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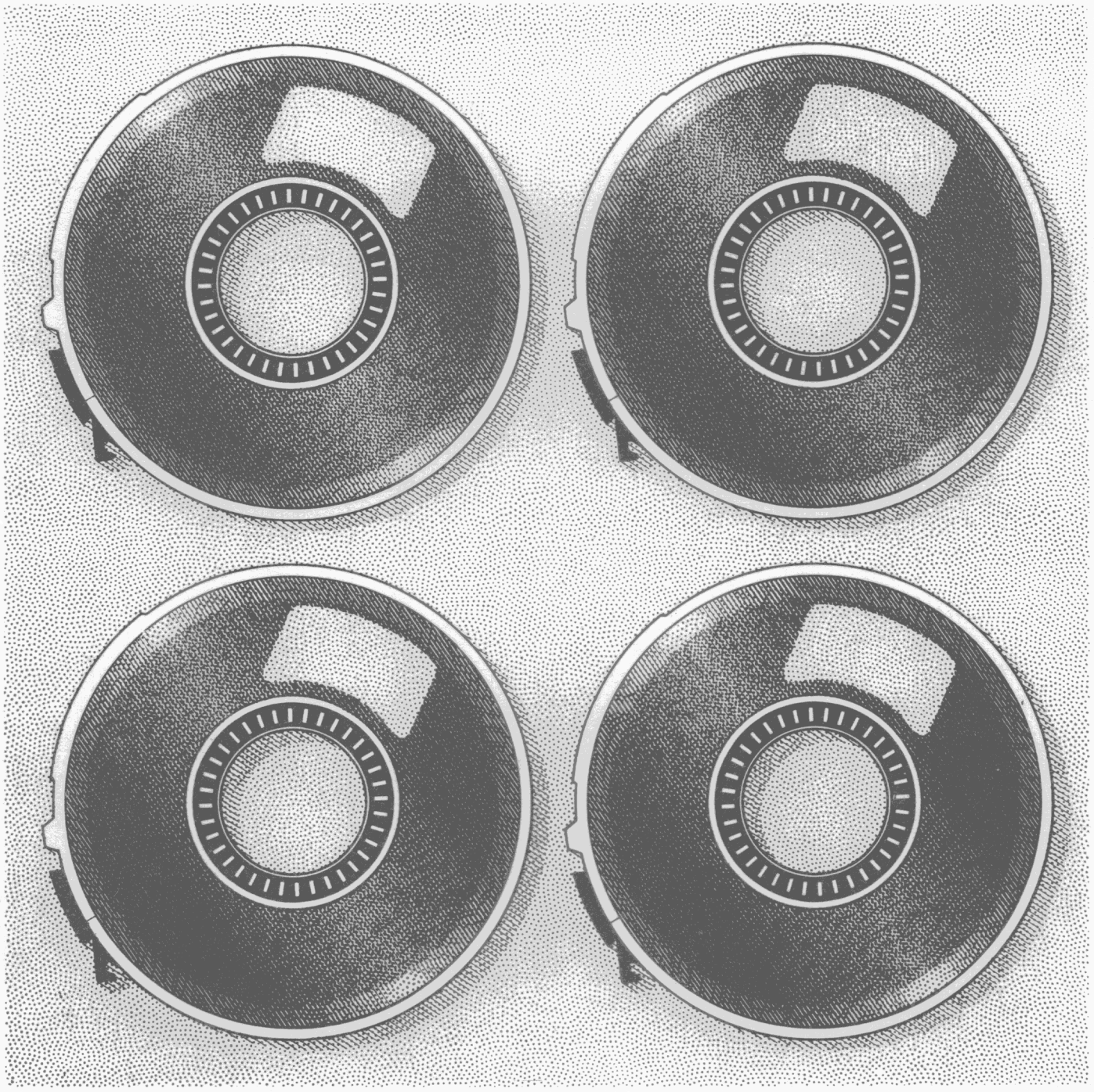
Public Use Data Tape Documentation

Computer Measurements and Interpretations of Electrocardiograms Ages 25-74 Tape Number 4140

National Health and Nutrition Examination Survey, 1971-75

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



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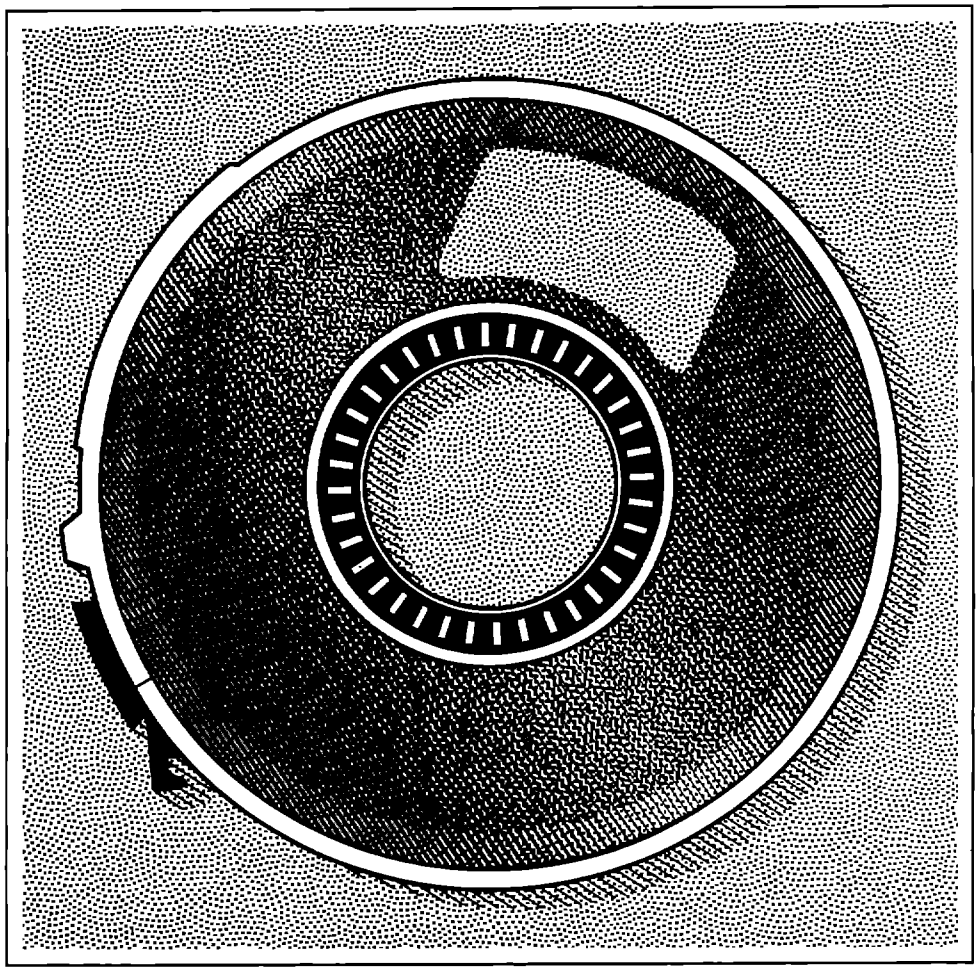

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Center for Health Statistics

Hyattsville, Maryland
October 1986

The data compilation and documentation necessary for the Computer Measurements and Interpretations of Electrocardiograms, Ages 25-74, were done by Jean Roberts, Wilbur Hadden, Everette Collins, Mary Dudley, Lillian O'Brien, Jack Varty, and Evelyn Stanton of the Division of Health Examination Statistics, National Center for Health Statistics. A special note of gratitude is due Evelyn Stanton who patiently typed this material.

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COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS, AGES 25-74

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

Description of Survey: A detailed description of the design, content and operation of HANES I is provided in the following reports: Plan and Operation of the Health and Nutrition Examination Survey, DHEW Pub. No. (HSM) 73-1310, Series 1, Nos. 10a and 10b, Public Health Service, Washington, D.C., U.S. Government Printing Office, February 1973 (extended through June 1974); and Plan and Operation of the HANES I Augmentation Survey of Adults 25-74 years describing the relevant field work conducted between July 1974 and October 1975, DHEW Pub. No. (PHS) 78-1314, Series 1, No. 14, Public Health Service, Hyattsville, Maryland, June 1978.

Target Population: HANES I was conducted on a nationwide probability sample of approximately 32,000 persons, ages 1-74 years, from the civilian, noninstitutionalized population of the coterminous United States, excepting those persons residing on Indian reservations. The survey started in April 1971 and for many survey components was completed in June 1974. The HANES I sample was selected so that certain population groups thought to be a high risk of malnutrition (persons with low incomes, preschool children, women of childbearing age and the elderly) were oversampled at known rates. Adjusted sampling weights were then computed within 60 age, sex and race categories in order to inflate the sample in such a manner as to be closely representative of the noninstitutionalized population, ages 1-74 years, of the United States at the mid-point of the survey.

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

While the nutrition and related health component part of the survey was completed in June 1974, the detailed examination given to the 25-74 age group was continued until the total number of examined adults was approximately double the number who received the detailed examination during the 1971-1974 period.

