blank but applicable Blank	15 2 7445	3 0 1354	2 3 2829	ARF 105
518	<b>Attenuator pad present</b>				See Note 20
	1 No	6	2	1	
	2 Yes	9	1	1	
	8 Blank but applicable	2	0	3	
	Blank	7445	1354	2829	
519-522	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4396 16 3050	798 3 556	1742 7 1085	ARF 106
523	<b>Attenuator pad present</b>				See Note 20
	1 No	13	16	6	
	2 Yes	4383	782	1736	
	8 Blank but applicable	16	3	7	
	Blank	3050	556	1085	



Position	Item description and code	M	Counts C	P	Source and notes
<b>1000 HERTZ-LEFT EAR (POS 524-533)</b>					
524-527	<b>Retest left with masking on right</b> +035 through +105 As given in decibels 8888 Blank but applicable Blank	17 2 7443	3 1 1353	2 1 2831	ARF 124
528	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	7 10 2 7443	2 1 1 1353	2 0 1 2831	See Note 20
529-532	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4395 17 3050	799 2 556	1742 7 1085	ARF 125
533	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	14 4381 17 3050	16 783 2 556	9 1733 7 1085	See Note 20
<b>2000 HERTZ-RIGHT EAR (POS 534-543)</b>					
534-537	<b>Retest right with masking on left</b> +040 through +095 As given in decibels 8888 Blank but applicable Blank	15 2 7445	2 0 1355	3 2 2829	ARF 107
538	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	5 10 2 7445	2 0 0 1355	2 1 2 2829	See Note 20
539-542	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4396 16 3050	798 3 556	1742 7 1085	ARF 108
543	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	15 4381 16 3050	15 783 3 556	6 1736 7 1085	See Note 20

Position	Item description and code	Counts			Source and notes
		M	C	P	
<b>2000 HERTZ-LEFT EAR (POS 544-553)</b>					
544-547	<b>Retest left with masking on right</b> +020 through +105 As given in decibels 8888 Blank but applicable Blank	15 4 7443	6 0 1351	6 1 2827	ARF 126
548	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	6 9 4 7443	6 0 0 1351	3 3 1 2827	See Note 20
549-552	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4394 18 3050	799 2 556	1742 7 1085	ARF 127
553	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	16 4378 18 3050	14 785 2 556	10 1732 7 1085	See Note 20
<b>4000 HERTZ-RIGHT EAR (POS 554-563)</b>					
554-557	<b>Retest right with masking on left</b> +030 through +100 As given in decibels 8888 Blank but applicable Blank	24 1 7437	4 0 1353	4 1 2829	ARF 109
558	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	6 18 1 7437	3 1 0 1353	2 2 1 2829	See Note 20
559-562	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4395 17 3050	798 3 556	1742 7 1085	ARF 110
563	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	21 4374 17 3050	18 780 3 556	7 1735 7 1085	See Note 20

Position	Item description and code	M	Counts C	P	Source and notes
<b>4000 HERTZ - LEFT EAR (POS 564-573)</b>					
564-567	<b>Retest left with masking on right</b> +000 through +105 As given in decibels 8888 Blank but applicable Blank	31 9 7422	8 1 1348	8 1 2825	ARF 128
568	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	8 23 9 7422	7 1 1 1348	5 3 1 2825	See Note 20
569-572	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4392 20 3050	799 2 556	1742 7 1085	ARF 129
573	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	23 4369 20 3050	18 781 2 556	10 1732 7 1085	See Note 20
<b>500 HERTZ-RIGHT EAR (POS 574-583)</b>					
574-577	<b>Retest right with masking on left</b> +055 through +095 As given in decibels 8888 Blank but applicable Blank	14 4 7444	3 0 1354	3 1 2830	ARF 111
578	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	5 9 4 7444	2 1 0 1354	2 1 1 2830	See Note 20
579-582	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4394 18 3050	798 3 556	1742 7 1085	ARF 112
583	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	13 4381 18 3050	15 783 3 556	6 1736 7 1085	See Note 20

Position	Item description and code	Counts			Source and notes
		M	C	P	
<b>500 HERTZ-LEFT EAR (POS 584-593)</b>					
584-587	<b>Retest left with masking on right</b> +040 through +105 As given in decibels 8888 Blank but applicable Blank	16 5 7441	2 0 1355	4 1 2829	ARF 130
588	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	6 10 5 7441	2 0 0 1355	2 2 1 2829	See Note 20
589-592	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4393 19 3050	799 2 556	1742 7 1085	ARF 131
593	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	14 4379 19 3050	14 785 2 556	9 1733 7 1085	See Note 20
<b>REPEATED 1000 HERTZ-RIGHT EAR (POS 594-603)</b>					
594-597	<b>Retest right with masking on left</b> +045 through +095 As given in decibels 8888 Blank but applicable Blank	13 3 7446	3 1 1353	3 1 2830	ARF 113
598	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	5 8 3 7446	2 1 1 1353	1 2 1 2830	See Note 20
599-602	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4394 18 3050	798 3 556	1742 7 1085	ARF 114
603	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	13 4381 18 3050	16 782 3 556	6 1736 7 1085	See Note 20

Position	Item description and code	M	Counts C	P	Source and notes
<b>REPEATED 1000 HERTZ-LEFT EAR (POS 604-613)</b>					
604-607	<b>Retest left with masking on right</b> +040 through +105 As given in decibels 8888 Blank but applicable Blank	16 3 7443	3 0 1354	3 2 2829	ARF 132
608	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	7 9 3 7443	2 1 0 1354	3 0 2 2829	See Note 20
609-612	<b>Hearing level</b> -015 through +105 As given in decibels 8888 Blank but applicable Blank	4393 19 3050	798 3 556	1742 7 1085	ARF 133
613	<b>Attenuator pad present</b> 1 No 2 Yes 8 Blank but applicable Blank	14 4379 19 3050	15 783 3 556	9 1733 7 1085	See Note 20
<b>CONDITIONS AFFECTING TEST RESULTS-RIGHT EAR (POS. 614-623)</b>					
614	<b>None</b> 1 Yes Blank	3202 4260	565 792	1247 1587	ARF 115
615	<b>Cold or sinusitis now</b> 1 Yes Blank	702 6760	154 1203	344 2490	ARF 116
616	<b>Ear discharge</b> 1 Yes Blank	16 7446	0 1357	19 2815	ARF 117
617	<b>Ringings or other noises in ear</b> 1 Yes Blank	215 7247	26 1331	98 2736	ARF 118
618	<b>Equipment defect</b> 1 Yes Blank	6 7456	0 1357	1 2833	ARF 119
619	<b>Cold or sinusitis within one week</b> 1 Yes Blank	181 7281	22 1335	31 2803	ARF 120
620	<b>Earache within one week</b> 1 Yes Blank	53 7409	13 1344	27 2807	ARF 121

