1980 Census of Population and Housing DOT Journey-to-Work (SMSA) 1975-1976 Data Base Dictionary.

D1-D80-WORK-14-TECHDD

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DOT JOURNEY TO WORK (SMSA) 1975-76

DATA BASE DICTIONARY

FILE NAME : DOT JOURNEY TO WORK [SMSA] 1975-76

INTRODUCTION:
THE TRAVEL TO WORK DATA CONTAINED IN THIS FILE ARE FROM THE TRAVEL-
TO-WORK SUPPLEMENT TO THE 1975-76 ANNUAL HOUSING SURVEY [AHS] SMSA
SAMPLE, SPONSORED BY THE US DEPARTMENT OF TRANSPORTATION. THE 1975-76
AHS SMSA SAMPLE WAS ENUMERATED BY DIRECT PERSONAL INTERVIEW, DURING
THE PERIOD APRIL 1975 THROUGH MARCH 1976, BY THE BUREAU OF THE CENSUS
ACTING AS THE COLLECTION AGENT FOR THE US DEPARTMENT OF HOUSING AND
URBAN DEVELOPMENT.

THE 1975-76 AHS SMSA SAMPLE CONSISTS OF APPROXIMATELY 15,000 HOUSING
UNITS LOCATED IN EACH OF FOUR LARGE SMSA'S AND 5,000 IN THE
REMAINING 17 METROPOLITAN AREAS. THE SAMPLE WAS SELECTED FROM HOUSING
UNITS ENUMERATED IN THE 1970 CENSUS AND UPDATED BY A SAMPLE OF ADDRESSES
FROM BUILDING PERMITS TO INCLUDE UNITS CONSTRUCTED SINCE 1970. HOUSING
UNITS OCCUPIED ENTIRELY BY PERSONS WITH USUAL RESIDENCE ELSEWHERE [URE]
ARE VACANT UNITS. THE CHARACTERISTICS OF THE TEMPORARY RESIDENTS DO NOT
APPEAR ON THE FILE. VACANT OR URE MOBILE HOMES WITH NO PERMANENT ROOM
ADDED, VACANT OR URE PERMANENT HOUSING UNITS IN TRANSIENT HOTELS OR
MOTELS, AND VACANT OR URE UNSPECIFIED HOUSING UNITS ARE TREATED AS
NONINTERVIEWS.

THE TRAVEL-TO-WORK SUPPLEMENT IS DESIGNED TO PROVIDE CURRENT INFORMATION
FOR SELECTED METROPOLITAN AREAS CONCERNING SUCH SUBJECTS AS PLACE OF
WORK, MEANS OF TRANSPORTATION TO WORK, CARPOOLING AND CARPOOL OCCUPANCY,
TRAVEL TIME TO WORK, DISTANCE TO WORK, TIME OF DEPARTURE FOR WORK, AND
OTHER TRANSPORTATION-RELATED SUBJECTS. THE SERIES OF SUPPLEMENTARY
QUESTIONS ON TRAVEL TO WORK WERE ASKED OF ALL HOUSEHOLD MEMBERS 14 YEARS
AND OVER WHO HAD A JOB DURING THE WEEK PRIOR TO INTERVIEW. THIS PUBLIC
USE COMPUTER TAPE PRESENTS THE BASIC RECORDS OF EACH OF THE APPROXIMATELY
267,000 WORKERS SAMPLED IN THE 1975-76 TRAVEL-TO-WORK SUPPLEMENT. THE
FILE CONTAINS TRANSPORTATION DATA FROM THE SUPPLEMENT, AND SELECTED
DEMOGRAPHIC AND HOUSEHOLD CHARACTERISTICS WHICH ARE ALSO AVAILABLE
FROM THE AHS PUBLIC USE FILES. A LIST OF THE DATA ITEMS AND THEIR
UNIVERSES IS AVAILABLE WITH THIS DOCUMENTATION.

GEOGRAPHIC IDENTIFICATION PROVIDED ON THE FILES IS IN ACCORDANCE WITH
THE BUREAU OF THE CENSUS' CONFIDENTIALITY RESTRICTIONS, WHICH BY LAW
[TITLE 13, US CODE] PROHIBIT THE DISCLOSURE OF ANY DATA WHICH MIGHT
SPECIFICALLY IDENTIFY ANY INDIVIDUAL PERSON, HOUSEHOLD, OR HOUSING
UNIT. AS THESE DATA ARE BASIC WORKER RECORDS, THE ADVANTAGES DERIVED
FROM THESE TAPE FILES INCLUDE THE CAPABILITY OF OBTAINING A MORE
DETAILED CLASSIFICATION WITHIN EACH OF THE ITEMS SHOWN, AS WELL AS
THE FLEXIBILITY OF MANIPULATING VARIABLES TO FIT A USER'S SPECIFIC
NEEDS.

SMSA IDENTIFICATION:

THE FOLLOWING SMSA'S AND SMSA COMPONENTS ARE CONTAINED ON THE 1975-76 SMSA FILES:

COUNTY	CODE	CENTRAL CITY
PHILADELPHIA,PA-NJ		
PENNSYLVANIA		
BUCKS	017	
CHESTER	029	
DELAWARE	045	
MONTGOMERY	091	
PHILADELPHIA	101	X
NEW JERSEY		
CAMDEN	007	
BALANCE OF SMSA	999	
ATLANTA,GA		
DEKALB,FULTON	888	X
BALANCE OF SMSA	999	
CHICAGO,IL		
COOK	031	X
DUPAGE	043	
KANE	089	
LAKE	097	
BALANCE OF SMSA	999	
SAN FRANCISCO-OAKLAND,CA		
ALAMEDA	001	X
SAN FRANCISCO	075	
SAN MATEO	081	
BALANCE OF SMSA	999	
CINCINNATI,OH-KY-IN	999	X
COLORADO SPRINGS,CO	999	X
COLUMBUS,OH	999	X
HARTFORD,CN	999	
KANSAS CITY,MO-KS	999	X
MADISON,WI	999	
MIAMI,FL	999	X
MILWAUKEE,WI		
MILWAUKEE	079	X
BALANCE OF SMSA	999	
NEW ORLEANS,LA		X

TEXT SECTION

ORLEANS	071	
BALANCE OF SMSA	999	
NEWPORT NEWS-HAMPTON, VA	999	
PATERSON-CLIFTON-PASSAIC, NJ	999	X
PORTLAND, OR-WA	999	X
ROCHESTER, NY	999	X
SAN ANTONIO, TX	999	X
SAN BERNARDINO-RIVERSIDE-ONTARIO, CA	999	X
SAN DIEGO, CA	999	X
SPRINGFIELD-CHICOPEE-HOLYOKE, MA-CN	999	

USE OF THIS :DATA BASE DICTIONARY:

THIS COMPUTER GENERATED REPORT DOCUMENTS THE DATA CONTENTS AND RECORD
LAYOUT FOR THE TRAVEL-TO-WORK SUPPLEMENT TO THE 1975-76 SMSA AHS. THIS
REPORT IS ORGANIZED INTO 2 PARTS. ONE PART CONTAINING A GENERAL TEXTUAL
DESCRIPTION OF THE FILE, AND ONE PART CONTAINING A DESCRIPTION OF EACH
DATA ITEM IN THE FILE. THE DATA ITEM DESCRIPTION CONTAINS SEVERAL PIECES
OF INFORMATION FOR EACH DATA ITEM AS FOLLOWS:

NAME: AN ARBITRARILY ASSIGNED 12 CHARACTER LABEL. IT MAY BE A
                MNEMONIC OR A NUMERIC VALUE INDICATING THE LOCATION OF
                THE VARIABLE ON THE SURVEY QUESTIONNAIRE. FOR EXAMPLE,
                H006 IS A HOUSING VARIABLE DERIVED FROM THE QUESTION
                INDICATED BY THE NUMBER 6 ENCIRCLED ON THE QUESTIONNAIRE

DESCRIPTIVE
LABEL: A 40 CHARACTER LABEL DESCRIBING THE DATA ITEM

LENGTH: THE SIZE IN CHARACTERS, OF THE DATA ITEM

BEGIN: THE LOCATION IN THE DATA RECORD OF THE FIRST CHARACTER
                OF THE DATA ITEM

MAXIMUM VALUE: THE HIGHEST VALUE THIS DATA ITEM MAY CONTAIN

MINIMUM VALUE: THE LOWEST VALUE THIS DATA ITEM MAY CONTAIN

SAMPLING VARIABILITY ASSOCIATED WITH THESE DATA IS DISCUSSED IN
APPENDIX B ATTACHED TO THIS TECHNICAL DOCUMENTATION.

NOTE: MAXIMUM AND MINIMUM VALUES ARE DISPLAYED ONLY FOR
CODE TYPE ITEMS [SUCH AS STATE CODE]

DATA CATEGORY: THIS FIELD INDICATES WHETHER THE DATA ITEM IS A
NUMERIC ITEM WHICH CAN BE MEANINGFULLY PROCESSED
ALGEBRAICALLY OR A CODE ITEM FROM WHICH
IT WOULD NOT BE MEANINGFUL TO SUMMARIZE OR DERIVE
PERCENTAGES

IMPLIED
DECIMAL PLACES: THIS FIELD INDICATES HOW MANY, IF ANY, IMPLIED
DECIMAL PLACES THE DATA ITEM CONTAINS

FILE STRUCTURE:

THE FILE SET INCLUDES SEPARATE FILES FOR EACH OF THE 21 SMSAS CONTAINED
IN THE 1975-76 SURVEY. WITHIN EACH SMSA THE BASIC UNIT IS A WORKER RECORD
THAT IS, THERE IS A SEPARATE DATA RECORD FOR EACH WORKER IN THE SURVEY.
IN ADDITION TO THE SPECIFIC WORKER'S TRANSPORTATION CHARACTERISTICS, EACH
RECORD ALSO CONTAINS THE FULL RANGE OF CHARACTERISTICS ASSOCIATED WITH
HIS OR HER OWN HOUSEHOLD AND HOUSEHOLD HEAD. THE DATA RECORDS ARE
ARRANGED IN HOUSEHOLD CONTROL NUMBER ORDER WITH UNIQUE IDENTIFICATION
BEING PROVIDED BY THE COMBINATION OF CONTROL NUMBER AND WORKER LINE
NUMBER. IN CASES WHERE THERE ARE NO WORKERS IN THE HOUSEHOLD, THERE IS A
RECORD PROVIDED WHICH CONTAINS DEMOGRAPHIC AND HOUSEHOLD CHARACTERISTICS
BUT THE WORKER WEIGHT AND LINE NUMBER OF THE WORKER FIELDS ARE ZERO-
FILLED AND THE TRANSPORTATION DATA ITEM FIELDS ARE FILLED WITH 9'S.

RECORDING MODE:

THESE FILES WILL NORMALLY BE RECORDED ON TAPE WITH :IBM: STANDARD LABELS.
OPTIONALLY THE FILES CAN BE SUPPLIED ON UNLABELLED TAPES WITH A SINGLE
TAPE MARK SEPARATING THE FILES.

CHARACTER SET:

A LIMITED CHARACTER SET CONSISTING OF ALPHABETIC AND NUMERIC CHARACTERS
ONLY IS USED IN THE DATA FILES. SEVEN TRACK TAPES WILL BE RECORDED USING
THE BCD CHARACTER SET AND 9 TRACK TAPES WILL BE RECORDED USING THE EBCDIC
CHARACTER SET.

FILE SIZE AND COST:

DATA FOR EACH METROPOLITAN AREA [SMSA] ARE CONTAINED IN A SERIES OF 408
CHARACTER RECORDS, ONE RECORD FOR EACH OF THE WORKERS IN THE
SURVEY. DATA FOR A SINGLE SMSA CAN BE PURCHASED SEPARATELY OR
ALL 21 FILES CAN BE OBTAINED ON 2 OR 4 REELS OF TAPE DEPENDING
THE DESIRED DENSITY. THE COST OF EACH REEL IS $80.

THESE FILES CAN BE ORDERED THROUGH:

CUSTOMER SERVICES BRANCH
DATA USERS SERVICES DIVISION
BUREAU OF THE CENSUS
WASHINGTON, D.C. 20233
PHONE [301] 763-2400

THE DATA ARE ALSO AVAILABLE RECORDED WITH SMALLER BLOCKSIZES FOR THOSE
PURCHASERS WHO REQUIRE SMALLER BLOCKSIZES. ADDITIONAL REELS OF TAPE
MAY BE REQUIRED WHEN COPIES ARE MADE USING SMALLER BLOCKSIZES.
WHEN ORDERING PLEASE SPECIFY DENSITY AND TRACK DESIRED. PAYMENT MUST
BE INCLUDED WITH THE ORDER.

FURTHER INFORMATION:

FOR PUBLISHED DATA FROM THIS SURVEY SEE:

SELECTED CHARACTERISTICS OF TRAVEL TO WORK IN 21 METROPOLITAN AREAS:
1975. SERIES P-23, NUMBER 68.

FOR FURTHER INFORMATION AND COMMENTS PLEASE CONTACT :

MR PHILIP FULTON, CHIEF, JOURNEY-TO-WORK STATISTICS STAFF
                  POPULATION DIVISION

MR PHILLIP SALOPEK, JOURNEY-TO-WORK STATISTICS STAFF
                   POPULATION DIVISION

MR. LARRY CARBAUGH DATA USER SERVICES DIVISION

NOTES:

FIELDS CONTAINING INCOME VALUES [H241, H281, ETC] ARE TOO LARGE
IN TERMS OF THE NUMBER OF CHARACTERS TO APPLY THE FOUR CHARACTER
LABEL ALLOWED FOR VALUE LABELS IN THE DICTIONARY. THE DATA ARE THUS
REPRESENTED AS FOLLOWS..

00000   NO INCOME
00001 $1
  .
  .
49999 $49,999
50000 $50,000 OR MORE
99999   OUT OF UNIVERSE
FIELDS H252, H254 [SELF EMPLOYMENT INCOME] CAN ALSO HAVE NEGATIVE
VALUES SO THAT -10000 REPRESENTS AN INCOME LOSS OF $10,000.

SPECIAL TABULATION ZONES:

TEXT SECTION

THE BUREAU OF THE CENSUS HAS DEFINED SPECIAL TABULATION ZONES FOR
THE PURPOSE OF REPORTING THE RESULTS OF THE DEPARTMENT OF
TRANSPORTATION TRAVEL-TO-WORK SUPPLEMENT. EACH SMSA HAS BEEN
DIVIDED ALONG TRACT BOUNDARIES INTO AT LEAST 2 SPECIAL TABULATION
ZONES. LABELED A AND R . SPECIAL TABULATION ZONE A (TZA) WAS
DELINEATED ACCORDING TO THE CRITERIA OUTLINED BELOW. SPECIAL
TABULATION ZONE R (TZR) CONSISTS OF THE REMAINDER OF THE TRACTS
IN THE SMSA. THAT IS, THOSE THAT DO NOT MEET THE CRITERIA. IN ALL
CASES THE CENSUS TRACT BOUNDARIES AND INCORPORATED PLACE POPULATIONS
USED IN DEFINING THE SPECIAL TABULATION ZONES WERE THOSE OBSERVED
FOR OR RESULTING FROM THE 1970 CENSUS.