Data Collection: Information for all examined sample persons in HANES I was obtained by means of a household interview; a general medical history; a 24-hour dietary intake recall interview; a food frequency interview; a food program questionnaire; a general medical examination; dental, dermatological and ophthalmological examinations; anthropometric measurements; hand-wrist x-rays (of those ages 1-17 only) and 24 hematological, blood chemistry, and urological laboratory determinations.

In addition to the information on all examined persons obtained by means of the above questionnaires, procedures and measurements, the following data were gathered on the subsample of adults aged 25-74: a medical history supplement; supplementary questionnaires concerning arthritis, respiratory and cardiovascular conditions for those with symptoms of such conditions; a health care needs questionnaire, a general well-being questionnaire; an extended medical examination;

x-rays of the chest and hip sacroiliac and knee joints; audiometry; electrocardiography; goniometry; spirometry; pulmonary diffusion and tuberculin tests, along with additional laboratory determinations.

Use of HANES Data

With the goal of mutual benefit, NCHS requests the cooperation of recipients of data tapes in certain actions related to their use:

A. Any published material derived from the data should acknowledge the National Center for Health Statistics as the original source. It should also include a disclaimer which credits any analyses, interpretations, or conclusions reached to the author (recipient of the tape) and not to NCHS, which is responsible only for the initial data.

B. Consumers who wish to publish a technical description of the data will make a reasonable effort to insure that the description is not inconsistent with that published by NCHS. This does not mean, however, that NCHS will review such descriptions.

Errors in the Data Sets and Survey Differences

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

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

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

Variance Estimation

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

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

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

Recode Specifications for Strata-PSU Codes

First.--Create a file with only those records in the file for examination locations 1-35.*

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

Third.--Recode the remaining strata according to the chart below.

Fourth.--Repeat the process for examination locations 66-100.*

Old Strata # (tape positions 194-195)	New Strata #	New PSU #
01	01	001
02	01	002
03	03	001
06	03	002
04	04	001
05	04	002
11	11	001
12	11	002
14	14	001
21	14	002
15	15	001
16	15	002
17	17	001
20	17	002
18	18	001
19	18	002
22	22	001
25	22	002
23	23	001
24	23	002
26	26	001
27	26	002
28	28	001
29	28	002
30	30	001
35	30	002
31	31	001
32	31	002
33	33	001
34	33	002

*See detailed note for tape positions 158-193.

Tape Characteristics

Title: Computer Measurements and Interpretations of Electrocardiograms, Ages 25-74

Catalog Number: 4140

Data Set Name: HEHANESI.DU414001

Record Length: 1500

Blocksize: 3000

Number of Records: 6,913

Number of Reels: 1

Recording Mode: Fixed Block, EBCDIC

Channel: 9 track

Created by: Division of Health Examination Statistics
National Center for Health Statistics
Hyattsville, Maryland

Asterisks on the Tape Description: Some of the data items were obtaine. only for a particular subsample of HANES. Consequently, items on some f the tapes appear to have a great deal of missing data (coded as BLANK) due o nonresponse, but in fact the data are missing because the design of HAN S dictated that the item was to be obtained only for a particular subsamp e. (For further discussion of the various subsamples in HANES, the user sh uld see the detailed note for tape positions 158-193).

To alert the user to this fact, asterisks were put on the tape descript on. One asterisk would denote that the data item was obtained only on exami ees in Locations 1-65.

General Notes

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

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

Electrocardiogram Data Collection and Processing: The electrocardiograms were recorded on both paper strip charts and digital tape in the mobile examination units on Beckman Digicorders which produced the paper strip and performed a digital-to-analog conversion at the rate of 500 samples per second. The format of the recording was one ECG lead at a time so the technicians were able to view and evaluate the ECG leads as they were recorded and repeat any leads that were considered technically unsatisfactory because of noise, wandering base lines or poorly placed complexes. Where leads were repeated on the digital tapes the last record for each lead was used. And in the rare instances where an entire electrocardiogram was repeated, the last recording was the one used. This procedure produced one set of records for each sample person which composed a twelve-lead ECG, once the repetition had been eliminated.

During the period of planning and data collection for this HANES survey, the technology of recording and computer analysis of electrocardiograms chan ed rapidly. It was possible to take advantage of some of the improved computer measu ement program that had become available in the preparation of this tape. Ther was considerable trouble with the recording equipment in the field; the digi al tapes produced were at times of such poor quality as to be useless. For unately, with considerable effort, it was possible to reconstruct poorly recorde l leads or sections of leads, while the level of loss attributable to the equipm nt failure is substantial, it is also far below what it would otherwise have been. In all, 574 electrocardiograms are missing, 8.3 percent of the examined sample.

The Beckman Digicorder was also used to record spirograms for sample per ons in the survey. In the processing of the digital tapes the header records i which the sample person's identification number, age, sex, race, height and we ght were recorded were edited against the field log and the anthropometric m asures collected elsewhere in the survey examination. After editing and correc ing the header records the electrocardiograms and the spirograms were separa ed; the ECG's were edited to eliminate redundant records and tapes were prep red for measurement and interpretation.

For the electrocardiograms, measurement and interpretation was done under contract by Phone-A-Gram Systems, Inc., of San Francisco. The program that they used was substantially the program developed within the Public Health Service which was called ECAN; however, Phone-A-Gram Systems has continued to refine and improve the program. The measurements and interpretations reported on this data tape are those of the improved program. Any records for which this program failed to produce an interpretation have been deleted and counted with those lost for other reasons.

DEMOGRAPHIC DATA SUMMARY - HANES I

	Tape Positions
Sample sequence number	1
Size of place	10
SMSA-not SMSA	11
Type of living quarters	12
Land usage	13
If rural, asked - How many acres of land are included	14
If 10 acres or more asked - Sale of crops, etc. amount to $50 or more	15
If 10 acres or less asked - Sale of crops, etc. amount to $250 or more	16
Age - head of household	17
Sex - head of household	19
Highest grade attended - head of household	20
Race - head of household	22
Total number of persons in household	23
Total sample persons in household	25
Number of rooms in house	27
Is there piped water	28
If yes, is there hot and cold piped water	29
If yes to piped water - Does house have a sink with piped water	30
Does house have a range or cook stove	31
Does house have a refrigerator	32
Are kitchen facilities used by anyone not living in household	33
Total family income group	34

NOTE: The following income questions were asked only if "Total Family Income" was less than $7,000

During Past Year Did you or Any Members of Your Family Receive Money From:

Wages or salaries	36
If yes - How much altogether before deductions	37
Social Security or Railroad Retirement	41
If yes - How much altogether	42
Welfare payments or other public assistance	46
If yes - How much altogether	47
Unemployment or Workman's Compensation	51
If yes - How much altogether	52
Government employee pensions or private pensions	56
If yes - How much altogether	57

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS
DATA TAPE SUMMARY--HANES I

	Tape Position
Catalog Number--4140	201
Matrix	
P-Wave Amplitude	214
P-Wave Duration	262
Q-Wave Amplitude	310
Q-Wave Duration	358
R-Wave Amplitude	406
R-P Amplitude	454
R-Wave Duration	502
R-P Duration	550
S-Wave Amplitude	598
S-Wave Duration	646
T-Wave Amplitude	694
T-P Amplitude	742
T-Wave Duration (measured from peak of T-Wave)	790
T-P Duration	838
Q-S Amplitude	886
Q-S Duration	934
P-R Wave Duration	982
ST-1 (.08 seconds after QRS)	1030
ST-2 (.12 seconds after QRS)	1078
ST-3 (.16 seconds after QRS)	1126
ST-4 (ST-2 - ST-1)/(ST-3 - ST-2)	1174
QT (time from onset of QRS to end of T-Wave)	1222
Heart Rate	1270
Sequence Number of Complex Measured	1318
Lead Code	1366

	Tape Position
Axes	
P-Wave	1426
QRS	1430
T-Wave	1434
Mean Rate	1442
Noise Level	1445
Calibration	1448
Interpretation Code Number 1	1451
Interpretation Code Number 2	1455
Interpretation Code Number 3	1459
Interpretation Code Number 4	1463
Interpretation Code Number 5	1467
Interpretation Code Number 6	1471
Interpretation Code Number 7	1475
Interpretation Code Number 8	1479
Interpretation Code Number 9	1483