Position	Item description and code	Counts			Source and notes
		M	C	P	
621	<b>Hearing aid worn</b>				ARF 122
	1 Yes	4	0	4	
	Blank	7458	1357	2830	
622	<b>Pads out</b>				ARF 143 See Note 20
	1 Yes	25	22	10	
	Blank	7437	1335	2824	
623	<b>Other-describe</b>				ARF 123
	1 Allergies or Asthma	39	3	10	
	2 Loud noise exposure: Listens to amplified music, has worked in noisy environment, gunshots	22	5	5	
	3 Excessive cerumen in ear canal	8	2	4	
	4 Ear infection, headache, sore throat, runny nose, cough, popping, itching ear	39	1	12	
	5 Self perceived occasional or chronic hearing loss	19	7	4	
	6 Questionable reliability: child crying or other reason	17	2	5	
	7 Perforated eardrum or previous ear surgery (including ventilating tube)	18	5	6	
	8 Other	22	7	18	
	Blank	7278	1325	2770	
	<b>CONDITIONS AFFECTING TEST RESULTS-LEFT EAR (POS 624-633)</b>				
624	<b>None</b>				ARF 134
	1 Yes	3195	571	1244	
	Blank	4267	786	1590	
625	<b>Cold or sinusitis now</b>				ARF 135
	1 Yes	702	154	344	
	Blank	6760	1203	2490	
626	<b>Ear discharge</b>				ARF 136
	1 Yes	19	1	17	
	Blank	7443	1356	2817	
627	<b>Ringing or other noises in ear</b>				ARF 137
	1 Yes	211	19	103	
	Blank	7251	1338	2731	
628	<b>Equipment defect</b>				ARF 138
	1 Yes	3	0	2	
	Blank	7459	1357	2832	
629	<b>Cold or sinusitis within one week</b>				ARF 139
	1 Yes	181	22	31	
	Blank	7281	1335	2803	

Position	Item description and code	M	Counts C	P	Source and notes
630	<b>Earache within one week</b>				ARF 140
	1 Yes	56	9	23	
	Blank	7406	1348	2811	
631	<b>Hearing aid worn</b>				ARF 141
	1 Yes	7	0	2	
	Blank	7455	1357	2832	
632	<b>Pads out</b>				ARF 144
	1 Yes	29	25	13	
	Blank	7433	1332	2821	
633	<b>Other-describe</b>				ARF 142
	1 Allergies or Asthma	40	3	10	
	2 Loud noise exposure: Listens to amplified music, has worked in noisy environment, gunshots	24	5	4	
	3 Excessive cerumen in ear canal	8	2	3	
	4 Ear infection, headache, sore throat, runny nose, cough, popping, itching ear	44	2	10	
	5 Self perceived occasional or chronic hearing loss	26	5	5	
	6 Questionable reliability: child crying or other reason	17	2	6	
	7 Perforated eardrum or previous ear surgery (including ventilating tube)	11	4	7	
	8 Other	18	7	19	
	Blank	7274	1327	2770	
634-700	<b>Blank</b>				

## SECTION N. NOTES

### 1. Family Questionnaire Missing

A Family Questionnaire was to be completed for each eligible family in a household with sample persons. However, a few Family Questionnaires are missing. Data records for sample persons in families with missing questionnaires are flagged with a code = 1, and all family data are blank. Data records for sample persons in families with a Family Questionnaire are flagged with a code = 2.

During the Mexican-American portion of the HHANES survey, a Family Questionnaire continuation booklet containing sample person information was lost for one sample person. Therefore, the sociodemographic data for this sample person are missing. The reference person, family composition, income, residence, and household data for this person were obtained from another person in the household.

### 2. Examination Status

Not all sample persons consented to come to a Mobile Examination Center to participate in the examination phase of the survey. In certain rare instances (less than 0.1%), sample persons who came to the Mobile Examination Centers did not participate in sufficient components of the examination to be considered as "examined." This data field contains code = 1 for those persons who participated fully in the examination phase, and code = 2 for those who did not come to the examination center or who did not satisfactorily complete the examination.

### 3. Family Number

In HHANES, all household members who were related by blood, marriage, or adoption were considered to be one "family." All sample persons in the same family unit have the same computer-generated family unit code.

### 4. Head of Family

#### Relationship of Sample Person to Head of Family (Pos. 44-45)

Each family containing sample persons has a designated "head of family," and the relationship of each sample person to the head of his or her family is coded in tape positions 44-45. The first three categories of this variable describe the "head" of three different kinds of families.

- o Code '01' identifies sample persons who lived alone (i.e., "head" of one-person families, no unrelated individuals living in the household).
- o Code '02' identifies sample persons who lived only with unrelated persons.
- o Code '03' identifies sample persons who were "heads" of families containing at least one other person (whether or not the household included additional families unrelated to the sample person).



Sociodemographic Data (Pos. 100-131)

This data tape includes some sociodemographic data about the head of each sample person's family (Section F). Because there can only be one "head" per family, the data in this section (positions 100-131) are the same for all sample persons in the same family (i.e., with the same family number codes in positions 39-43). If the sample person is the head of his or her family, the data in positions 100-131 are the same as in the corresponding positions in Section E.

5. Observed Race

"Race" was observed by the interviewer for all sample persons actually seen. Rules for classification of observed race were consistent with those used in the NHANES II and the National Health Interview Survey at that time. The categories were coded as follows:

- White Includes Spanish origin persons unless they are definitely Black, Indian or other nonwhite.  
Black Black or Negro.  
Other Race other than White or Black, including Japanese, Chinese, American Indian, Korean, Eskimo.