IN ORDER TO ACHIEVE A NATIONALLY UNIFORM SET OF AREAS FOR USE
IN THE TRAVEL-TO-WORK SUPPLEMENT. THE OUTER BOUNDARY OF TZA
(WITH A FEW EXCEPTIONS) ENCOMPASSES THOSE TRACTS WHICH IN 1970
HAD 40% OR MORE OF THEIR POPULATION LIVING INSIDE THE URBANIZED
AREA (UA) AS DEFINED BY THE BUREAU OF THE CENSUS. THE
FOLLOWING EXCEPTIONS WERE MADE TO THE GENERAL RULE IN ORDER TO
MAKE THE TZA MORE COMPACT AND TO REDUCE THE JAGGEDNESS OF THE
BOUNDARY.

1. TRACTS WITH NO POPULATION LIVING INSIDE THE 1970 URBANIZED
   AREA WERE INCLUDED WITHIN THE TZA IF THEY WERE COMPLETELY
   SURROUNDED BY QUALIFYING TRACTS.

2. TRACTS WITH LESS THAN 20% OF THEIR TOTAL POPULATION LIVING
   WITHIN THE 1970 UA WERE INCLUDED WITHIN THE TZA IF A) THEY
   WERE COMPLETELY SURROUNDED BY QUALIFYING TRACTS; OR B) THEY
   INCLUDED 500 OR MORE INHABITANTS OF THE SMSA CENTRAL CITY
   AS BOUNDED JANUARY 1, 1970.

3. TRACTS WITH 20 TO 40 PERCENT OF THEIR TOTAL
   POPULATION LIVING WITHIN THE 1970 UA WERE INCLUDED WITHIN
   TZA IF A) THEY WERE COMPLETELY SURROUNDED BY QUALIFYING TRACTS
   B] THEY INCLUDED 500 OR MORE INHABITANTS OF AN SMSA CENTRAL
   CITY [AS BOUNDED JANUARY 1 1970]. OR C] THE INCLUSION OF THE
   TRACT SERVED TO CLOSE AN INDENTATION AND PROVIDE A SMOOTHER
   TZA BOUNDARY.

4. IN CASES WHERE THE TRACT HAS FAILED TO QUALIFY FOR INCLUSION
   WITHIN TZA UNDER THE CRITERIA OUTLINED ABOVE. BUT THERE IS A
   PART OF THE TRACT WHICH IS INSIDE THE CITY LIMITS. THE TZA
   BOUNDARY DOES NOT FOLLOW TRACT LINES. IN THESE INSTANCES THE
   TZA BOUNDARY FOLLOWS THE CITY LIMITS. SO THAT THE CENTRAL
   CITY PART OF THE TRACT IS INCLUDED IN TZA. AND THE REMAINDER
   OF THE TRACT IS INCLUDED IN TZR.

IN A FEW INSTANCES THE SMSA HAS BEEN DIVIDED INTO MORE THAN TWO
SPECIAL TABULATION ZONES. WHEN THIS OCCURS. THE CRITERIA OUTLINED
ABOVE HAVE BEEN EMPLOYED TO DEFINE AS MANY AS FOUR AREAS [TZA, TZB.
TZC. OR TZD]. WITH THE REMAINDER OF THE TRACTS IN THE SMSA AGAIN

TEXT SECTION

COMPRISING TZR. QUESTIONS CONCERNING THE DELINEATION OF THE
SPECIAL TABULATION ZONES. INCLUDING REQUESTS FOR MAPS INDICATING
THE EXACT BOUNDARIES USED. MAY BE REFERRED TO THE JOURNEY TO
WORK STATISTICS STAFF. POPULATION DIVISION. BUREAU OF THE CENSUS.
WASHINGTON. DC.

LINE NUMBERS:

SELECTED DATA [AGE. SEX. RACE. MARITAL STATUS. RELATIONSHIP TO
HEAD AND WAGE/SALARY INCOME] ARE PRESENTED ON EACH RECORD FOR EACH
PERSON IN A HOUSING UNIT. EACH PERSON [UP TO 15 PEOPLE] IS ASSIGNED
A LINE NUMBER. THE DATA FIELDS ARE IDENTIFIED WITH THIS NUMBER
[E.G. LNN02 IS THE SECOND PERSON IN THE UNIT. AGE02 CONTAINS
THE AGE OF THIS PERSON. SEX02 CONTAINS THE SEX. ETC.]. H240. H242.
H244. H246. H248. AND H250 IDENTIFY FAMILY MEMBERS 14 YEARS OLD AND
OVER WITH H241. H243. H245. H247. H249 AND H251 RESPECTIVELY
CONTAINING THE WAGE/SALARY OF THESE PERSONS. [NOTE: INCOME DATA
ARE NOT AVAILABLE FOR PERSONS IN THE HOUSEHOLD WHO ARE NOT RELATED TO
THE HOUSEHOLD HEAD]. IF THERE ARE MORE THAN SIX PERSONS 14 YEARS OLD
AND OVER IN THE FAMILY FIELD H250 WILL CONTAIN A 99 AND H251 WILL
BE THE AGGREGATE INCOME OF THE REMAINING PERSONS. THAT IS. PERSON
6. PERSON 7. ETC.

LINE NUMBER OF WORKER: THIS LINE NUMBER. IN CONJUNCTION WITH THE
CONTROL NUMBER. UNIQUELY IDENTIFIES THE DATA RECORD AND A PERSON 14
OR OLDER WHO HAD A JOB AND WHOSE TRANSPORTATION CHARACTERISTICS
ARE CONTAINED ON THE RECORD. IN ORDER TO PICK UP OTHER CHARACTERISTICS
FOR THIS WORKER. THE USER SHOULD MATCH THE WORKER LINE NUMBER TO THE
PERSON LINE NUMBER ELSEWHERE ON THE RECORD. IMMEDIATELY FOLLOWING THE
APPROPRIATE PERSON LINE NUMBER WILL BE THE RELATIONSHIP. AGE. MARITAL
STATUS. RACE. AND SEX OF THE WORKER. THE PERSON LINE NUMBER CAN
ALSO BE ASSOCIATED WITH A WAGE/SALARY INCOME FIELD.

LINE NUMBER OF THE DOT RESPONDENT : THIS IS THE LINE NUMBER OF THE
PERSON IN THE HOUSEHOLD WHO PROVIDED THE TRAVEL-TO-WORK INFORMATION
CONTAINED IN THE RECORD. THIS LINE NUMBER HAS NOT BEEN EDITED FOR
CONSISTENCY OR ACCURACY.

RESPONDENT LINE NUMBER : THIS IS THE LINE NUMBER OF THE PERSON IN THE
HOUSEHOLD WHO PROVIDED THE HOUSEHOLD AND DEMOGRAPHIC CHARACTERISTICS
CONTAINED ON THE RECORD.