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

DETAILED PERSONS
LOCATIONS 1-100

DEMOGRAPHIC DATA TAPE

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
			DEMOGRAPHIC DATA		
	1-5	5	Sample Sequence Number		
	6-9	4	Catalog Number 4271	6913	
	10	1	Size of Place		Household Questionnaire See Detailed Notes
			1 - Urbanized area with 3,000,000 or more	1076	
			2 - Urbanized area with 1,000,000 to 2,999,999	824	
			3 - Urbanized area with 250,000 to 999,999	1091	
			4 - Urbanized area under 250,000	627	
			5 - Urban place 25,000 or more outside urbanized area	120	
			6 - Urban place 10,000 to 24,999 outside urbanized area	338	
			7 - Urban place 2,500 to 9,999 outside urbanized area	403	
			8 - Rural	2434	
	11	1	SMSA - Not SMSA		Household Questionnaire See Detailed Notes
			1 - In SMSA, in central city	2038	
			2 - In SMSA, not in central city	2175	
			4 - Not in SMSA	2700	
	12	1	Type of Living Quarters		Household Questionnaire
			1 - Housing Unit	6872	
			2 - Other unit	41	
	13	1	Land Usage		Household Questionnaire
			1 - All other	4535	
			2 - Rural	2378	
	14	1	If Rural, asked How Many Acres of Land Are Included?		Household Questionnaire
			1 - 10 or more acres	658	
			2 - Less than 10 acres	1720	
			9 - Not applicable	4535	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	15	1	If 10 acres or more, asked if Sale of Crops, Etc. Amount to $50 or more?		Household Questionnaire
			2 - Yes	402	
			4 - No	256	
			9 - Not applicable	6255	
	16	1	If 10 acres or less, asked if Sale of Crops, Etc. Amount to $250 or more?		Household Questionnaire
			3 - Yes	50	
			5 - No	1670	
			9 - Not applicable	5193	
			Age - Head of Household		
	17-18	2	19-89 as given	3852	
			00-Blank, but applicable	2	Household Questionnaire*
			Blank	3059	
	19	1	Sex - Head of Household		Household Questionnaire
			1 - Male	3217	*
			2 - Female	637	
			Blank	3059	
	20-21	2	Highest Grade Attended - Head of Household		
			10 - None	54	Household Questionnaire
			21 - 1st grade	18	*
			22 - 2nd grade	31	
			23 - 3rd grade	74	
			24 - 4th grade	82	
			25 - 5th grade	104	
			26 - 6th grade	156	
			27 - 7th grade	147	
			28 - 8th grade	557	
			31 - 9th grade	194	
			32 - 10th grade	261	
			33 - 11th grade	168	
			34 - 12th grade	1047	
			41 - First year of college	117	
			42 - Second year of college	204	
			43 - Third year of college	71	
			44 - Fourth year of college	216	
			45 - Graduate	234	
			88 - Blank, but applicable	119	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	22	1	Race - Head of Household		
			1 - White	3209	Household Questionnaire
			2 - Negro	612	See Detailed Notes
			3 - Other	33	*
			Blank	3059	
	23-24	2	Total Number of Persons in Household		
			01-16 - As given	6913	Household Questionnaire
	25-26	2	Total Sample Persons in Household		
			01-06 As given	6913	Household Questionnaire
			~~Number of Rooms in House~~		
	27	1	1-8 - As given	3678	
			9 - 9 or more	176	
			Blank	3059	Household Questionnaire
	28	1	Is there piped water?		*
			1 - Yes	3753	
			2 - No	101	Household Questionnaire
			Blank	3059	*
	29	1	If yes		
			Is there hot and cold piped water?		
			1 - Yes	3655	Household Questionnaire
			2 - No	100	*
			9 - Not applicable	99	
			Blank	3059	
	30	1	If yes to piped water -		
			Does House Have a Sink with Piped Water?		
			1 - Yes	3726	Household Questionnaire
			2 - No	29	*
			9 - Not applicable	99	
			Blank	3059	
	31	1	Does House Have a Range or Cook Stove?		
			1 - Yes	3815	
			2 - No	39	Household Questionnaire
			Blank	3059	*