6. National Origin or Ancestry

The value for national origin or ancestry is based on Item 2c in the Household Screener Questionnaire and was reported by the household respondent for all household members. In the Mexican-American portion of the survey, if "other Latin-American or other Spanish" (code 9) or "Other" (code 0) was recorded and the specified origin was "Spanish-American" or "Spanish (Spain)", a code of 10 or 11, respectively, was assigned. In all three portions of the survey, if more than one category was reported, the first appropriate "Hispanic" code, if any, was assigned (codes 1, 2, 3, 8, 10, or 11 in the Mexican-American portion; codes 6 or 7 in the Cuban-American portion; codes 4 or 5 in the Puerto Rican portion). If none of these codes was recorded, the first category entered was coded.

7. Codes for States and Foreign Countries

Code	State or Foreign Country
001	Alabama
002	Alaska
004	Arizona
005	Arkansas
006	California
008	Colorado
009	Connecticut
010	Delaware
011	District of Columbia
012	Florida
013	Georgia
015	Hawaii
016	Idaho
017	Illinois
018	Indiana
019	Iowa
020	Kansas
021	Kentucky
022	Louisiana
023	Maine
024	Maryland

Codes for States and Foreign Countries (continued)

Code	State or Foreign Country
025	Massachusetts
026	Michigan
027	Minnesota
028	Mississippi
029	Missouri
030	Montana
031	Nebraska
032	Nevada
033	New Hampshire
034	New Jersey
035	New Mexico
036	New York
037	North Carolina
038	North Dakota
039	Ohio
040	Oklahoma
041	Oregon
042	Pennsylvania
044	Rhode Island
045	South Carolina
046	South Dakota
047	Tennessee
048	Texas
049	Utah
050	Vermont
051	Virginia
053	Washington
054	West Virginia
055	Wisconsin
056	Wyoming
060	American Samoa
093	Canada
061	Canal Zone
062	Canton and Enderbury Islands
091	Central America
095	Costa Rica
063	Cuba
064	Dominican Republic
065	El Salvador
062	Enderbury Islands
087	Germany
066	Guam
068	Guatemala
069	Haiti
088	Honduras
070	Jamaica
090	Japan
067	Johnston Atoll
080	Mexico
071	Midway Islands
081	Nicaragua
096	Palestine
097	Austria
098	Lebanon
099	Chile
100	Philippines

Codes for States and Foreign Countries (continued)

Code	State or Foreign Country
101	Brazil
102	Holland
103	Colombia
082	Panama
072	Puerto Rico
092	Saudi Arabia
083	Spain
094	Taiwan
089	Turkey
084	Uruguay
085	Venezuela
073	Ryukyu Islands, Southern
074	Swan Islands
075	Trust Territories of the Pacific Islands (includes Caroline, Mariana and Marshall Island groups)
076	U. S. miscellaneous Caribbean Islands (includes Navassa Islands, Quito Sueno Bank, Roncador Cay, Serrana Bank and Serranilla Bank)
077	U. S. miscellaneous Pacific Islands (includes Kingman Reef, Howland, Baker & Jarvis Islands, and Palmyra Atoll)
086	United States
078	Virgin Islands
079	Wake Island
104	Azores
105	Peru
106	England
107	Vietnam
108	Italy
109	Ecuador
110	North America
111	Surinam
112	Argentina
113	Portugal
114	Trinidad
115	Egypt
116	Sudan
117	British Honduras
118	China
888	Blank but applicable

8. National origin recode

In the HHANES, if any household member was identified as "Hispanic" (as defined below), all household members, regardless of origin, were eligible to be selected as sample persons. The national origin recode specifies whether a sample person is considered to be "Hispanic" or "not Hispanic" for purposes of analysis. "Hispanic" is defined as:

Mexican-American, residing in selected counties of Texas, Colorado  
New Mexico, Arizona, and California;  
Cuban-American, residing in Dade County (Miami), Florida; or  
Puerto Rican residing in the New York City area, including parts of  
New Jersey and Connecticut.

The recode was assigned as follows:

A. Southwest portion

- 1) If the original national origin or ancestry code on the Household Screener Questionnaire was 1, 2, 3, 8, 10, or 11, then National origin recode = 1;
- 2) If national origin or ancestry was 4, 5, 6, 7, 9, or 0 but the person specified Mexican/Mexicano, Chicano, or Mexican-American self-identification on the Adult Sample Person Questionnaire (question M10), or the person was the biological child of a household member with Recode equal to 1 (as determined by questions A-1/A-11 on the Family Questionnaire), then National origin recode = 1;
- 3) In all other cases, National origin recode = 2.

B. Dade County, Florida portion

- 1) If the original national origin or ancestry code was 6 or 7, then National origin recode = 1;
- 2) In all other cases, National origin recode = 2;

C. New York City area portion

- 1) If the original national origin or ancestry code was 4 or 5, then National origin recode = 1;
- 2) If national origin or ancestry was 1, 2, 3, 6, 7, 8, 9, or 0 but the person specified Boricuan or Puerto Rican self-identification on the Adult Sample Person Questionnaire (question M10), or the person was the biological child of a household member with Recode equal to 1 (as determined by questions A-1/A-11 on the Family Questionnaire), then National origin recode = 1;
- 3) In all other cases, National origin recode = 2;

The national origin recode may be used in analysis in one of two ways:

- a. Selecting on Recode = 1 will restrict analysis to "Hispanics" only. In this case, in the Southwest portion of the survey, the weighted estimates by age and sex will approximately equal U.S. Bureau of Census population estimates of the number of Mexican Americans and a small proportion of other Hispanics assumed to be Hispano in the five Southwest States (Arizona, California, Colorado, New Mexico, and Texas) at the midpoint of the Mexican-American portion of HHANES - March 1983. The weighted estimates of Cuban Americans represents an independent estimate of the number of Cuban Americans in Dade County at the midpoint, February 1984. The weighted estimates of Puerto Ricans represents an independent estimate of the number of Puerto Ricans in the sample counties in New York, New Jersey, and Connecticut at the midpoint of the Puerto Rican portion - September 1984.

- b. Using Recode greater than 0, that is, all sample persons, will include "Hispanic" and "not Hispanic" persons and the Southwest weighted estimates by age and sex will overestimate the U.S. Bureau of the Census population estimates of Mexican Americans and other Hispanics by about 4.5 percent. In Dade County, using recode greater than 0 will increase the weighted estimates by about 5.3 percent over that for Cuban Americans only, using recode greater than 0 for the New York area will increase the weighted estimates by about 9.2 percent over that for Puerto Ricans only.