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
CNTNO	CONTROL NUMBER SAME AS CONTROL NUMBER ON 1975 AHS SMSA FILES	11	1	99999	00000	CODE	0
HHWGT	HOUSEHOLD WEIGHT WEIGHT WILL BE ZERO FOR ALL BUT FIRST WORKER IN THE HOUSEHOLD	12	12			NUMBER	2
WKWGT	WORKER WEIGHT ZERO INDICATES NO WORKERS IN HOUSEHOLD	12	24			NUMBER	2
WKLNNO	LINE NUMBER OF WORKER 00 NO WORKER IN HOUSEHOLD	2	36	00999	00000	CODE	0
RESLNNO	LINE NUMBER OF DOT RESPONDENT 99 OUT OF UNIVERSE	2	38	00999	00000	CODE	0
WRK390	MEANS OF TRANSPORTATION TO WORK 101 TRUCK, DRIVES ALONE 102 TRUCK, SHARES DRIVING 103 TRUCK, DRIVES OTHERS 104 TRUCK, RIDES WITH SOMEONE ELSE 201 AUTO, DRIVES ALONE 202 AUTO, SHARES DRIVING 203 AUTO, DRIVES OTHERS 204 AUTO, RIDES WITH SOMEONE ELSE 005 WALKS ONLY 006 WORKS AT HOME 007 RAILROAD 008 SUBWAY OR ELEVATED 009 BUS OR STREETCAR 010 TAXICAB 011 MOTORCYCLE 012 OTHER MEANS 013 BICYCLE 999 OUT OF UNIVERSE	3	40	09999	00000	CODE	0
WRK392	WORKER ALSO USES CAR 1 YES 2 NO 9 OUT OF UNIVERSE	1	43	00099	00000	CODE	0
WRK393	NUMBER OF PERSONS IN CARPOOL 01 ONE PERSON 02 TWO PERSONS 03 THREE PERSONS 04 FOUR PERSONS 05 FIVE PERSONS 06 SIX PERSONS 07 SEVEN PERSONS	2	44			NUMBER	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP. DEC PLACES
	08 EIGHT PERSONS 09 NINE PERSONS 10 TEN OR MORE PERSONS 99 OUT OF UNIVERSE						
WRK394	WORKS AT SAME LOCATION EACH DAY 1 YES 2 NO 9 OUT OF UNIVERSE	1	46	00099	00000	CODE	0
WRK395	REPORTS IN TO SAME LOCATION EACH DAY 1 YES 2 NO 9 OUT OF UNIVERSE	1	47	00099	00000	CODE	0
WRK398	TIME LEAVING FOR WORK [AM OR PM] 1 AM 2 PM 9 OUT OF UNIVERSE	1	48	00099	00000	CODE	0
WRK397	TIME LEAVING FOR WORK [HOUR AND MINUTE] HHMM HOUR AND MINUTE 9999 OUT OF UNIVERSE	4	49	99999	00000	CODE	0
WRK399	TIME TAKEN TO GET TO WORK [ONE WAY] 001 ONE MINUTE 199 199 MINUTES OR MORE 999 OUT OF UNIVERSE	3	53			NUMBER	0
WRK400	DISTANCE TO WORK [ONE WAY] 000 LESS THAN 1 MILE 201 201 MILES OR MORE 999 OUT OF UNIVERSE	3	56			NUMBER	0
WRK401	MODE CHANGE DURING LAST YEAR 1 YES 2 NO 9 OUT OF UNIVERSE	1	59	00099	00000	CODE	0
WRK400RC	SPEED OF JOURNEY TO WORK [RECODE] [DISTANCE LESS THAN 1 MILE] 00 0 MPH [DISTANCE LESS THAN 1 MILE] 97 97 MPH OR MORE 99 OUT OF UNIVERSE	2	60			NUMBER	0
WRK402	PRIOR MODE OF TRANSPORTATION TO WORK 101 TRUCK, DRIVES ALONE 102 TRUCK, SHARES DRIVING 103 TRUCK, DRIVES OTHERS 104 TRUCK, RIDES WITH SOMEONE ELSE 201 AUTO, DRIVES ALONE	3	62	09999	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	IMP.DEC PLACES
	202 AUTO. SHARES DRIVING						
	203 AUTO. DRIVES OTHERS						
	204 AUTO. RIDES WITH SOMEONE ELSE						
	005 WALKS ONLY						
	006 WORKS AT HOME						
	007 RAILROAD						
	008 SUBWAY OR ELEVATED						
	009 BUS OR STREETCAR						
	010 TAXICAB						
	011 MOTORCYCLE						
	012 OTHER MEANS						
	013 BICYCLE						
	999 OUT OF UNIVERSE						
WRK404	SATISFACTION WITH MODE OR CHANGE IN MODE	1	65	00099	00000	CODE	0
	1 MUCH MORE SATISFIED						
	2 MORE SATISFIED						
	3 ABOUT THE SAME SATISFACTION						
	4 LESS SATISFIED						
	5 MUCH LESS SATISFIED						
	6 DONT KNOW						
	7 DID NOT WORK LAST YEAR						
	9 OUT OF UNIVERSE						
WKSMSA	WORKPLACE SMSA CODE [SEE ATTACHED LIST FOR SMSA CODES]	4	66	99999	00000	CODE	0
	9996 NO FIXED PLACE OF WORK						
	9997 OUTSIDE ANY SMSA						
	9998 PLACE OF WORK NOT REPORTED						
	9999 OUT OF UNIVERSE						
WKSTATE	WORKPLACE STATE CODE [SEE ATTACHED LIST FOR STATE CODE]	2	70	00999	00000	CODE	0
	96 NO FIXED PLACE OF WORK						
	98 PLACE OF WORK NOT REPORTED						
	99 OUT OF UNIVERSE						
WKCNTY	WORKPLACE COUNTY CODE [SEE ATTACHED LIST FOR COUNTY CODES]	3	72	09999	00000	CODE	0
	996 NO FIXED PLACE OF WORK						
	998 PLACE OF WORK NOT REPORTED						
	999 OUT OF UNIVERSE						
WKCENC	WORKPLACE CENTRAL CITY FLAG	1	75	00099	00000	CODE	0
	1 CENTRAL CITY						
	2 OAKLAND, CALIFORNIA						
	3 BALANCE OF SMSA						
	6 NO FIXED PLACE OF WORK						
	7 OUTSIDE SMSA OF RESIDENCE						
	8 PLACE OF WORK NOT REPORTED						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	VALUE BEGIN	MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
WKCBD	9 OUT OF UNIVERSE						
	WORKPLACE CBD FLAG	1	76	00099	00000	CODE	0
	0 WORKS AT HOME						
	1 WORKPLACE TRACT IN CBD						
	2 WORKPLACE TRACT NOT IN CBD						
	5 NO FIXED PLACE OF WORK						
	7 OUTSIDE SMSA OF RESIDENCE						
	8 PLACE OF WORK NOT REPORTED						
	9 OUT OF UNIVERSE						
WKSTZ	WORKPLACE SPECIAL TAB ZONE	2	77	00999	00000	CODE	0
	00 WORKS AT HOME						
	01 SPECIAL ZONE A						
	02 SPECIAL ZONE B						
	03 SPECIAL ZONE C						
	04 SPECIAL ZONE D						
	05 SPECIAL ZONE R						
	06 INSIDE SMSA, ZONE NOT IDENTIFIED						
	96 NO FIXED PLACE OF WORK						
	97 OUTSIDE SMSA OF RESIDENCE						
	98 PLACE OF WORK NOT REPORTED						
	99 OUT OF UNIVERSE						
WKPLAC	WORKPLACE PLACE CODE PLACES OF 25,000 OR MORE [SEE ATTACHED LIST FOR PLACE CODE]	4	79	99999	00000	CODE	0
	0000 WORKS AT HOME						
	9996 NO FIXED PLACE OF WORK						
	9997 OUTSIDE SMSA OF RESIDENCE						
	9998 PLACE OF WORK NOT REPORTED						
	9999 OUT OF UNIVERSE						
WKPLSZ	WORKPLACE PLACE SIZE	1	83	00099	00000	CODE	0
	0 WORKS AT HOME						
	1 25,000 - 49,999						
	2 50,000 - 99,999						
	3 100,000 - 249,999						
	4 250,000 - 499,999						
	5 500,000 AND OVER						
	6 NO FIXED PLACE OF WORK						
	7 OUTSIDE SMSA OF RESIDENCE						
	8 PLACE OF WORK NOT REPORTED						
	9 OUT OF UNIVERSE						
RSSMSA	RESIDENCE SMSA CODE	4	84	99999	00000	CODE	0
	0520 ATLANTA						
	1600 CHICAGO						
	1640 CINCINNATI						
	1720 COLORADO SPRINGS						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	IMP.DEC PLACES
	1840 COLUMBUS, OHIO						
	3280 HARTFORD						
	3760 KANSAS CITY						
	4720 MADISON						
	5000 MIAMI						
	5080 MILWAUKEE						
	5560 NEW ORLEANS						
	5680 NEWPORT NEWS-HAMPTON						
	6040 PATERSON-CLIFTON-PASSAIC						
	6160 PHILADELPHIA						
	6440 PORTLAND, OREGON						
	6840 ROCHESTER, NEW YORK						
	7240 SAN ANTONIO						
	7280 SAN BERNARDINO-RIVERSIDE-ONTARIO						
	7320 SAN DIEGO						
	7360 SAN FRANCISCO-OAKLAND						
	8000 SPRINGFIELD-CHICOPEE-HOLYOKE						
RSCENC	RESIDENCE CENTRAL CITY FLAG	1	88	00099	00000	CODE	0
	1 INSIDE CENTRAL CITY						
	2 OAKLAND, CALIFORNIA						
	3 OUTSIDE CENTRAL CITY						
	9 NOT APPLICABLE						
RSSTATE	RESIDENCE STATE CODE	2	89	00999	00000	CODE	0
	06 CALIFORNIA						
	08 COLORADO						
	09 CONNECTICUT						
	12 FLORIDA						
	13 GEORGIA						
	17 ILLINOIS						
	20 KANSAS						
	22 LOUISIANA						