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	32	1	Does House have a Refrigerator?		Household Questionnaire
			1 - Yes	3815	*
			2 - No	39	
			Blank	3059	
	33	1	Are kitchen facilities used by anyone not living in household?		Household Questionnaire
			1 - Yes	124	*
			2 - No	3627	
			9 - Not applicable	103	
			Blank	3059	
	34-35	2	Total Family Income Group		Household Questionnaire
			11 - Under $1,000 (including loss)	117	See Detailed Notes
			12 - $1,000-1,999	330	
			13 - $2,000-2,999	378	
			14 - $3,000-3,999	392	
			15 - $4,000-4,999	372	
			16 - $5,000-5,999	336	
			17 - $6,000-6,999	329	
			18 - $7,000-9,999	1202	
			19 - $10,000-14,999	1519	
			20 - $15,000-19,999	842	
			21 - $20,000-24,999	431	
			22 - $25,000 and over	390	
			88 - Blank, but applicable	275	
			NOTE: The following income questions were asked only if "Total Family Income" was less than $7,000.		
			DURING PAST YEAR DID YOU OR ANY MEMBERS OF YOUR FAMILY RECEIVE MONEY FROM:		
	36	1	Wages or Salaries?		Household Questionnaire
			1 - Yes	763	*
			2 - No	697	
			8 - Blank, but applicable	140	
			9 - Not applicable	2254	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	37-40	4	If yes to above, how much altogether before deductions?		Household Questionnaire
			0001-6999 - As given	709	*
			8888 - Blank, but applicable	194	
			9999 - Not applicable	2951	
			Blank	3059	
	41	1	Social Security or Railroad Retirement?		Household Questionnaire
			1 - Yes	721	*
			2 - No	737	
			8 - Blank, but applicable	142	
			9 - Not applicable	2254	
			Blank	3059	
	42-45	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	699	*
			8888 - Blank, but applicable	164	
			9999 - Not applicable	2991	
			Blank	3059	
	46	1	Welfare Payments or Other Public Assistance?		Household Questionnaire
			1 - Yes	319	*
			2 - No	1133	
			8 - Blank, but applicable	148	
			9 - Not applicable	2254	
			Blank	3059	
	47-50	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	314	*
			8888 - Blank, but applicable	153	
			9999 - Not applicable	3387	
			Blank	3059	
	51	1	Unemployment or Workmen's Compensation?		Household Questionnaire
			1 - Yes	59	*
			2 - No	1391	
			8 - Blank, but applicable	150	
			9 - Not applicable	2254	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	52-55	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	57	*
			8888 - Blank, but applicable	152	
			9999 - Not applicable	3645	
			Blank	3059	
	56	1	Government Employee Pensions or Private Pensions?		Household Questionnaire
			1 - Yes	154	*
			2 - No	1299	
			8 - Blank, but applicable	147	
			9 - Not applicable	2254	
			Blank	3059	
	57-60	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	149	*
			8888 - Blank, but applicable	152	
			9999 - Not applicable	3553	
			Blank	3059	
	61	1	Dividends, interest or rent?		Household Questionnaire
			1 - Yes	231	*
			2 - No	1223	
			8 - Blank, but applicable	146	
			9 - Not applicable	2254	
			Blank	3059	
	62-65	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	212	*
			8888 - Blank, but applicable	165	
			9999 - Not applicable	3477	
			Blank	3059	
	66	1	Net income from own non-farm business, professional practice or partnership?		Household Questionnaire
			1 - Yes	67	*
			2 - No	1384	
			[illegible]	4	
			8 - Blank, but applicable	145	
			9 - Not applicable	2254	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	67-70	4	If yes to above, how much altogether?		Household Questionnaire
			0001-7500 - As given	57	*
			8888 - Blank, but applicable	159	
			9999 - Not applicable	3638	
			Blank	3059	
	71	1	Net income from a farm?		Household Questionnaire
			1 - Yes	102	*
			2 - No	1348	
			3 - Loss	5	
			8 - Blank, but applicable	145	
			9 - Not applicable	2254	
			Blank	3059	
	72-75	4	If yes to above, how much altogether?		Household Questionnaire
			0000-6999 - As given	98	*
			8888 - Blank, but applicable	154	
			9999 - Not applicable	3602	
			Blank	3059	
	76	1	Veteran's Payments		Household Questionnaire
			1 - Yes	104	*
			2 - No	1348	
			8 - Blank, but applicable	147	
			9 - Not applicable	2255	
			Blank	3059	
	77-80	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	99	*
			8888 - Blank, but applicable	152	
			9999 - Not applicable	3603	
			Blank	3059	
	81	1	Alimony, child support or contributions from persons not living in household?		Household Questionnaire
			1 - Yes	50	*
			2 - No	1403	
			8 - Blank, but applicable	146	
			9 - Not applicable	2255	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	82-85	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	47	*
			8888 - Blank, but applicable	149	
			9999 - Not applicable	3658	
			Blank	3059	
	86	1	Any other income?		Household Questionnaire
			1 - Yes	63	*
			2 - No	1386	
			8 - Blank, but applicable	150	
			9 - Not applicable	2255	
			Blank	3059	
	87-90	4	If yes to above, how much altogether?		Household Questionnaire
			0001-6999 - As given	60	*
			8888 - Blank, but applicable	153	
			9999 - Not applicable	3641	
			Blank	3059	
	91-94	4	Total Amount (Total of Positions 37-90)		Household Questionnaire
			0001-6999 - As given	1363	*
			8888 - Blank, but applicable	237	
			9999 - Not applicable	2254	
			Blank	3059	
	95-99	5	FAMILY UNIT CODE		Computer generated
			00001-23180	6913	See Detailed Notes
	100	1	Relationship to Head of Household		Household Questionnaire
			1 - Head (1 person living alone or with non-relatives)	849	
			2 - Head (2 or more related persons in family)	3120	
			3 - Wife	2601	
			4 - Child	163	
			5 - Other relative	180	
	101-2	2	Age at Interview		Household Questionnaire
			25-74 - As given	6913	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	103	1	Race of Examined Person		Household Questionnaire See Detailed Notes
			1 - White	5968	
			2 - Negro	873	
			3 - Other	72	
	104	1	Sex of Examined Person		Household Questionnaire
			1 - Male	3171	
			2 - Female	3742	
	105	1	Marital Status		Household Questionnaire
			1 - Under 17	0	
			2 - Married	5314	
			3 - Widowed	598	
			4 - Never married	451	
			5 - Divorced	343	
			6 - Separated	201	
			8 - Blank, but applicable	6	
	106-9	4	Date of Birth (month, year)		Household Questionnaire
			01-12 - Month as given	6913	
			00-99 - Year (1896-1975) as given	6913	
	110-11	2	Place of Birth		Household Questionnaire See Detailed Notes
			01-02, 04-06, 08-13, 15-42, 44-51, 53-56, 60-81, 91-97 } As given	6881	
			88 - Blank, but applicable	32	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	112-13	2	Highest Grade of regular school ever attended?		Household Questionnaire
			10 - None	66	
			21 - 1st Grade	21	
			22 - 2nd Grade	41	
			23 - 3rd Grade	92	
			24 - 4th Grade	110	
			25 - 5th Grade	128	
			26 - 6th Grade	203	
			27 - 7th Grade	211	
			28 - 8th Grade	780	
			31 - 9th Grade	334	
			32 - 10th Grade	480	
			33 - 11th Grade	343	
			34 - 12th Grade	2334	
			41 - First year of college	324	
			42 - Second year of college	399	
			43 - Third year of college	146	
			44 - Fourth year of college	464	
			45 - Graduate	404	
			77 - Special School	0	
			88 - Blank, but applicable	33	
			99 - Not applicable	0	
	114	1	Did he finish the grade?		Household Questionnaire
			1 - Yes	5436	
			2 - No	1307	
			8 - Blank, but applicable	104	
			9 - Not applicable	66	
	115	1	Is he attending school now?		Household Questionnaire
			1 - Yes	0	*
			[illegible]	0	
			8 - Blank, but applicable	-	
			9 - Not applicable	3854	
			Blank	3059	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	116	1	Has he ever attended a school of any kind?		Household Questionnaire
			1 - Yes	0	*
			2 - No	0	
			8 - Blank, but applicable	0	
			9 - Not applicable	3854	
			Blank	3059	
	117	1	If yes, what kind of school?		Household Questionnaire
			9 - Not applicable	3854	*
			Blank	3059	
	118	1	Is any language other than English frequently spoken in the household?		Household Questionnaire
			1 - Yes.	673	
			2 - No	6198	
			8 - Blank, but applicable	42	
	119	1	If yes, what language?		Household Questionnaire
			0 - German	47	
			1 - Italian	54	
			2 - French	93	
			3 - Polish	59	
			4 - Russian	8	
			5 - Spanish	242	
			6 - Chinese	19	
			7 - Other language	144	
			8 - Blank, but applicable	49	
			9 - Not applicable	6198	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	120-21	2	What is your main ancestry or national origin?		Household Questionnaire
			00 - German	1256	
			01 - Irish	940	
			02 - Italian	242	
			03 - French	325	
			04 - Polish	207	
			05 - Russian	67	
			06 - English	975	
			07 - Spanish	112	
			08 - Mexican	128	
			09 - Chinese	20	
			10 - Japanese	14	
			11 - American Indian	82	
			12 - Negro	868	
			13 - Jewish	24	
			14 - American	478	
			15 - Other	979	
			88 - Blank, but applicable	15	
			99 - Don't know	181	
	122	1	What was he doing most of past three months?		Household Questionnaire
			1 - Working	3741	
			2 - Keeping house	2207	
			3 - Something else	952	
			8 - Blank, but applicable	13	
			9 - Not applicable	0	
	123	1	If "something else" from above, what was he doing?		Household Questionnaire
			0 - Laid off	32	
			1 - Retired	549	
			2 - Student	56	
			3 - Other	57	
			4 - Ill	68	
			5 - Staying home	29	
			6 - Looking for work	23	
			7 - Unable to work	138	
			8 - Blank, but applicable	13	
			9 - Not applicable	5948	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	124	1	If "keeping house" or "something else" from above, did he work at a job or business at any time during the past three months?		Household Questionnaire
			1 - Yes	401	
			2 - No	2755	
			8 - Blank, but applicable	16	
			9 - Not applicable	3741	
	125	1	If "Working" from above, did he work full-time or part-time?		Household Questionnaire
			1 - Full-time	3439	
			2 - Part-time	702	
			8 - Blank, but applicable	17	
			9 - Not applicable	2755	
	126	1	Did he work at any time last week or the week before? (not around house)		Household Questionnaire
			1 - Yes.	3738	
			2 - No	384	
			8 - Blank, but applicable	36	
			9 - Not applicable	2755	
	127	1	If "no" to above, even though he did not work during that time, does he have a job or business?		Household Questionnaire
			1 - Yes	277	
			2 - No	2861	
			8 - Blank, but applicable	37	
			9 - Not applicable	3738	
	128	1	If "no" in Position 126, was he looking for work or on lay-off from a job?		Household Questionnaire
			1 - Yes	218	
			2 - No	2920	
			8 - Blank, but applicable	37	
			9 - Not applicable	3738	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	129	1	If yes to above - which?		
			1 - Looking	127	Household Questionnaire
			2 - Lay-off	72	
			3 - Both	19	
			8 - Blank, but applicable	37	
			9 - Not applicable	6658	
	130	1	Class of Worker		Household Questionnaire
			1 - Private paid	2900	
			2 - Government-Federal	175	
			3 - Government-Other	584	
			4 - Own	512	
			5 - Non-paid	49	
			6 - Never worked	9	
			8 - Blank, but applicable	16	
			9 - Not applicable	2668	
	131	1	If self-employed in "own" business and not a farm, is the business incorporated?		Household Questionnaire
			1 - Yes	70	
			2 - No	369	
			8 - Blank, but applicable	16	
			9 - Not applicable	6458	
	132-34	3	Business or Industry Code		Household Questionnaire
			017-999 - As given	6909	See Detailed Notes
			000 - Blank, but applicable	4	
	135-37	3	Occupation Code		Household Questionnaire
			001-995 As given	6907	See Detailed Notes
			000- Blank, but applicable	6	
			[illegible]		Control Record
			Month - 01-12 as given	6913	
			Day - 01-31 as given	6913	
			Year - 71-75 as given	6913	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	144-45	2	Age at Examination		Computer generated
			25-75 - As given	6913	
	146	1	Farm		Computer generated
			1 - Farm	452	See Detailed Notes
			2 - Nonfarm	6461	
	147-49	3	Poverty Index (X.XX)		Computer generated
			001-997 - As given	3671	See Detailed Notes
			998 - Index computed 998 or greater	9	*
			999 - Unknown	174	
			Blank	3059	
	150	1	Region		Computer generated
			1 - Northeast	1609	See Detailed Notes
			2 - Midwest	1710	
			3 - South	1763	
			4 - West	1831	
	151	1	FOOD PROGRAMS APPLICABILITY		Food Programs Quest.
			1 - Not applicable	2952	*
			2 - No program available	14	
			3 - Food stamps available	771	
			4 - Commodities available	107	
			8 - Blank, but applicable	10	
			Blank	3059	
	152	1	Are you certified to participate in the food stamp program?		Food Programs Quest.
			1 - Yes	299	*
			2 - No	348	
			9 - Don't know	19	
			Blank	6247	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
	153	1	Are you buying stamps now?		Food Programs Quest.
			1 - Yes, regularly	238	*
			2 - Yes, occasionally	14	
			3 - No	46	
			8 - Blank, but applicable	1	
			Blank	6614	
	154	1	What is the main reason you aren't participating in the program?		Food Programs Quest.
			1 - No need	8	*
			2 - Not enough money at the time	15	
			3 - No transportation	1	
			4 - Pride	2	
			5 - Other	17	
			8 - Blank, but applicable	3	
			Blank	6867	
	155	1	Are you certified to participate in the commodity distribution program?		Food Programs Quest.
			1 - Yes	19	*
			2 - No	73	
			9 - Don't know	3	
			Blank	6818	
	156	1	Are you receiving commodity foods now for your family?		Food Programs Quest.
			1 - Yes, regularly	17	*
			2 - Yes, occasionally	0	
			3 - No	2	
			Blank	6894	
	157	1	Why aren't you participating in the program?		Food Programs Quest.
			1 - No need	1	*
			2 - No transportation	0	
			3 - Pride	0	
			4 - Other	1	
			Blank	6911	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION & CODES	Control Counts	HANES I Data Source
			Sample Weights		See Detailed Notes
	158-163	6	Detailed Persons ÷ Locations 01-35	1892	See Detailed Notes
			Blank	5021	
	164-169	6	Blank - Data User Work Area		
	170-175	6	Detailed Persons - Locations 01-65	3854	See Detailed Notes
			Blank	3059	
	176-181	6	Blank - Data User Work Area		
	182-187	6	Detailed Persons - Locations 66-100	3059	See Detailed Notes
			Blank	3854	
	188-193	6	Detailed Persons - Locations 1-100	6913	See Detailed Notes
	194-195	2	Strata	6913	
	196-198	3	Pseudo Primary Sampling Units	6913	
	199-200	2	Work Area		
	201-204	4	Computer Measurements and Interpretations of Electrocardiograms Catalog Number 4140	6913	
	205-213	9	Work Area Blank	6913	