#### 9. Industry and Occupation Code

Family Questionnaire questions B-12 through B-15 (see page 117 or 139 of Ref. No. 1 in Section C) identified sample persons 17 years old or older who were in the labor force working for pay at a job or business or who worked without pay in a family business or farm operated by a related member of the household without receiving wages or salary for work performed.

Questions B-17 through B-22 provided a full description of sample persons' current or most recent job or business. The detail asked for in these questions was necessary to properly and accurately code each occupation and industry. Interviewers were trained to define a job as a definite arrangement for regular work for pay every week or every month. This included arrangements for either regular part-time or regular full-time work. If a sample person was absent from his or her regular job, worked at more than one job, was on layoff from a job or was looking for work during the two week reference period, interviewers were trained to use the following criteria to determine the job described:

- a. If a sample person worked at more than one job during the two week reference period or operated a farm or business and also worked for someone else, the job at which he or she worked the most hours was described. If the sample person worked the same number of hours at all jobs, the job at which he or she had been employed the longest was entered. If the sample person was employed at all jobs the same length of time, the job the sample person considered the main job was entered.
- b. If a sample person was absent from his or her regular job all of the two week reference period, but worked temporarily at another job, the job at which the sample person actually worked was described, not the job from which he or she was absent.
- c. If a sample person had a job but did not work at all during the two week reference period, the job he or she held was described.
- d. If a sample person was on layoff during the two week reference period, the job from which he or she was laid off, regardless of whether a full-time or part-time job, was described.
- e. If a sample person was looking for work or waiting to begin a new job within 30 days of the interview, the last full-time civilian job which lasted two consecutive weeks or more was described.

The 1980 census of population Alphabetical Index of Industries and Occupations was used in the coding of both industry and occupation. This book has Library of Congress Number 80-18360, and is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for \$3.00. Its Stock Number is 003024049-2.

#### 10. Health Insurance

- a. In the Health Insurance section of the Family Questionnaire, up to three separate health insurance plans could be reported for a family. Each sample person could have been covered by any combination of the three, or by none at all. In order to simplify the health insurance coverage data, the information on all reported plans was combined to a single variable for each sample person, i.e., whether or not the person is covered by any plan (position 74). For all persons covered by at least one plan, information on the type of coverage is then indicated: position 75 specifies whether any of the sample person's plans pays hospital expenses and position 76 specifies whether any of the sample person's plans pays doctor's or surgeon's bills.
- b. For all sample persons who were not covered by Medicare or any health insurance plan, the reasons for not being covered were ascertained. Positions 77-78 contain the main or only reason reported. For persons with one or more additional reasons, the first (lowest) code entered on the questionnaire was coded in positions 79-80.

#### 11. Per Capita Income

Per capita income was computed by dividing the total combined family income by the number of people in the family.

#### 12. Poverty Index

The poverty index is a ratio of two components. The numerator is the midpoint of the income bracket reported for each family in the Family Questionnaire (E-11). Respondents were asked to report total combined family income during the 12 months preceding the interview. The denominator is a poverty threshold which varied with the number of persons in the family, the adult/child composition of the family, the age of the reference person, and the month and the year in which the family was interviewed.

(Note 12 continues on next page)

Poverty thresholds published in Bureau of the Census reports\* are based on calendar years and were adjusted to reflect differences caused by inflation between calendar years and 12 month income reference periods to which question E-11 referred. Average Consumer Price Indexes for all Urban consumers (CPI-U) for the calendar year for which the poverty thresholds were published (see table below) and for the 12 months representing the income reference period for the respondent were calculated. The percentage difference between these two numbers represents the inflation between these two periods and was applied to the poverty threshold appropriate for the family (based on the characteristics listed above). For example, for a family interviewed in November, 1983, the 1982 poverty threshold was updated to reflect inflation by multiplying by the percent change in the average CPI-U for the 12 month reference period, which would have been November, 1982 through October, 1983, over the calendar year January through December, 1982, in this example. To compute poverty indexes, the midpoint of the total combined family income bracket was divided by the updated poverty threshold.

Average Consumer Price Index, all Urban consumers (CPI-U),  
U. S. city average, 1981-84

Month	Year			
	1981	1982	1983	1984
January	260.5	282.5	293.1	305.2
February	263.2	283.4	293.2	306.6
March	265.1	283.1	293.4	307.3
April	266.8	284.3	295.5	308.8
May	269.0	287.1	297.1	309.7
June	271.3	290.6	298.1	310.7
July	274.4	292.2	299.3	311.7
August	276.5	292.8	300.3	313.0
September	279.3	293.3	301.8	
October	279.9	294.1	302.6	
November	280.7	293.6	303.1	
December	281.5	292.4	303.5	
Average	272.4	289.1	298.4	

Source: U.S. Department of Labor, Bureau of Labor  
Statistics

\* U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 138, "Characteristics of the Population Below the Poverty Level: 1981", U.S. Government Printing Office, Washington, D.C., March 1983.

U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 144, "Characteristics of the Population Below the Poverty Level: 1982", U.S. Government Printing Office, Washington, D.C., March 1984.

Members of families with incomes equal to or greater than poverty thresholds have poverty indexes equal to or greater than 1.0 and can be described as "at or above poverty"; those with incomes less than the poverty threshold have indexes less than 1.0 and can be described as "below poverty".

Poverty thresholds used were computed on a national basis only. No attempt was made to adjust these thresholds for regional, State, or other variations in the cost of living. None of the noncash public welfare benefits such as food stamp bonuses were included in the income of the low income families receiving these benefits.

### 13. Size of Place and SMSA

Codes for size of place and SMSA were obtained from Bureau of Census summary tape files (STF1B).

A place is a concentration of population. Most places are incorporated as cities, towns, villages or boroughs, but others are defined by the Bureau of the Census around definite residential nuclei with dense, city-type street patterns, with, ideally, at least 1,000 persons per square mile. The boundaries of Census defined places may not coincide with civil divisions.