	25 MASSACHUSETTS						
	29 MISSOURI						
	34 NEW JERSEY						
	36 NEW YORK						
	39 OHIO						
	42 PENNSYLVANIA						
	48 TEXAS						
	51 VIRGINIA						
	55 WISCONSIN						
	88 KENTUCKY-INDIANA						
	99 NOT APPLICABLE						
RSCNTY	RESIDENCE COUNTY CODE [SEE ATTACHED LIST FOR COUNTY CODES] 999 NOT APPLICABLE	3	91	09999	00000	CODE	0
NOWRKER	NUMBER OF WORKERS IN HOUSEHOLD	2	94			NUMBER	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	MAX.	MIN.	VALUE DATA CATEGORY	IMP.DEC PLACES
	00 NO WORKERS						
	01 ONE WORKER						
	02 TWO WORKERS						
	03 THREE WORKERS						
	04 FOUR WORKERS						
	05 FIVE WORKERS						
	06 SIX WORKERS						
	07 SEVEN WORKERS						
	08 EIGHT WORKERS						
	09 NINE WORKERS						
	10 TEN WORKERS						
	11 ELEVEN WORKERS						
	12 TWELVE WORKERS						
	13 THIRTEEN WORKERS						
	14 FOURTEEN WORKERS						
	15 FIFTEEN WORKERS						
INTMO	MONTH OF INTERVIEW	2	96	00999	00000	CODE	0
	01 JANUARY						
	02 FEBRUARY						
	03 MARCH						
	04 APRIL						
	05 MAY						
	06 JUNE						
	07 JULY						
	08 AUGUST						
	09 SEPTEMBER						
	10 OCTOBER						
	11 NOVEMBER						
	12 DECEMBER						
RESPLNNO	RESPONDENT LINE NUMBER [HOUSEHOLD CHARACTERISTICS]	2	98	00999	00000	CODE	0
	98 NOT ANSWERED						
	99 OUT OF UNIVERSE						
H006	YEAR STRUCTURE BUILT	2	100	00999	00000	CODE	0
	YY YEAR IF AFTER APRIL 1, 1970						
	01 1969 - MARCH 31, 1970						
	02 1965 - 1968						
	03 1960 - 1964						
	04 1950 - 1959						
	05 1940 - 1949						
	06 1939 OR EARLIER						
H019	TENURE	1	102	00099	00000	CODE	0
	1 OWNED						
	2 COOPERATIVE						
	3 CONDOMINIUM						
	4 RENTED						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
H008	5 WITHOUT CASH RENT						
	TYPE OF LIVING QUARTERS	2	103	00999	00000	CODE	0
	01 HOUSE, APT. FLAT						
	02 UNIT IN NONTRANSIENT HOTEL,ETC						
	03 UNIT IN TRANSIENT HOTEL,ETC						
	04 UNIT IN ROOMING HOUSE						
	05 MOBILE HOME/ TRAILER.NO PERM. ROOM						
	06 MOBILE HOME/TRAILER WITH ROOM ADDED						
	07 UNIT NOT SPECIFIED ABOVE						
H012	USE OF TELEPHONE	1	105	00099	00000	CODE	0
	1 YES						
	2 NO						
H023	TYPE OF STRUCTURE	2	106	00999	00000	CODE	0
	01 MOBILE HOME, TRAILER						
	02 ONE UNIT, DETACHED						
	03 ONE UNIT, ATTACHED						
	04 2 UNITS						
	05 3 OR 4 UNITS						
	06 5 TO 9 UNITS						
	07 10 TO 19 UNITS						
	08 20 TO 49 UNITS						
	09 50 OR MORE UNITS						
H140	PUBLIC HOUSING PROJECT	1	108	00099	00000	CODE	0
	1 YES HOUSING PROJECT						
	2 NO HOUSING PROJECT						
	8 NOT ANSWERED						
	9 OUT OF UNIVERSE						
H141	GOVERNMENT SUBSIDIES OF RENT	1	109	00099	00000	CODE	0
	1 YES SUBSIDIZED						
	2 NO GOVT SUBSIDIES						
	8 NOT ANSWERED						
	9 OUT OF UNIVERSE						
H043	GARAGE OR CARPORT AVAILABLE	1	110	00099	00000	CODE	0
	1 YES						
	2 NO						
	8 NOT ANSWERED						
	9 OUT OF UNIVERSE						
H156	PARKING FACILITIES AVAILABLE	1	111	00099	00000	CODE	0
	1 YES, PARKING AVAILABLE						
	2 NO PARKING AVAILABLE						
	8 NOT ANSWERED						
	9 OUT OF UNIVERSE						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
H157	PARKING SPACE RENTED IN BUILDING 1 YES PARKING RENTED 2 NO PARKING NOT RENTED 9 OUT OF UNIVERSE	1	112	00099	00000	CODE	0
H158	MONTHLY COST OF PARKING 199 $199 OR MORE 998 NOT ANSWERED 999 OUT OF UNIVERSE	3	113			NUMBER	0
H159	RENT INCLUDES PARKING COST 1 YES INCLUDED IN RENT 2 NO PAID SEPARATELY 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	116	00099	00000	CODE	0
H160	PARKING SPACE NOT CONNECTED WITH BLDG 1 YES ANOTHER LOCATION 2 NO 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	117	00099	00000	CODE	0
H163	OWN SECOND HOME 1 YES OWN SECOND HOME 2 NO SECOND HOME	1	118	00099	00000	CODE	0
H164	NO. OF CARS IN HOUSEHOLD 1 NO CARS 2 1 CAR 3 2 CARS 4 3 CARS 5 4 OR MORE CARS	1	119	00099	00000	CODE	0
H165	NO. OF TRUCKS [LT 1 TON] 1 NO TRUCKS 2 1 TRUCK 3 2 OR MORE TRUCKS	1	120	00099	00000	CODE	0
H207	STREET OR HIGHWAY NOISE 1 YES STREET NOISE 2 NO STREET NOISE 3 NOISE. BOTHERSOME 4 NOISE. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	121	00099	00000	CODE	0
H208	HEAVY STREET TRAFFIC 1 YES STREET TRAFFIC 2 NO STREET TRAFFIC	1	122	00099	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
------	------------------	------	-----	------	-----	------	------
H209	3 TRAFFIC. BOTHERSOME 4 TRAFFIC. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	123	00099	00000	CODE	0
H210	STREETS NEED REPAIR 1 YES STREETS NEED REPAIR 2 NO. DO NOT NEED REPAIR 3 NEED REPAIR. BOTHERSOME 4 NEED REPAIR. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	123	00099	00000	CODE	0
H211	STREETS IMPASSABLE DUE TO SNOW, ETC 1 YES. STREETS IMPASSABLE 2 NO. NOT IMPASSABLE 3 IMPASSABLE. BOTHERSOME 4 IMPASSABLE. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	124	00099	00000	CODE	0
H212	INADEQUATE STREET LIGHTING 1 YES. INADEQUATE LIGHTING 2 NO INADEQUATE LIGHTING 3 INADEQUATE LIGHTING. BOTHERSOME 4 INADEQUATE LIGHTING. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	125	00099	00000	CODE	0
	NEIGHBORHOOD CRIME 1 YES. NEIGHBORHOOD CRIME 2 NO NEIGHBORHOOD CRIME 3 CRIME. BOTHERSOME 4 CRIME. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	126	00099	00000	CODE	0
H217	ODORS OR SMOKE 1 YES. ODORS. SMOKE, OR GAS 2 NO ODORS 3 ODORS. BOTHERSOME 4 ODORS. NO BOTHER 5 OBJECTS. WISHES TO MOVE 6 OBJECTS. DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	127	00099	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	INP.DEC PLACES
H218	AIRPLANE NOISE 1 YES AIRPLANE NOISE 2 NO AIRPLANE NOISE 3 NOISE, BOTHERSOME 4 NOISE, NO BOTHER 5 OBJECTS, WISHES TO MOVE 6 OBJECTS, DOES NOT WISH TO MOVE 8 NOT ANSWERED	1	128	00099	00000	CODE	0
H219	ADEQUATE PUBLIC TRANSPORTATION 1 YES. ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	129	00099	00000	CODE	0
H220	INADEQUATE TRANSPORTATION- WISH TO MOVE 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	130	00099	00000	CODE	0
H221	ADEQUATE SCHOOLS 1 YES. ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	131	00099	00000	CODE	0
H222	INADEQUATE SCHOOLS- WISH TO MOVE 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	132	00099	00000	CODE	0
H223	ADEQUATE SHOPPING 1 YES ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	133	00099	00000	CODE	0
H224	INADEQUATE SHOPPING- WISH TO MOVE 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	134	00099	00000	CODE	0
H225	ADEQUATE POLICE PROTECTION 1 YES. ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	135	00099	00000	CODE	0