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	214-261	48	**MATRIX OF VALUES** **P-Wave Amplitude**		See Detailed Notes

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
214-217	218-221	222-225	226-229	230-233	234-237	238-241	242-245	246-249	250-253	254-257	258-261

-034 to +046 - as given — 6339
Blank — 574

	262-309	48	**P-Wave Duration**									

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
262-265	266-269	270-273	274-277	278-281	282-285	286-289	290-293	294-297	298-301	302-305	306-309

+000 to +035 - as given — 6339
Blank — 574

	310-357	48	**Q-Wave Amplitude**									

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
310-313	314-317	318-321	322-325	326-329	330-333	334-337	338-341	342-345	346-349	350-353	354-357

-344 to +000 - as given — 6339
Blank — 574

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	358-405	48	**Q-Wave Duration** Lead I: 358-361 · II: 362-365 · III: 366-369 · aVR: 370-373 · aVL: 374-377 · aVF: 378-381 · V_1: 382-385 · V_2: 386-389 · V_3: 390-393 · V_4: 394-397 · V_5: 398-401 · V_6: 402-405		
			+000 to +022 - as given Blank	6339 574	
	406-453	48	**R-Wave Amplitude** Lead I: 406-409 · II: 410-413 · III: 414-417 · aVR: 418-421 · aVL: 422-425 · aVF: 426-429 · V_1: 430-433 · V_2: 434-437 · V_3: 438-441 · V_4: 442-445 · V_5: 446-449 · V_6: 450-453		
			+000 to +496 - as given Blank	6339 574	
	454-501	48	**R-P Amplitude** Lead I: 454-457 · II: 458-461 · III: 462-465 · aVR: 466-469 · aVL: 470-473 · aVF: 474-477 · V_1: 478-481 · V_2: 482-485 · V_3: 486-489 · V_4: 490-493 · V_5: 494-497 · V_6: 498-501		
			+000 to +176 - as given Blank	6339 574	

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	NHANES I Data Source
	502--549	48	**R-Wave Duration** Lead I: 502-505 · II: 506-509 · III: 510-513 · aVR: 514-517 · aVL: 518-521 · aVF: 522-525 · V_1: 526-529 · V_2: 530-533 · V_3: 534-537 · V_4: 538-541 · V_5: 542-545 · V_6: 546-549		
			+000 to +024 - as given Blank	6339 574	
	550-597	48	**R-P Duration** Lead I: 550-553 · II: 554-557 · III: 558-561 · aVR: 562-565 · aVL: 566-569 · aVF: 570-573 · V_1: 574-577 · V_2: 578-581 · V_3: 582-585 · V_4: 586-589 · V_5: 590-593 · V_6: 594-597		
			+000 to +013 - as given Blank	6339 574	
	598-645	48	**S-Wave Amplitude** Lead I: 598-601 · II: 602-605 · III: 606-609 · aVR: 610-613 · aVL: 614-617 · aVF: 618-621 · V_1: 622-625 · V_2: 626-629 · V_3: 630-633 · V_4: 634-637 · V_5: 638-641 · V_6: 642-645		
			-474 to +000 - as given Blank	6339 574	

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	646-693	48	S-Wave Duration		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
646-649	650-653	654-657	658-661	662-665	666-669	670-673	674-677	678-681	682-685	686-689	690-693

+000 to +021 - as given	6339	
Blank	574	

694-741	48	T-Wave Amplitude			

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
694-697	698-701	702-705	706-709	710-713	714-717	718-721	722-725	726-729	730-733	734-737	738-741

-156 to +303 - as given	6339	
Blank	574	

742-789	48	T-P Amplitude			

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
742-745	746-749	750-753	754-757	758-761	762-765	766-769	770-773	774-777	778-781	782-785	786-789

+000 to +086 - as given	6339	
Blank	574	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	790-837	48	T-Wave Duration (Measured from Peak of T-Wave)		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
790-793	794-797	798-801	802-805	806-809	810-813	814-817	818-821	822-825	826-829	830-833	834-837

+000 to +033 - as given	6339	
Blank	574	
838-885	48	T-P Duration

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
838-841	842-845	846-849	850-853	854-857	858-861	862-865	866-869	870-873	874-877	878-881	882-885

+000 to +034 - as given	6339	
Blank	574	
886-933	48	Q-S Amplitude

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
886-889	890-893	894-897	898-901	902-905	906-909	910-913	914-917	918-921	922-925	926-929	930-933

-399 to +496 - as given	6339	
Blank	574	

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	934-981	48	Q-S Duration		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
934-937	938-941	942-945	946-949	950-953	954-957	958-961	962-965	966-969	970-973	974-977	978-981

-005 to +028 - as given	6339	
Blank	574	
982-1029	48	P-R Wave Duration

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
982-985	986-989	990-993	994-997	998-1001	1002-1005	1006-1009	1010-1013	1014-1017	1018-1021	1022-1025	1026-1029

+000 to +086 - as given	6339	
Blank	574	
1030-1077	48	ST-1 (.08 seconds after QRS)

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1030-1033	1034-1037	1038-1041	1042-1045	1046-1049	1050-1053	1054-1057	1058-1061	1062-1065	1066-1069	1070-1073	1074-1077

-148 to +147 - as given	6339	
Blank	574	

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	1078-1125	48	ST-2 (.12 seconds after QRS)		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1078-1081	1082-1085	1086-1089	1090-1093	1094-1097	1098-1101	1102-1105	1106-1109	1110-1113	1114-1117	1118-1121	1122-1125

-132 to +216 - as given — 6339
Blank — 574

	1126-1173	48	ST-3 (.16 seconds after QRS)		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1126-1129	1130-1133	1134-1137	1138-1141	1142-1145	1146-1149	1150-1153	1154-1157	1158-1161	1162-1165	1166-1169	1170-1173

-118 to +254 - as given — 6339
Blank — 574

	1174-1221	48	ST-4 (ST2-ST1)/(ST3-ST2)		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1174-1177	1178-1181	1182 1185	1186-1189	1190-1193	1194-1197	1198-1201	1202-1205	1206-1209	1210-1213	1214-1217	1218 1221

-082 to +140 - as given — 6339
Blank — 574

HEALTH AND NUTRITION EXAMINATION SURVEY (HANES I)

COMPUTER MEASUREMENTS AND INTERPRETATIONS OF ELECTROCARDIOGRAMS

(n=6913)

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	1222-1269	48	QT (Time from onset of QRS to end of T Wave)		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1222-1225	1226-1229	1230-1233	1234-1237	1238-1241	1242-1245	1246-1249	1250-1253	1254-1257	1258-1261	1262-1265	1266-1269

+000 to +098 - as given — 6339
Blank — 574

	1270-1317	48	Heart Rate		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1270-1273	1274-1277	1278-1281	1282-1285	1286-1289	1290-1293	1294-1297	1298-1301	1302-1305	1306-1309	1310-1313	1314-1317

+000 to +169 - as given — 6339
Blank — 574

	1318-1365	48	Sequence Number of Complex Measured		

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1318-1321	1322-1325	1326-1329	1330-1333	1334-1337	1338-1341	1342-1345	1346-1349	1350-1353	1354-1357	1358-1361	1362-1365

+000 to +010 - as given — 6339
Blank — 574

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	IIANES I Data Source
	1366-1425	60	Lead Code		See Detailed Notes

Lead

I	II	III	aVR	aVL	aVF	V_1	V_2	V_3	V_4	V_5	V_6
1366-1370	1371-1375	1376-1380	1381-1385	1386-1390	1391-1395	1396-1400	1401-1405	1406-1410	1411-1415	1416-1420	1421-1425

			00000 to 17536 - as given	6339	
			Blank	574	
			AXES		See Detailed Notes
	1426-1429	4	P-Wave		
			-089 to +267 - as given	6339	
			Blank	574	
	1430-1433	4	QRS		
			-089 to +267 - as given	6339	
			Blank	574	
	1434-1437	4	T-Wave		
			-089 to 4270 - as given	6339	
			Blank	574	
	1438-1441	4	Work Area		
			Blank	6913	

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	1442-1444	3	Mean Rate		See Detailed Notes
			039,041-112, 114-116, 118-121, 123-124, 129, 138 - as given	6339	
			Blank	574	
	1445-1447	3	Noise Level		See Detailed Notes
			000	5136	
			001	1203	
			Blank	574	
	1448-1450	3	Calibration		See Detailed Notes
			147, 179, 184, 194-201, 203-220, 222, 227, 241, 259 - as given	6339	
			Blank	574	
	1451-1454	4	Interpretation Code #1		See Detailed Notes
	1455-1458	4	Interpretation Code #2		See Detailed Notes
	1459-1462	4	Interpretation Code #3		See Detailed Notes
	1463-1466	4	Interpretation Code #4		See Detailed Notes
	1467-1470	4	Interpretation Code #5		See Detailed Notes

Item #	Tape Loc.	No. of Positions	ITEM DESCRIPTION AND CODES	Control Counts	HANES I Data Source
	1471-1474	4	Interpretation Code #6		See Detailed Notes
	1475-1478	4	Interpretation Code #7		See Detailed Notes
	1479-1482	4	Interpretation Code #8		See Detailed Notes
	1483-1486	4	Interpretation Code #9		See Detailed Notes
	1487-1500	14	BLANK - Data User Work Area		