A Standard Metropolitan Statistical Area (SMSA) is a large population nucleus and nearby communities which have a high degree of economic and social integration with that nucleus. Generally, an SMSA includes one or more central cities, all urbanized areas around the city or cities, and the remainder of the county or counties in which the urbanized areas are located. SMSAs are designated by the Office of Management and Budget.

The same place size and SMSA codes were assigned to all persons in the same segment (for the definition of segments see Ref. No. 1 in Section C). In a few cases segments were divided by place boundaries. In these cases codes were assigned after inspecting segment maps. If the segment was predominantly in one place, then the place code for that place was used. If the segment was approximately evenly divided, the code for the larger place was used.

### 14. Home Heating

Questions E-3 through E-6, pertaining to the main fuel and equipment used for heating the home, appear to have codes which are inconsistent. It has been verified that these are the codes that were recorded on the original document; that is, codes that appear inconsistent were not incorrectly keyed.

### 15. Ear Infection/Earache/Discharge

D-14, D-19: For a few individuals, a report was given of having a history of a running ear or any discharge from ears but no report was given of having had an ear infection or an earache. No changes were made to correct this inconsistency.



#### 16. Disagreements Due to Use of Different Respondents

Disagreements between similar questions asked of the different respondents, although expected, were looked up on microfilm and verified but no changes were made to the records. See Note 20 of Child History Questionnaire documentation for more details.

#### 17. Trouble Hearing

D-26, D-28: For a few individuals, a report was given that the sample person was still having trouble hearing with one or both ears but their present hearing was described as good. No changes were made to correct this inconsistency.

#### 18. Eardrum

The blank code has one of two meanings:

1. the respondent did not undergo a physical exam and consequently all fields are blank; or
2. the eardrum was adequately visualized.

#### 19. Blank Records

Not all sample persons who came to the mobile examination center to participate in the examination phase of the survey were given audiometric examinations. Reasons for noninclusion in the examination included insufficient time for the examination, mechanical problems, child crying or misbehaving, and sample person having to leave. This data field contains code = '1' for those persons who did not have an examination, and code = '2' for those who were given an examination.

#### 20. Attenuator Pads

Most puretone audiometric tests were performed with 30 dB attenuator pads in the audiometric circuitry for both ears, and therefore the hearing levels recorded on this tape have been reduced by 30 dB to "real sound" levels. Retesting was done with the attenuator pads out for examinees with a hearing threshold level of at least 70 dB "real sound." For these people the 70 dB real sound with pad out is equivalent to the 100 dB pad in reading. See appendix 2 regarding audiometric testing procedures.

Department of Health and Human Services  
Public Health Service  
Office of Health Research, Statistics, and Technology  
National Center for Health Statistics

**AUDIOMETRY (AIR) (502)  
(AGES 6 - 74 YEARS)**

**HISPANIC HEALTH AND NUTRITION EXAMINATION SURVEY**

NOTICE — Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m).

a. Age -- -- Yrs.	b. Sex <input type="checkbox"/> M <input type="checkbox"/> F	c. Audiometer No. (102) -- -- -- --	d. Examiner No. (103) -- -- --
----------------------	--	--	-----------------------------------

START HERE IF SAMPLE NUMBER EVEN.  
1. AIR CONDUCTION - RIGHT EAR

START HERE IF SAMPLE NUMBER ODD  
2. AIR CONDUCTION - LEFT EAR

Retest R with masking on L* (a)	Frequency (Hz) (b)	Hearing level (c)	Retest L with masking on R* (a)	Frequency (Hz) (b)	Hearing level (c)
(105)	1000	(106)	(124)	1000	(125)
(107)	2000	(108)	(126)	2000	(127)
(109)	4000	(110)	(128)	4000	(129)
(111)	500	(112)	(130)	500	(131)
(113)	1000	(114)	(132)	1000	(133)

3. Condition Affecting Test Results  
Mark all that apply

(115)  None

(116)  Cold or sinusitis now

(117)  Ear discharge

(118)  Ringing or other noises in ear

(119)  Equipment defect

(120)  Cold or sinusitis within one week

(121)  Earache within one week

(122)  Hearing aid worn

(123)  Pads out

(124)  Other-Describe 2 \_\_\_\_\_

4. Condition Affecting Test Results  
Mark all that apply

(134)  None

(135)  Cold or sinusitis now

(136)  Ear discharge

(137)  Ringing or other noises in ear

(138)  Equipment defect

(139)  Cold or sinusitis within one week

(140)  Earache within one week

(141)  Hearing aid worn

(142)  Pads out

(143)  Other-Describe 2 \_\_\_\_\_

\*Retest poorer ear with A/C masking on better ear only if differences in A/C-HL between the two ears is 40 dB or more

## APPENDIX 2

### Audiometric Equipment and Procedures

Excerpted from Instruction Manual Part 15a, Examination Staff  
Procedures Manual for the Hispanic Health and Nutrition Examination Survey  
1982-84. Hyattsville, Maryland, 1985

## AUDIOMETRY

### Equipment and Supplies

- Soundproof room
- Two Beltone audiometers, Model 200-C
- B&K sound level meter, Model 2203
- B&K artificial ear coupler, Model 4151
- B&K condenser microphone, Model 4144 (1")
- B&K octave band filter, Model 1613
- B&K acoustic calibrator, Model 4230
- 500-gram weight
- Daily check list
- Field calibration forms
- Environmental noise survey form

### Introduction

Puretone audiometric testing is done on all examinees from six to nineteen years old. The testing is also done on a half-sample of examinees between 20 and 74 years old, those with sample numbers in the 500-799 series.

### Daily Field Checks

1. Preliminary procedure
  - a. Turn the power on and switch to the manual mode.
  - b. Turn the tone switch to the "on" position to turn on the tone indicator light.
  - c. Place all switches and controls in their "off" positions.
  - d. Turn the "talk back" and "talk over" controls fully counterclockwise.
2. Tone quality
  - a. Set the hearing level dial at 70 dB, pads in.
  - b. Turn the Channel I output control alternatively to the left and right phones.
  - c. Turn the frequency dial successively from 500 Hz through 4000 Hz while listening through each earphone in turn for purity of tones.