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
H226	INADEQUATE POLICE PROTECTION 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	136	00099	00000	CODE	0
H227	ADEQUATE FIRE PROTECTION 1 YES. ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	137	00099	00000	CODE	0
H228	INADEQUATE FIRE PROTECTION 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	138	00099	00000	CODE	0
H229	ADEQUATE HEALTH CLINICS 1 YES. ADEQUATE 2 NO. INADEQUATE 3 DONT KNOW 8 NOT ANSWERED	1	139	00099	00000	CODE	0
H230	INADEQUATE HEALTH CLINICS 1 YES. WISHES TO MOVE 2 NO. DOES NOT WISH TO MOVE 8 NOT ANSWERED 9 OUT OF UNIVERSE	1	140	00099	00000	CODE	0
H231	NEIGHBORHOOD RATING 1 EXCELLENT 2 GOOD 3 FAIR 4 POOR 8 NOT ANSWERED	1	141	00099	00000	CODE	0
H240	LINE NUMBER OF FAMILY MEMBER 1 99 OUT OF UNIVERSE	2	142	00999	00000	CODE	0
H241	WAGE SALARY INCOME- PERSON 1	5	144			NUMBER	0
H242	LINE NO. OF PERSON 2 99 OUT OF UNIVERSE	2	149	00999	00000	CODE	0
H243	WAGE SALARY INCOME- PERSON 2	5	151			NUMBER	0
H244	LINE NO. OF PERSON 3 99 OUT OF UNIVERSE	2	156	00999	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
H245	WAGE SALARY INCOME- PERSON 3	5	158			NUMBER	0
H246	LINE NO. OF PERSON 4 / 99 OUT OF UNIVERSE	2	163	00999	00000	CODE	0
H247	WAGE SALARY INCOME- PERSON 4	5	165			NUMBER	0
H248	LINE NO. OF PERSON 5 / 99 OUT OF UNIVERSE	2	170	00999	00000	CODE	0
H249	WAGE SALARY INCOME- PERSON 5	5	172			NUMBER	0
H250	LINE NO. OF PERSON 6 IF MORE THAN 6 PERSONS SEE NEXT FIELD FOR AGGREGATE WAGE AND SALARY INCOME FOR THE REMAINING PERSONS / 97 7 OR MORE MEMBERS / 99 OUT OF UNIVERSE	2	177	00999	00000	CODE	0
H251	WAGE SALARY INCOME - PERSON 6 AGGREGATE IF MORE THAN 6 PERSONS 14 YEARS OLD AND OVER WITH WAGE INCOME	5	179			NUMBER	0
WAGE-SAL	WAGE AND SALARY INCOME [FAMILY]	5	184			NUMBER	0
H252	NONFARM SELF EMPLOYMENT INCOME (FAMILY)	6	189			NUMBER	0
H254	FARM SELF EMPLOYMENT INCOME (FAMILY)	6	195			NUMBER	0
H257	AMT. OF SOCIAL SECURITY INCOME	5	201			NUMBER	0
H265	AMOUNT- WELFARE INCOME	5	206			NUMBER	0
H2C7	AMOUNT UNEMPLOYMENT INCOME	5	211			NUMBER	0
H269	AMOUNT- WORKMENS COMPENSATION	5	216			NUMBER	0
H271	AMOUNT- GOVT PENSION	5	221			NUMBER	0
H273	AMOUNT-PRIVATE PENSIONS	5	226			NUMBER	0
H275	AMOUNT- VETERANS PAYMENTS	5	231			NUMBER	0
H281	AMOUNT - OTHER INCOME SOURCES	5	236			NUMBER	0
FAM-INC	TOTAL FAMILY INCOME	6	241			NUMBER	0
LNNHD	LINE NUMBER OF HEAD / 99 OUT OF UNIVERSE	2	247	00999	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	VALUE BEGIN	MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
H167	HEADS MAJOR MODE OF TRANSPORTATION	3	249	09999	00000	CODE	0
	101 TRUCK. DRIVES ALONE						
	102 TRUCK. SHARES DRIVING						
	103 TRUCK. DRIVES OTHERS						
	104 TRUCK. RIDES WITH SOMEONE ELSE						
	201 AUTO. DRIVES ALONE						
	202 AUTO. SHARES DRIVING						
	203 AUTO. DRIVES OTHERS						
	204 AUTO. RIDES WITH SOMEONE ELSE						
	005 WALKS ONLY						
	006 WORKS AT HOME						
	007 RAILROAD						
	008 SUBWAY OR ELEVATED						
	009 BUS OR STREETCAR						
	010 TAXICAB						
	011 MOTORCYCLE						
	012 OTHER MEANS						
	013 BICYCLE						
	999 OUT OF UNIVERSE						
H169	HEADS TIME FROM HOME TO WORK	3	252			NUMBER	0
	199 199 MINUTES OR MORE						
	999 OUT OF UNIVERSE						
H170	HEADS WORK DISTANCE [ONE WAY]	3	255			NUMBER	0
	000 LESS THAN 1 MILE						
	201 201 MILES OR MORE						
	999 OUT OF UNIVERSE						
H014	ETHNIC ORIGIN OF HEAD	2	258	00999	00000	CODE	0
	01 MEXICAN-AMERICAN						
	02 CHICANO						
	03 MEXICANO						
	04 MEXICAN						
	05 PUERTO RICAN						
	06 CUBAN						
	07 CENT OR SOUTH A'ER						
	08 OTHER SPANISH						
	09 OTHER						
H015	HIGHEST GRADE HEAD COMPLETED	2	260	00999	00000	CODE	0
	00 NEVER ATTENDED SCHOOL						
	01 KINDERGARTEN						
	02 FIRST						
	03 SECOND						
	04 THIRD						
	05 FOURTH						
	06 FIFTH						
	07 SIXTH						
	08 SEVENTH						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES

09 EIGHTH
10 NINTH
11 TENTH
12 ELEVENTH
13 TWELFTH
14 COLLEGE 1 YEAR
15 COLLEGE 2 YEARS
16 COLLEGE 3 YEARS
17 COLLEGE 4 YEARS
18 COLLEGE 5 YEARS
19 COLLEGE 6 OR MORE YEARS

H016   YEAR HEAD MOVED INTO UNIT   4   262   99999   00000   CODE   0
       MONTH, YEAR IF AFTER APRIL 1, 1970
MMYY
0001 1965- APRIL 1, 1970
0002 1960 - 1964
0003 1950 - 1959
0004 1949 OR EARLIER

H171   HEAD MOVED HERE LAST 12 MONTHS   1   266   00099   00000   CODE   0
1 YES
2 NO

H172   MAIN REASON MOVED IN LAST 12 MONTHS   2   267   00999   00000   CODE   0
01 JOB TRANSFER
02 ENTERED OR LEFT ARMED FORCES
03 RETIREMENT
04 NEW JOB / LOOKING FOR WORK
05 COMMUTING REASONS
06 TO ATTEND SCHOOL
07 OTHER EMPLOYMENT REASONS
08 NEEDED LARGER HOUSE OR APT
09 WIDOWED
10 SEPARATED
11 DIVORCED
12 MOVED NEARER RELATIVES
13 NEWLY MARRIED
14 FAMILY INCREASED
15 FAMILY DECREASED
16 WANTED OWN HOUSEHOLD
17 OTHER FAMILY REASONS
18 NEIGHBORHOOD OVERCROWDED
19 RACIAL/ETHNIC CHANGE IN NEIGHBORHOOD
20 WANTED BETTER NEIGHBORHOOD
21 WANTED TO OWN RESIDENCE
22 LOWER RENT OR LESS EXPENSIVE HOUSE
23 WANTED BETTER HOUSE
24 DISPLACED BY URBAN RENEWAL, ETC
25 DISPLACED BY PRIVATE ACTION
26 SCHOOLS

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	MAX. VALUE	MIN. VALUE	DATA CATEGORY	IMP.DEC PLACES
	27 WANTED TO RENT						
	28 MORE CONVENIENCES						
	29 NATURAL DISASTER						
	30 CHANGE CLIMATE						
	31 OTHER						
	98 NOT ANSWERED						
	99 OUT OF UNIVERSE						
RELHD	RELATIONSHIP TO HEAD	2	269	00999	00000	CODE	0
	11 HEAD						
AGEHD	AGE OF HEAD	2	271			NUMBER	0
	97 97 YEARS AND OVER						
MSTHD	MARITAL STATUS OF HEAD	1	273	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
RACHD	RACE OF HEAD	1	274	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
SEXHD	SEX OF HEAD	1	275	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
LNNO2	LINE NO. OF PERSON 02	2	276	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
RELC2	RELATIONSHIP TO HEAD. PERSON 02	2	278	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	IMP.DEC PLACES
AGE03	AGE OF PERSON 03	2	289			NUMBER	0
RELO3	RELATIONSHIP TO HEAD- PERSON 03	2	287	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
LNN03	LINE NO. OF PERSON 03	2	285	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
SEX02	SEX OF PERSON 02	1	284	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
RAC02	RACE OF PERSON 02	1	283	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
MST02	MARITAL STATUS- PERSON 02	1	282	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
AGE02	AGE OF PERSON 02	2	280			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
	CHILD [SUBFAMILY 4]						
	53						
	99 OUT OF UNIVERSE						