DETAILED NOTES

TAPE POSITION 10

Size of Place

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

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

DETAILED NOTES

TAPE POSITION 11

SMSA

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

DETAILED NOTES

TAPE POSITIONS 22 AND 103

Race

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

DETAILED NOTES

TAPE POSITIONS 34-35

Total Family Income Group

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

DETAILED NOTES

TAPE POSITIONS 95-99

Family Unit Code

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

DETAILED NOTES
TAPE POSITIONS 110-111

UNITED STATES			OUTLYING AREAS OF THE U.S.		
	Standard Abbreviation	Code	Name of Place	Code	
ALABAMA	Ala.	01	American Samoa	60	
ALASKA	Alaska	02	Canal Zone	61	
ARIZONA	Ariz.	04	Canton and Enderbury Islands	62	
ARKANSAS	Ark.	05	Caroline Islands	63	
CALIFORNIA	Calif.	06	Cook Islands	64	
COLORADO	Colo.	08	Gilbert and Ellice Islands	65	
CONNECTICUT	Conn.	09	Guam	66	
DELAWARE	Del.	10	Johnston Atoll	67	
DIST. OF COLUMBIA	D.C.	11	Line Islands - Southern	68	
FLORIDA	Fla.	12	Mariana Islands	69	
GEORGIA	Ga.	13	Marshall Islands	70	
HAWAII	Hawaii	15	Midway Islands	71	
IDAHO	Idaho	16	Puerto Rico	72	
ILLINOIS	Ill.	17	Ryukyn Islands - Southern	73	
INDIANA	Ind.	18	Swan Islands	74	
IOWA	Iowa	19	Tokelau Islands	75	
KANSAS	Kans.	20	U.S. Misc. Caribbean	76	
KENTUCKY	Ky.	21	U.S. Misc. Pacific Islands	77	
LOUISIANA	La.	22	Virgin Islands	78	
MAINE	Maine	23	Wake Islands	79	
MARYLAND	Md.	24	Cuba	80	
MASSACHUSETTS	Mass.	25	West Indies	81	
MICHIGAN	Mich.	26	North America	91	
MINNESOTA	Minn.	27	South America	92	
MISSISSIPPI	Miss.	28	Europe	93	
MISSOURI	Mo.	29	Africa	94	
MONTANA	Mont.	30	Asia	95	
NEBRASKA	Nebr.	31	Australasia	96	
NEVADA	Nev.	32	Pacific Islands	97	
NEW HAMPSHIRE	N.H.	33			
NEW JERSEY	J.J.	34			
NEW MEXICO	N. Mex.	35			
NEW YORK	N.Y.	36			
NORTH CAROLINA	N.C.	37			
NORTH DAKOTA	N. Dak.	38			
OHIO	Ohio	39			
OKLAHOMA	Okla.	40			
OREGON	Oreg.	41			
PENNSYLVANIA	Pa.	42			
RHODE ISLAND	R.I.	44			
SOUTH CAROLINA	S.C.	45			
SOUTH DAKOTA	S. Dak.	46			
TENNESSEE	Tenn.	47			
TEXAS	Tex.	48			
UTAH	Utah	49			
VERMONT	Vt.	50			
VIRGINIA	Va.	51			
WASHINGTON	Wash.	53			
WEST VIRGINIA	W. Va.	54			
WISCONSIN	Wis.	55			
WYOMING	Wyo.	56			

DETAILED NOTES

TAPE POSITIONS 132-134 AND 135-137

Industry and Occupation Codes

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

The 1970 census of population Alphabetical Index of Industries and Occupations was used in the coding of both the industry and occupation.

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DETAILED NOTES

TAPE POSITION 146

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

DETAILED NOTES

TAPE POSITIONS 147-149

Poverty Index--Income status was determined by the Poverty Income Ratio (PIR). Poverty statistics published in the Census Bureau reports[1] were based on the poverty index developed by the Social Security Administration in 1964. (For a detailed discussion of the SSA poverty standards, see reference 2.) Modifications in the definition of poverty were adopted in 1969.[3] The standard data series in poverty for statistical use by all executive departments and establishments has been established.[4]

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

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

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

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

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

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[1] Current Population Reports, "Consumer Income," Series P-60, No. 77, May 7, 1971

[2] Orshansky, M.: "Counting the Poor: Another Look at the Poverty Profile," Social Security Bulletin, January 1965;"Who's Who Among the Poor: A Demographic View of Poverty," Social Security Bulletin, July 1965.

[3] Current Population Reports, "Special Studies," Series P-23, No. 28, August 12, 1969.

[4] Circular No. A-46, Transmitted Memorandum No. 9, Executive Office of the President, Bureau of the Budget, August 29, 1969, and Exhibit L (rev.).

DETAILED NOTES

TAPE POSITIONS 147-149

Weighted average thresholds at the low income level in 1971 by size of family and sex of head, by farm-nonfarm residence

Size of family	Total	Nonfarm			Farm		
		Total	Male[1] head	Female[1] head	Total	Male[1] head	Female[1] head
All unrelated individuals	$2,033	$2,040	$2,136	$1,978	$1,727	$1,783	$1,669
Under 65 years	2,093	2,098	2,181	2,017	1,805	1,853	1,715
65 years and over	1,931	1,940	1,959	1,934	1,652	1,666	1,643
All families	3,700	3,724	3,764	3,428	3,235	3,242	3,079
2 persons	2,612	2,633	2,641	2,581	2,219	2,224	2,130
Head under 65 years	2,699	2,716	2,731	2,635	2,317	2,322	2,195
Head 65 years and over	2,424	2,448	2,450	2,437	2,082	2,081	2,089
3 persons	3,207	3,229	3,246	3,127	2,745	2,749	2,627
4 persons	4,113	4,137	4,139	4,116	3,527	3,528	3,513
5 persons	4,845	4,880	4,884	4,837	4,159	4,159	4,148
6 persons	5,441	5,489	5,492	5,460	4,688	4,689	4,656
7 persons or more	6,678	6,751	6,771	6,583	5,736	5,749	5,516

[1]For unrelated individuals, sex of the individual.

SOURCE: U.S. Department of Commerce, Social and Economic Statistics Administration, U.S. Bureau of the Census "Characteristics of the Low Income Population: 1971," Current Population Reports, Series P-60, No. 86, p. 18.

DETAILED NOTES

TAPE POSITION 150

Region

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

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

DETAILED NOTES

TAPE POSITIONS 158-193

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

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

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

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

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

DETAILED NOTES

TAPE POSITIONS 214-1269

Matrix of Values

The amplitudes are recorded in units of tens of microvolts, volts times ten to the minus five. The durations are in tens of microseconds, seconds times ten to the minus five.