- d. Check the appropriate spaces on the form and note any abnormalities.
3. Masking tone quality
    - a. Turn the Channel I tone switch to "off" and the Channel II tone switch to "on."
    - b. Be sure the Channel II input dial is set at "NB Noise" and the accompanying masking level attenuator dial is set at 60 dB.
    - c. Set the Channel I frequency control at 500 Hz.
    - d. While listening through each earphone, turn the Channel II output control alternately from the left to the right earphones.
    - e. Change the Channel I frequency dial successively from 500 Hz to 4000 Hz.
    - f. Check the appropriate spaces on the form and note any abnormalities found.
  4. Hearing level control
    - a. Set the frequency dial on 2000 Hz.
    - b. Turn the hearing level dial slowly from 20 dB to 60 dB and back to zero while listening for scratches, abrupt changes in loudness of tone, or other extraneous signals.
    - c. Check the appropriate spaces on the form as each phone is checked and note any abnormal conditions in the "Remarks" section.
  5. Wires leading to the earphones
    - a. While wearing the earphones with the 1000 Hz tone on at 40 dB, shake the wire to each earphone gently; and listen for scratches, interruption of the tone, or any other abnormality.
    - b. If the tone is interrupted or changes loudness, tighten the set screws holding the earphone cord in the earphone. Also, tighten and clean the connector jack at the back of the audiometer with a rubber eraser. If these actions do not correct the fault, replace the audiometer.
    - c. If it is necessary to replace an earphone cord, as it is from time to time, loosen the set screws in the earphone, unplug the old earphone cord, plug in the new cord, and finally tighten up the set screws.

6. Attenuator and frequency dials

If the attenuator and frequency dials slip on the shaft, report it under "Remarks" and replace the audiometer.

7. Consequences of field check failure

Send any defective unit to EAR-CO for service. If neither audiometer works properly, contact the engineer at headquarters, then Mr. Kenneth Stewart for instruction.

## Field Calibration

### I. General

- a. Do a field calibration of both audiometers at the beginning and the end of each stand. Also calibrate the audiometer in use weekly. The field calibration report forms give the expected reading at each frequency and the tolerance limits allowed around that reading. The expected readings were determined for each set of field calibration equipment at EAR-CO's laboratory. If a microphone requires replacement, send the calibration equipment back to EAR-CO for a determination of new expected readings for the new microphone.
- b. Make reports on these field calibrations in duplicate. Mail one copy that day to the biomedical engineer at headquarters and the other to EAR-CO, 523 Washington Avenue, Bridgeville, Pennsylvania 15017. Save the originals until the end of the stand and then send them to the engineer at headquarters.
- c. If the calibration shows a unit to exceed the specified limits, have another technician make an independent calibration. If both technicians agree that the audiometer is in calibration, consider the unit satisfactory for use. If the difficulty cannot be resolved, send the little unit to EAR-CO for service.

### 2. Puretone Calibration

- a. Preparation of the sound level meter
  - (1) Turn the function selector to "Batt" and pull up on it to turn on the meter. The sound level needle should be deflected into the range marked "Battery" on the meter to indicate that the B&K has proper power to make accurate calibration readings. If the needle does not indicate an appropriate meter reading, replace the batteries. To do so, unscrew the four screws at the bottom of the B&K filter unit. Remove the straight bar

on the top side of the unit by pulling it up. By removing this bar you can separate the filter and meter sections. The three 1.5-volt batteries are located at the bottom of the meter section.

- (2) Screw the artificial ear coupler onto the meter case with the cable provided.
  - (3) Unscrew the top half of the coupler.
  - (4) Screw the microphone cartridge (one inch in diameter) with the protective grid onto the bottom half of the coupler.
  - (5) Turn the black knob above the meter to position the number "90" opposite the marker on the meter case. Turn the clear knob to place the red circle over 90.
  - (6) Set the function selector to "A-Slow" and pull it up to turn on the meter.
  - (7) Remove the half-inch adaptor from the acoustic calibrator and set the calibrator firmly over the microphone.
  - (8) Press the tone actuator (on the side of the calibrator) once and release it. The sound level meter should read 94 dB on the A scale. If not, use a screw driver (supplied with the meter) to turn the adjustment (Adj.) screw to produce the desired reading. (If the tone has disappeared, reactivate the calibrator.) The sound level meter is now in calibration.
- b. Mounting of the earphone
- (1) Screw the top of the coupler back on.
  - (2) Set the earphone to be tested over the cavity of the coupler, making sure that the earphone rests squarely on the coupler.
  - (3) Place the 500-gram weight on top of the earphone.
- c. Calibration procedure
- (1) Pads out
    - (a) Turn the black knob on the sound level meter until the number 80 on the dial is opposite the marker on the meter case, and keep the red circle over 80.
    - (b) Select the earphone to be tested.
    - (c) Set the audiometer at a frequency of 500 Hz and a hearing level of 70 dB. The Channel I output control should indicate the earphone being tested.

- (d) Turn the tone switch to "on".
- (e) Record the sound level meter reading (external filter) on the report form. Be sure that the weighting switch on the external filter is in the "off" position. Determine the meter reading as in the following example:

Red circle over	80.0
Meter needle at	<u>4.5</u>
Meter reading is	84.5

Since the expected reading at this frequency is 83.0 dB with a tolerance of plus or minus 3 dB, the audiometer is within calibration at this frequency.

- (f) Continue testing at the other three frequencies indicated on the report form. In each case the report form provides the appropriate settings for the sound level meter and external filter knob.
- (g) To test the other earphone, remove the weight and lift the earphone already tested off the coupler. Place the other phone on the coupler and put the weight back on. Repeat steps (c) through (f).

(2). Pads In

- (a) Turn the black knob and red circle on the sound level meter attenuator to "100."
- (b) Set the sound level meter function knob to "external filter" and the filter knob to "500 Hz."
- (c) Set the audiometer frequency to "500 Hz" and select the earphone to be tested.
- (d) Turn the tone switch to the "on" position.
- (e) Adjust the hearing level dial to bring the sound level meter needle to the number "4" at the center of the B&K meter. The reading is now 104, pad out.
- (f) Unplug the earphone from the audiometer, plug it into the pad, and plug the pad into the audiometer.
- (g) Rotate the sound level meter's black attenuator knob to "70." Leave the red circle over 70.
- (h) Observe and record the sound level meter reading. The reading obtained (about 74) is the pad in reading.