DETAILED NOTES

TAPE POSITIONS 1366-1425

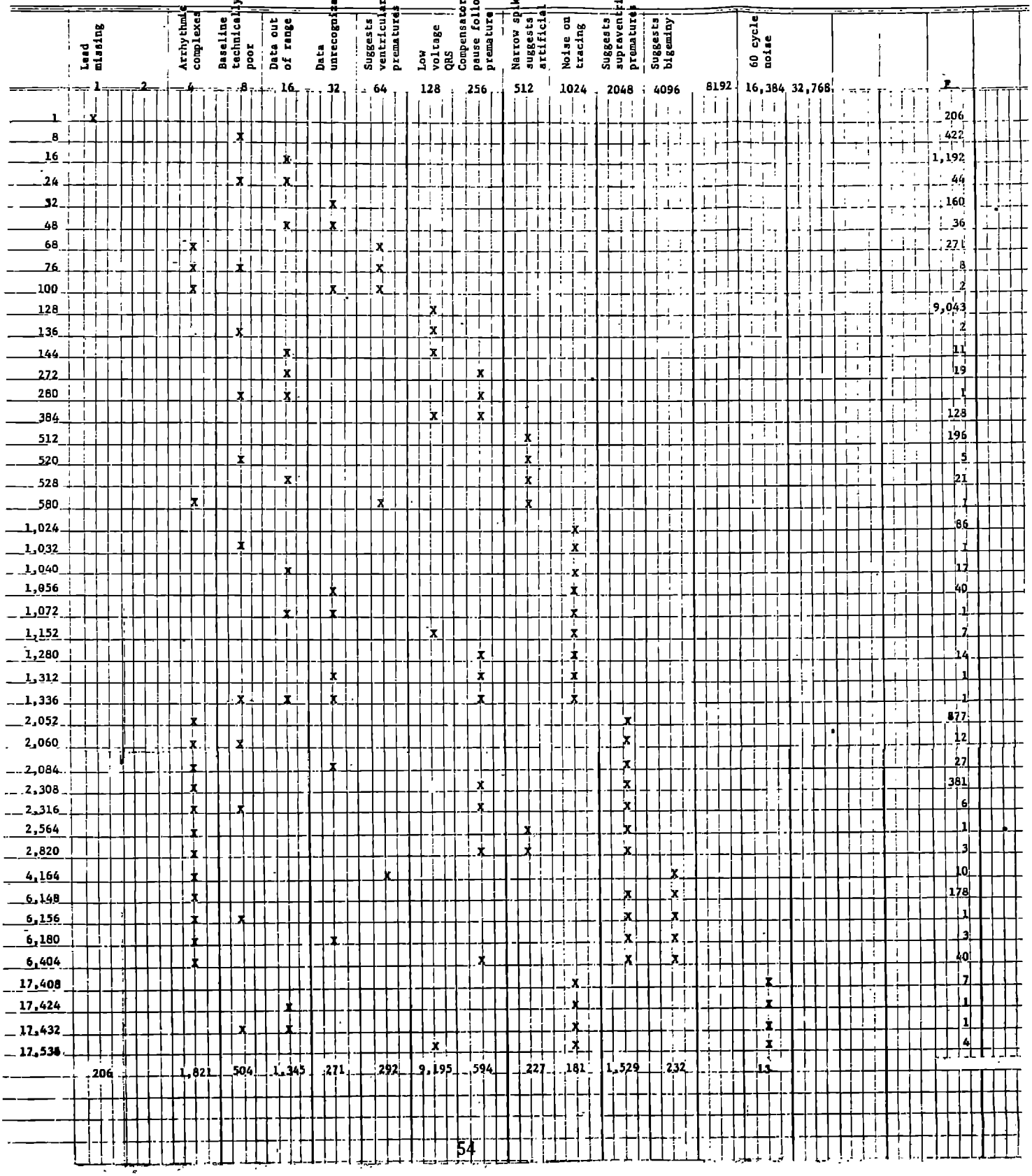
Lead Code

The lead codes are a sixteen bit binary code that has been converted to a decimal number for convenience. The interpretation of the codes is given in the attached table (Attached II) together with the total frequencies of the codes. There is a code for each lead. Each code is the sum of the numbers of the bits of which it is composed. The codes can be broken down in two ways, demonstrated on the attached table. Starting at the bottom right of the table, for any code in the table stub the largest number in the column head that is still smaller than the code is marked and subtracted. From the remainder the largest column head that is still smaller than the remainder is subtracted, repeating as necessary.

Another method is to convert the code in the table stub to a sixteen bit binary number and test the individual bits; in this case a one bit indicates the presence of a code and a zero bit, the absence of a code. The numbers on the right of the table give the frequencies with which the codes in the table stub are found on the tapes, and the numbers on the bottom give the frequencies in the number of leads for the decomposed codes.

ATTACHMENT II

LEAD CODES



DETAILED NOTES

TAPE POSITIONS 1426-1437

Axes

The axes are given in degree units.

DETAILED NOTES

TAPE POSITIONS 1442-1444

Mean Rate

Mean rate is in beats per minute. It is the average of the rates measured on the 12 individual leads and given in the matrix above, positions 1270-1317.

DETAILED NOTES

TAPE POSITIONS 1445-1447

Noise

Noise is a computed scale. Theoretically the scale is unbounded, but the presence of only ones and zeros indicates that there was a relatively low level of noise in the electrocardiograms.

DETAILED NOTES

TAPE POSITIONS 1448-1450

Calibration

The calibration is the number of digital units per analog unit, the number of A/D units per millivolt.

DETAILED NOTES

TAPE POSITIONS 1451-1486

Interpretation Codes

The codes giving the program's interpretation of the electrocardiograms are on Attachment I, with an operational definition, an English expression, and the frequency with which they were found. Lead identification used in this listing shows AVR for aVR, AVL for aVL, AVF for aVF, V1 for V_1, V2 for V_2, V3 for V_3, V4 for V_4, V5 for V_5 and V6 for V_6.

Code	Definition	Interpretation	Frequency
0023	Short PR interval	Accelerated A-V conduction - usually not significant	203
0030	Borderline PR interval	Borderline incomplete A-V block	137
0031	Prolonged PR interval	Incomplete A-V block	59
0032	Rate under 40, P present	Probable high degree A-V block	1
1114	Rate variable	Atrial fibrillation	30
2000		Sinus rhythm	5057
2005	Irregular sinus mechanism	Sinus arrhythmia	24
2015	Rhythm not identified		28
2016	Origin not identified	Regular rhythm, undetermined	19
2070	Rate over 100	Tachycardia	10
2110	Rate under 60	Bradycardia	22
2120	Rate under 40	Marked bradycardia	1
2130	Rate over 100	Sinus tachycardia	110
2140	Rate under 60	Sinus bradycardia	1044
2145	Rate 40-45	Marked sinus bradycardia	21
2170	Variable rate or artifact	Premature systoles	102
2180		Premature systoles probably ventricular	18
2190		Premature systoles probably supraventricular	126
2195	Alternating prematures	Bigeminy	10
2410	P exceeds .24 MV.	Right atrial abnormality	1
2420	P exceeds .12 sec.	Normal variant unless clinical evidence of left atrial or ventricular disease	184
2430	P terminally negative in V1	Normal variant unless clinical evidence of left atrial or ventricular disease	238
2440	P waves absent	Junctional rhythm - usually normal variant	1
2445	P and QRS axes rightward	Reversed arm leads	23
2460	Abnormal P axis		16
2470	Abnormal P axis	Junctional rhythm - usually normal variant	3
2500	Abnormal P axis, P negative in 1 or V6	Left atrial rhythm	1
3002	QRS axis range 195 to 269	Superior axis	7
3007	QRS axis range 110 to 194	Abnormal RAD, could be RVE or left posterior hemiblock	12
3010	QRS axis range 110 to 194	Abnormal RAD, possible left posterior hemiblock	7

Code	Definition	Interpretation	Frequency
3012	QRS axis range 110 to 194	Abnormal RAD	7
3017	QRS axis range 91 to 109	Slight right axis deviation	15
3022	QRS axis range 85 to 104	Vertical axis	316
3032	QRS axis range 0 to -14	Normal axis for age group	517
3042	QRS axis range 0 to -29	Slight left axis deviation	313
3052	QRS axis range -30 to -90	Abnormal left axis deviation	176
3057	QRS axis range -45 to -90	Abnormal LAD, possible left anterior hemiblock	58
3062	QRS -45 to -90, initial axis inferior and rightward	Consistent with left anterior hemiblock	63
3067		Indeterminate axis	118
3200	Low QRS voltage in limb leads	Borderline low QRS voltage	115
3210	Low QRS voltage limb or chest leads	Non-specific low voltage QRS abnormality	20
3230	QRS axis posterior and superior	Consistent with chronic lung disease	1
3240	P axis rightward, low QRS voltage limb leads and V5-V6	Consistent with chronic lung disease	2
3400	R exceeds S in V1	Probably normal variant but could be RVE	17
3401	R exceeds S in V1	Possible RVE	44
3412	R exceeds .6 MV. in V1	Possible RVE	1
3416	R exceeds S in V1 S exceeds .6 MV. in V5 or V6	Probable RVE	18
3430	R exceeds S or .6 MV. in V1 S exceeds .6 MV. in V6, RAD	Consistent with RVE	1
3450	Broad R in V1-V2	Consistent with posterior infarct	6
3900	Persistent S V3-V6	High chest lead placement unless clinical evidence of heart or lung disease	60
4011	R+S exceeds 4.5MV 1 chest lead	Possible LVE, could be normal variant this age group	4
4012	R exceeds 2.0 MV in V6	Possible LVE, could be normal variant this age group	8
4015	R exceeds 1.5 MV in lead 1	Possible LVE, could be normal variant this age group	12
4016	R exceeds 2.0 MV in 2.3 or AVF	Possible LVE, could be normal variant this age group	2
4017	Q/S V1-2 + R V5-6 exceeds 3.0	Possible LVE, could be normal variant this age group	25
4018	Q or S exceeds 1.4 MV in AVR	Possible LVE, could be normal variant this age group	17

Code	Definition	Interpretation	Frequency
4019	R exceeds .75 MV in AVL	Possible LVE, could be normal variant this age group	19
4047	Q/S V1-2 + R V5-6 exceeds 3.0	Possible LVE	205
4049	R exceeds .75 MV in AVL	Possible LVE	151
4052	R exceeds 2.0 MV in V6	Probable LVE	121
4054	R exceeds 2.6 MV in V5	Probable LVE	25
4057	Q/S V1-2 + R V5-6 exceeds 4.0	Probable LVE	21
4061	R+S exceeds 4.5MV 1 chest lead	Consistent with LVE	17
4065	R exceeds 1.5 MV in lead 1	Consistent with LVE	52
4068	Q or S exceeds 1.4 MV in AVR	Consistent with LVE	6
4069	R exceeds 1.1 MV in AVL	Consistent with LVE	39
4071	R+S exceeds 4.5MV 1 chest lead left atrial abnormality	Consistent with LVE	5
4072	R exceeds 2.0 MV in V6 left atrial abnormality	Consistent with LVE	27
4074	R exceeds 2.6 MV in V5 left atrial abnormality	Consistent with LVE	6
4075	R exceeds 1.5 MV in lead 1 left atrial abnormality	Consistent with LVE	8
4077	Q/S V1-2 + R V5-6 exceeds 3.0 left atrial abnormality	Consistent with LVE	55
4078	Q or S exceeds 1.4 MV in AVR left atrial abnormality	Consistent with LVE	6
4079	R exceeds .75 MV in AVL left atrial abnormality	Consistent with LVE	32
4081	R+S exceeds 4.5MV 1 chest lead ST depression	Consistent with LVE	9
4082	R exceeds 2.0 MV in V6 ST depression	Consistent with LVE	16
4085	R exceeds 1.5 MV in lead 1 ST depression	Consistent with LVE	19
4087	Q/S V1-2 + R V5-6 exceeds 3.0 ST depression	Consistent with LVE	36
4089	R exceeds .75 MV in AVL ST depression	Consistent with LVE	16
4091	R+S exceeds 4.5MV 1 chest lead Left axis deviation	Consistent with LVE	3
4092	R exceeds 2.0 MV in V6 left axis deviation	Consistent with LVE	6
4094	R exceeds 2.6 MV in V5 left axis deviation	Consistent with LVE	3
4095	R exceeds 1.5 MV in lead 1 left axis deviation	Consistent with LVE	17

Code	Definition	Interpretation	Frequency
4097	Q/S V1-2 + R V5-6 exceeds 3.0 left axis deviation	Consistent with LVE	21
4099	R exceeds .75 MV in AVL left axis deviation	Consistent with LVE	67
4102	R exceeds 2.0 MV in V6 intraventricular block	Consistent with LVE	1
4105	R exceeds 1.5 MV in lead 1 intraventricular block	Consistent with LVE	1
4107	Q/S V1-2 + R V5-6 exceeds 3.0 intraventricular block	Consistent with LVE	7
4109	R exceeds .75 MV in AVL intraventricular block	Consistent with LVE	1
4115	R exceeds 1.5 MV in lead 1 left atrial abnormality	Possible LVE	1
4117	Q/S V1-2 + R V5-6 exceeds 3.0 left atrial abnormality	Possible LVE	8
4119	R exceeds .75 MV in AVL left atrial abnormality	Possible LVE	1
4122	R exceeds 2.0 MV in V6 ST depression	Possible LVE	1
4135	R exceeds 1.5 MV in lead 1 left axis deviation	Possible LVE	1
4137	Q/S V1-2 + R V5-6 exceeds 3.0 left axis deviation	Possible LVE	5
4139	R exceeds .75 MV in AVL left axis deviation	Possible LVE	1
4152	R exceeds 2.0 MV in V6 non-specific T abnormality	Possible LVE	1
4157	Q/S V1-2 + R V5-6 exceeds 3.0 non-specific T abnormality	Possible LVE	5
4164	R exceeds 2.6 MV in V5 prolonged QT interval	Possible LVE	1
4167	Q/S V1-2 + R V5-6 exceeds 3.0 prolonged QT interval	Possible LVE	1
4310	High QRS voltage and RVE	Probable biventricular enlargement	7
4400	Broad QRS, terminal QRS rightward and anterior	Normal variant unless clinical evidence of heart or lung disease	75
4405	Crista pattern	Normal variant unless clinical evidence of heart or lung disease	21
4410	Broad QRS, terminal QRS rightward and anterior	Right bundle branch block	89
4430	Broad QRS	Intraventricular block	35

Code	Definition	Interpretation	Frequency
4440	Broad QRS, terminal QRS leftward, broad R V5-V6	1st degree LBBB, probable LVE	4
4445	Broad QRS, terminal QRS leftward, broad R V5-V6	Left bundle branch block	31
4450	Short PR interval, broad QRS	Wolff-Parkinson-White syndrome, type B	1
4460	Short PR interval, broad QRS	Wolff-Parkinson-White syndrome, type A	1
4475	Short PR interval, broad QRS	Possible Wolff-Parkinson-White syndrome, type unclassified	3
5000	ST depression -.1 MV. or more	Non-specific ST abnormality	8
5003	ST elevation, R-T variant	Early repolarization	400
5004	ST elevation, R-T variant	Normal for age group	85
5005		Borderline ST depression	386
5006	Sinus tachycardia and ST depression	Borderline ST depression or atrial T effects	5
5008	ST-T depression	Non-specific ST-T abnormality	98
5010	Slight ST elevation	Probably R-T variant unless clinical evidence of injury - inferior	17
5011	Slight ST elevation	Probably R-T variant unless clinical evidence of injury - anterior	19
5012	Slight ST elevation	Probably R-T variant unless clinical evidence of injury - lateral	1
5021	ST depression -.2 MV. or more	Consistent with ischemia	1
5025	Downward sloping ST segment	Non-specific ST abnormality	6
5031	ST elevation	Subepicardial injury - anterior	1
5051	Marked ST elevation	Subepicardial injury - anterior	2
5060	ST depression -.1 MV. or more negative T	Non-specific ST-T abnormality or ischemia	87
5400	Negative T waves in V1-V2	Atypical T waves, could be normal variant	24
5405	Tall T waves in V leads	May be normal variant, hyperkalemia or posterior ischemia	23
5407	Low T waves	Non-specific T abnormality	133
5408	Low or negative T waves	Non-specific T abnormality	65
5411	Negative T in V2-V4 age over 30	Could be anterior ischemia or right ventricular overload	6
5414	Negative T in V2-V4	Anterior wall ischemia	9
5415	Negative T waves	Subepicardial ischemia	2

Code	Definition	Interpretation	Frequency
5417	Negative T waves	Marked subepicardial ischemia	1
5450	Abnormal QRS-T angle, 91-269	Non-specific T abnormality	22
5470	Negative T in 2, 3, AVF	Inferior wall ischemia	3
5500	Negative T in 1, 2, AVL, V3-V6	Lateral wall ischemia	33
5505	Negative T in 1, 2, AVL, V3-V6	Marked lateral ischemia	3
5510	Negative T in 2, 3, AVF and 1, AVL, V5-V6	Inferior and lateral ischemia	5
5515	Negative T in 2, 3, AVF and 1, AVL, V5-V6	Marked inferior and lateral ischemia	1
5520	Negative T in 3 V leads and 1, 2, AVL, V3-V6	Anterolateral ischemia	10
5525	Negative T in 3 V leads and 1, 2, AVL, V3-V6	Marked anterolateral ischemia	3
6000	Unusual R progression	Reversed chest lead sequence	2
6001	Poor R progression V leads	Possible high chest lead placement, anteroseptal infarct or LVE	99
6002	Poor R progression V leads	Could be anteroseptal infarct or LVE	16
6003	Unusual R progression	Low chest lead placement or unusual anatomy	6
6004	Unusual R progression	High chest lead placement or unusual anatomy	179
6011	QS in V1-V2	Could be high chest lead placement, normal variant, anteroseptal infarct or LVE	8
6012	QS in V1-V2	Could be anteroseptal infarct or LVE	2
6021	Decreasing R amplitude V1-V3	Could be anteroseptal infarct or LVE	6
6025	Poor R progression V leads	Cannot exclude anterior infarct but probably due to LVE alone	93
6026	QS in V1-V2	Cannot exclude anterior infarct but probably due to LVE alone	1
6027	Decreasing R amplitude V1-V3	Cannot exclude anterior infarct but probably due to LVE alone	4
6028	Atypical Q V1-V4	Cannot exclude anterior infarct but probably due to LVE alone	13
6031	Atypical Q V1-V4	Could be anteroseptal infarct or LVE	23

Code	Definition	Interpretation	Frequency
6040	Small R in 2 leads of V2-V5	Possible anterior infarct or LVE	57
6050	Absent R in 2 leads of V2-V5	Consistent with anterior infarct, age undetermined	24
6060	Small or absent R and negative T 2 leads of V2-V5	Consistent with anterior infarct, age undetermined	12
6070	Small or absent R and elevated ST 2 leads of V2-V5	Consistent with acute anterior infarct	8
6075	Small or absent R and elevated ST 2 leads of V2-V5	Could be R-T variant with high chest lead placement or acute anterior infarct	4
6077	Small or absent R and elevated ST 2 leads of V2-V5	Could be R-T variant with high chest lead placement or anterior infarct	21
6080	Small or absent R and elevated ST 2 leads of V2-V5	Acute anterior infarct or old process with persistent ST elevation	2
6085	Small or absent R and elevated ST 2 leads of V2-V5	Could be LVE or anterior infarct, recent or with persistent ST elevation	5
6410	Abnormal Q or QS in 3 leads of 1,AVL,V5-V6	Consistent with anterolateral infarct, age undetermined	2
6420	Abnormal Q and negative T in 3 leads of 1,AVL,V5-V6	Consistent with anterolateral infarct, age undetermined	1
7010	Abnormal Q or QS in 2 leads of 2,3,AVF	Consistent with inferior infarct, age undetermined	14
7020	Abnormal Q and negative T in 2 leads of 2,3,AVF	Consistent with inferior infarct, age undetermined	32
7030	Abnormal Q and elevated ST in 2 leads of 2,3,AVF	Consistent with acute inferior infarct	3
7045	Abnormal Q and elevated ST in 2 leads of 2,3,AVF	Could be LVE or inferior infarct, recent or with persistent ST elevation	1
7401	Prolonged QT interval or QT-U fusion	Could be electrolyte imbalance or drug effects	1
7402	Borderline QT interval		218
7000	Borderline Q or QS in 2 leads of 2,3,AVF	Possible inferior infarct	76