- (i) Repeat steps (a) through (h) exactly in the order given above for each frequency. Any deviation in the sequence will result in an invalid calibration.
- (j) Write the difference between readings (pad out minus pad in) for each frequency on the forms provided.
- (k) To test the other earphone and pad, remove the weight and lift the earphone already tested off the coupler. Place the other phone and weight back on. Repeat steps (a) through (j) using the other pad. The absolute value (the number without the plus or minus sign) of the difference should be within the range indicated on the pad in form for the pad being used. For example, the range for the right ear using pad R102 is 0.5 dB plus or minus 3 dB. If the difference does not fall within the range for any one of the four frequencies with a given earphone (right/left), notify the chief technician, then the supervisory technician or engineer at headquarters, and finally EAR-CO.

### 3. Masking noise calibration

- a. Set up the field calibration equipment as before.
- b. Set the function selector on the B&K meter to "C-Slow."
- c. Turn the audiometer Channel II tone switch "on" to bring the tone indicator light on. Turn the Channel I tone switch "off".
- d. Turn the frequency and input dials to "NB Noise" and the Channel I frequency selector to "500 Hz."
- e. Set the masking level knob at "60 dB" as indicated on the form.
- f. Select the earphone to be tested. The Channel II output control should indicate the earphone being tested.
- g. Set the black knob and red circle on the sound level meter at "80" and obtain the reading. Determine the actual masking signal level at the selected range of frequencies as in the following example:

Red circle over	80.0
Meter needle at	<u>2.4</u>
Masking signal level is	82.4 dB

Since the expected reading is 81.7 dB with a tolerance of plus or minus 3 dB, the level of the masking noise is within the specifications for this frequency range.



- h. Repeat the procedure with the Channel I frequency selector at the other frequencies and other attenuator settings indicated on the form.

## Environmental Noise Survey

### 1. General

A noise survey is to be done during the setup day before the start of each stand. Send one copy of the completed form immediately to the biomedical engineer at headquarters and one to EAR-CO. Steps 2g through 2n below should first be done with the trailer's air conditioning/heating unit off then done again right away with the air conditioning/heating unit on.

### 2. Procedure

- a. Screw the one-inch microphone (with the protective grid in place) directly onto the connector on the B&K sound level meter.
- b. Check the battery condition and calibration according to the previous instructions.
- c. Set the selector knob to the "external filter slow" position.
- d. Set the weighting switch on the octave filter at "off".
- e. Close both doors to the audiometry room.
- f. Turn off all hearing test equipment.
- g. Set the black knob to "70."
- h. Rotate the frequency knob to "31.5."
- i. Adjust the red circle knob to obtain a meter reading which is somewhat above 0 dB on the meter scale. Read the red circle number and add to it the meter reading as in the following example:

Red circle on	60 dB
Meter reading	<u>4 dB</u>
Environmental noise level	64 dB at 31.5 Hz

- j. Record the reading on the correct form. The meter reading will fluctuate a bit. Try to estimate an average reading after having observed the meter for a moment.
- k. Turn the frequency knob to "63."
- l. Turn the red circle knob to obtain a meter reading as you did while following instruction 2i above.

- m. Proceed through each octave band from 125 Hz through 8000 Hz.
- n. Under "Comments" explain the circumstances, if possible, where the environmental noise levels exceed ANSI allowable levels.

## Audiometric Testing Procedures

### 1. Preliminary procedure

At the beginning of each examination session turn on the audiometer at least ten minutes before doing the daily field check. Both doors to the audiometry room should be closed while testing.

### 2. Recording

- a. Enter the beginning time and technician number on the control record.
- b. Use the left side of the audiometry form first when the sample number is even and the right side first when the sample number is odd.
- c. Enter the age and sex of the examinee, the audiometer number, and the technician number on the audio form.
- d. Indicate which ear will be tested first by circling "right ear" or "left ear" on the form. This will compensate for any bias that would result if we always tested the same ear first.

### 3. General instructions

- a. Perform puretone audiometric tests with attenuator pads in for both ears in the sequence indicated on the recording form.
- b. If any part of the test cannot be completed, enter "X" in the appropriate space and indicate the reason under "Condition Affecting Test Results." If other than physical conditions of the examinee have affected any of the audiometric results, explain in the space provided at the right of this section. If any thresholds of 30 dB or greater (without attenuation) are obtained, be sure to question the examinee about physical conditions which might contribute to the results and check the appropriate box or boxes under "Condition Affecting Test Results." If you find a 15- to 19-year-old with a 40-dB or greater threshold (without attenuation) at 4000 Hz in one or both ears, ask him if he has listened to a large amount of amplified music. Please note under "Other". If the examinee does not respond to 100 dB at any test frequency, record "100+" in the appropriate space.

4. Testing with the attenuator pads out
  - a. If you find an examinee with a hearing level of 100 dB or above at any frequency when tested with the attenuator pads in, finish testing that ear, then retest that ear at all frequencies with pads out.
  - b. Circle any entries already made on the audio form for results of testing with pads in, and write in the new results of testing with pads out.
  - c. Check the "Pads out" box under "Condition Affecting Test Results" at the bottom of the form.
5. Instructions to the examinee
  - a. Points that should be stressed in detail to the examinee
    - (1) Tell the examinee that once the earphones are placed by the technician, the examinee must not touch them. The technician should ask if they are comfortable and readjust them if necessary.
    - (2) Tell the examinee that he will hear tones that are high and low and that will become softer and softer until he will have difficulty hearing them. When he hears a tone, he should depress the response button and release it when the tone is no longer heard. Remind him to concentrate very hard when the tones are soft.
    - (3) Have the examinee remove eye glasses, earrings, chewing gum, wigs, and hair ornaments if they interfere with proper placement of the headset.
  - b. Example of verbal instructions for examinees from 7 to 74 years old

We are going to see how well you hear some tones from these earphones. You will hear short tones that are both high and low. They will become softer and softer. Each time you hear a tone, please press this button (technician demonstrates with response button) and when you no longer hear the tone let the button up. Listen carefully when the tone starts to get softer but even if you think you hear it, press the button and I will be able to tell if you hear it. First you will hear the tones in your right/left ear (point) and then in your other ear. If the tone seems to be in this ear (point to nontest ear), please tell me. Remember to press the button when you hear a tone and let it up when you no longer hear it. Do you have any questions? (If so, clarify as necessary.)

- c. Example of verbal instructions for 6 year olds and immature older children

(Bring the child into position to face the audiometer. With a 50 dB, 1000 Hz tone in one phone, hold it to the child's ear.) We are going to see how well you can hear some tones from these earphones. Listen to this one. Every time I play a tone, the red light goes on. Do you see it? (Demonstrate) If you listen carefully and hear the tone, you can turn it off by pressing this button and making the white light go on. (Indicate by depressing response button.) (Hand the response button to the examinee and present the tone, encouraging the child to press the response button. When he does, release the stimulus tone. Repeat the sequence at least once or until you feel that the child understands his task. Reinforce the child's performance with a positive comment.) Good. Now we will play this game while you sit in that chair. (Indicate the chair and hand the child the response button.) (Place the headset on the child.) First you will hear the tones in this ear (indicate right or left) and then you will hear them in your other ear. Are you ready?

- d. Examples of verbal instructions when masking of the better ear is required (when the difference between the hearing levels of the two ears is 40 dB or greater at any frequency)

Now you will hear the tone in your right/left ear (point). At the same time you will hear a noise, like wind, in your other ear (point). The noise is to keep you from hearing the tone in that ear so don't pay any attention to it. I want you to listen for the tones in your right/left ear (point) and press the button whenever you hear them. Do you understand? (If not, clarify as necessary.)

6. Specific procedure for hearing test

- a. Take the examinee into the test room and seat him opposite you but facing away so that he cannot see you or the equipment being operated.
- b. Close the test room doors.
- c. Ask the examinee if he has any problems which might affect his hearing such as colds or earaches, or anything like that. Record these under "Condition Affecting Test Results."
- d. Repeat the instructions briefly.
- e. Before placing the earphones, make sure the ears are not obstructed with cotton.

- f. Place the earphones on the examinee and make sure that each earphone is over the ear canal and that it has a good seal against the examinee's ear. The red earphone is placed on the right ear; blue on the left. Hair should be pushed away from the ears before the headset is placed.
- g. Make sure that the audiometer is ready for the test by checking that it is set as follows:

Channel I

<u>Machine Dial</u>	<u>Correct Setting</u>
Channel I Monitor	Off (unless using)
Channel I Output	Right/Left
On/Off Toggle Switch	Off
Auto/Manual Toggle Switch	Manual
Frequency	1000 Hz
Decibels	70 dB <sup>1</sup>

Channel II

<u>Machine Dial</u>	<u>Correct Setting</u>
Channel II Monitor	Off unless using
Channel II Output	Off <sup>2</sup>
On/Off Toggle Switch	Off <sup>2</sup>
Auto/Manual Toggle Switch	Manual
Frequency and Input	NB Noise
Decibels	90 dB <sup>1</sup>

<sup>1</sup>When pads are out, the decibels should be set at "40" for Channel I and "60" for Channel II.

<sup>2</sup>When masking is required, the Channel II Output should be set at Right/Left and the On/Off Toggle Switch should be set at "On".

**NOTE:** DIALS SISI and Speech-Input have nothing to do with either Air Conduction or Masking testing.

- h. Introduce the 1000-Hz tone to the first ear to be tested at a level of 70 dB for about one second. This should be well within the range of audibility for most examinees and will serve as listening practice. If the tone is not heard at 70 dB, increase the level in 10-dB steps until he responds to it.
- i. When the examinee responds, set the intensity dial 10 dB below the previous stimulus intensity (60 dB) and present the tone for one or two seconds.
- j. Decrease the level of the tone in 10-dB steps with at least one presentation per level until no response is obtained.

- k. Then increase the intensity dial by 5 dB and present a stimulus.
  - l. If a response is obtained at this level, reduce the intensity by 10 dB. If no response is obtained, increase the intensity by 5 dB. Always descend by 10-dB increments and count the number of responses at the lowest level while ascending in intensity in 5-dB steps.
  - m. Record as the threshold the lowest dial reading at which more than half of the responses are obtained to ascending presentations, that is, two out of three or three out of five trials. Below this level, less than 50 percent response is obtained and above this level, 100 percent response is approached.
  - n. Enter the correct two-digit entry on the test form.
  - o. Repeat the procedure presenting each successive frequency in the order listed on the examination form to the test ear, and then shift to the other ear as indicated on the test form until the puretone test has been completed for all frequencies in both ears.
7. Masking procedure to be used when the difference in thresholds between the two ears is 40 dB or greater at the same frequency.

At any frequency, when the threshold of one ear is poorer than the other ear by 40 dB or more, retest the poorer ear while using a masking noise in the better ear.

- a. When this difference of at least 40 dB is found while testing with pads in, use a masking level of 90 dB, pads in, regardless of the difference in thresholds between the two ears. Record these results in the appropriate spaces on the audiometry form.
  - b. When this difference of at least 40 dB is found while testing with pads out, use a masking level of 60 dB, pads out, regardless of the difference in thresholds between the two ears. Record these results in the appropriate spaces on the audiometry form.
8. Procedure necessary for threshold accuracy
- a. Avoid rhythmic presentation of signals to the examinee. The examinee may respond to the rhythm rather than to the sound. This is especially true of younger persons.
  - b. Avoid the long, drawn-out search for a threshold that tends to lessen the interest and cooperation of the person being tested and to produce fatigue. If necessary, test at another frequency, then return to the problem frequency later. Note at the bottom of the form any change in the order of the test.

- c. Avoid giving visual or auditory cues when the tone is presented, for example, looking at the person each time a tone is presented or making a click with the interrupter switch.
- d. Double check the dial readings.
- e. Check whether or not the interrupter switch was in the "off" position.
- f. Avoid activity which will distract the examinee.
- g. Check the response of the examinee occasionally by leaving the tone off for several seconds and then presenting the tone to see if he is responding consistently.
- h. Avoid presentation of the test tone for longer than three seconds. This may lead to a false response.
- i. Count only the ascending responses in determining the threshold.
- j. Avoid being influenced by the threshold obtained for the first 1000 Hz tone when obtaining the threshold for the second presentation of this tone.
- k. Make sure all forms are complete. Record the time the test is finished on the control record. If the test is not done or incomplete, record the reason why on the audio form, the control record, and the audio roster.