DATA SECTION

NAME	DESCRIPTIVE LABELS	VALUE	LENGTH	BEGIN	MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
MST03	MARITAL STATUS OF PERSON 03		1	291	00099	00000	CODE	0
	1 MARRIED							
	2 WIDOWED							
	3 DIVORCED							
	4 SEPARATED							
	5 NEVER MARRIED							
	9 OUT OF UNIVERSE							
	97 97 YEARS AND OVER							
	99 OUT OF UNIVERSE							
RAC03	RACE OF PERSON 03		1	292	00099	00000	CODE	0
	1 WHITE							
	2 BLACK							
	3 OTHER							
	9 OUT OF UNIVERSE							
SEX03	SEX OF PERSON 03		1	293	00099	00000	CODE	0
	1 MALE							
	2 FEMALE							
	9 OUT OF UNIVERSE							
LNN04	LINE NO. OF PERSON 04		2	294	00999	00000	CODE	0
	99 OUT OF UNIVERSE							
REL04	RELATIONSHIP TO HEAD- PERSON 04		2	296	00999	00000	CODE	0
	04 OTHER RELATIVE							
	05 PARTNER							
	06 OTHER NON-RELATIVE							
	12 WIFE							
	13 UNMARRIED CHILD							
	21 HEAD [SUBFAMILY 1]							
	22 WIFE [SUBFAMILY 1]							
	23 CHILD [SUBFAMILY 1]							
	31 HEAD [SUBFAMILY 2]							
	32 WIFE [SUBFAMILY 2]							
	33 CHILD [SUBFAMILY 2]							
	41 HEAD [SUBFAMILY 3]							
	42 WIFE [SUBFAMILY 3]							
	43 CHILD [SUBFAMILY 3]							
	51 HEAD [SUBFAMILY 4]							
	52 WIFE [SUBFAMILY 4]							
	53 CHILD [SUBFAMILY 4]							
	99 OUT OF UNIVERSE							
AGE04	AGE OF PERSON 04		2	298			NUMBER	0
	97 97 YEARS AND OVER							
	99 OUT OF UNIVERSE							
MST04	MARITAL STATUS OF PERSON 04		1	300	00099	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	MAX. VALUE	MIN.	DATA CATEGORY	IMP.DEC PLACES
RAC04	RACE OF PERSON 04	1	301	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX04	SEX OF PERSON 04	1	302	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN05	LINE NO. OF PERSON 05	2	303	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL05	RELATIONSHIP TO HEAD- PERSON 05	2	305	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE05	AGE OF PERSON 05	2	307			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST05	MARITAL STATUS OF PERSON 05	1	309	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
	5 NEVER MARRIED 9 OUT OF UNIVERSE						
RAC05	RACE OF PERSON 05 1 WHITE 2 BLACK 3 OTHER 9 OUT OF UNIVERSE	1	310	00099	00000	CODE	0
SEX05	SEX OF PERSON 05 1 MALE 2 FEMALE 9 OUT OF UNIVERSE	1	311	00099	00000	CODE	0
LNN06	LINE NO. OF PERSON 06 99 OUT OF UNIVERSE	2	312	00999	00000	CODE	0
REL06	RELATIONSHIP TO HEAD- PERSON 06 04 OTHER RELATIVE 05 PARTNER 06 OTHER NON-RELATIVE 12 WIFE 13 UNMARRIED CHILD 21 HEAD [SUBFAMILY 1] 22 WIFE [SUBFAMILY 1] 23 CHILD [SUBFAMILY 1] 31 HEAD [SUBFAMILY 2] 32 WIFE [SUBFAMILY 2] 33 CHILD [SUBFAMILY 2] 41 HEAD [SUBFAMILY 3] 42 WIFE [SUBFAMILY 3] 43 CHILD [SUBFAMILY 3] 51 HEAD [SUBFAMILY 4] 52 WIFE [SUBFAMILY 4] 53 CHILD [SUBFAMILY 4] 99 OUT OF UNIVERSE	2	314	00999	00000	CODE	0
AGE06	AGE OF PERSON 06 97 97 YEARS AND OVER 99 OUT OF UNIVERSE	2	316			NUMBER	0
MST06	MARITAL STATUS OF PERSON 06 1 MARRIED 2 WIDOWED 3 DIVORCED 4 SEPARATED 5 NEVER MARRIED 9 OUT OF UNIVERSE	1	318	00099	00000	CODE	0
RAC06	RACE OF PERSON 06	1	319	00099	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
SEX06	SEX OF PERSON 06 1 MALE 2 FEMALE 9 OUT OF UNIVERSE	1	320	00099	00000	CODE	0
LNN07	LINE NO. OF PERSON 07 99 OUT OF UNIVERSE	2	321	00999	00000	CODE	0
REL07	RELATIONSHIP TO HEAD- PERSON 07 04 OTHER RELATIVE 05 PARTNER 06 OTHER NON-RELATIVE 12 WIFE 13 UNMARRIED CHILD 21 HEAD [SUBFAMILY 1] 22 WIFE [SUBFAMILY 1] 23 CHILD [SUBFAMILY 1] 31 HEAD [SUBFAMILY 2] 32 WIFE [SUBFAMILY 2] 33 CHILD [SUBFAMILY 2] 41 HEAD [SUBFAMILY 3] 42 WIFE [SUBFAMILY 3] 43 CHILD [SUBFAMILY 3] 51 HEAD [SUBFAMILY 4] 52 WIFE [SUBFAMILY 4] 53 CHILD [SUBFAMILY 4] 99 OUT OF UNIVERSE	2	323	00999	00000	CODE	0
AGE07	AGE OF PERSON 07 97 97 YEARS AND OVER 99 OUT OF UNIVERSE	2	325			NUMBER	0
MST07	MARITAL STATUS OF PERSON 07 1 MARRIED 2 WIDOWED 3 DIVORCED 4 SEPARATED 5 NEVER MARRIED 9 OUT OF UNIVERSE	1	327	00099	00000	CODE	0
RAC07	RACE OF PERSON 07 1 WHITE 2 BLACK 3 OTHER 9 OUT OF UNIVERSE	1	328	00099	00000	CODE	0

(left-side column header as rotated)

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES

1 WHITE
2 BLACK
3 OTHER
9 OUT OF UNIVERSE

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
SEX07	SEX OF PERSON 07 1 MALE 2 FEMALE 9 OUT OF UNIVERSE	1	329	00099	00000	CODE	0
LNN08	LINE NO. OF PERSON 08 99 OUT OF UNIVERSE	2	330	00999	00000	CODE	0
REL08	RELATIONSHIP TO HEAD- PERSON 08 04 OTHER RELATIVE 05 PARTNER 06 OTHER NON-RELATIVE 12 WIFE 13 UNMARRIED CHILD 21 HEAD [SUBFAMILY 1] 22 WIFE [SUBFAMILY 1] 23 CHILD [SUBFAMILY 1] 31 HEAD [SUBFAMILY 2] 32 WIFE [SUBFAMILY 2] 33 CHILD [SUBFAMILY 2] 41 HEAD [SUBFAMILY 3] 42 WIFE [SUBFAMILY 3] 43 CHILD [SUBFAMILY 3] 51 HEAD [SUBFAMILY 4] 52 WIFE [SUBFAMILY 4] 53 CHILD [SUBFAMILY 4] 99 OUT OF UNIVERSE	2	332	00999	00000	CODE	0
AGE08	AGE OF PERSON 08 97 97 YEARS AND OVER 99 OUT OF UNIVERSE	2	334			NUMBER	0
MST08	MARITAL STATUS OF PERSON 08 1 MARRIED 2 WIDOWED 3 DIVORCED 4 SEPARATED 5 NEVER MARRIED 9 OUT OF UNIVERSE	1	336	00099	00000	CODE	0
RAC08	RACE OF PERSON 08 1 WHITE 2 BLACK 3 OTHER 9 OUT OF UNIVERSE	1	337	00099	00000	CODE	0
SEX08	SEX OF PERSON 08 1 MALE 2 FEMALE 9 OUT OF UNIVERSE	1	338	00099	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	IMP. DEC PLACES
LNN09	LINE NO. OF PERSON 09	2	339	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL09	RELATIONSHIP TO HEAD- PERSON 09	2	341	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE09	AGE OF PERSON 09	2	343			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST09	MARITAL STATUS OF PERSON 09	1	345	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC09	RACE OF PERSON 09	1	346	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX09	SEX OF PERSON 09	1	347	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN10	LINE NO. OF PERSON 10	2	348	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL10	RELATIONSHIP TO HEAD- PERSON 10	2	350	00999	00000	CODE	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE10	AGE OF PERSON 10	2	352			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST10	MARITAL STATUS OF PERSON 10	1	354	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC10	RACE OF PERSON 10	1	355	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX10	SEX OF PERSON 10	1	356	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN11	LINE NO. OF PERSON 11	2	357	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL11	RELATIONSHIP TO HEAD- PERSON 11	2	359	00999	0000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						

DATA SECTION

NAME	DESCRIPTIVE LABELS	VALUE LENGTH	BEGIN	MAX.	MIN.	DATA CATEGORY	INP.DEC PLACES
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE11	AGE OF PERSON 11	2	361			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST11	MARITAL STATUS OF PERSON 11	1	363	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC11	RACE OF PERSON 11	1	364	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX11	SEX OF PERSON 11	1	365	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN12	LINE NO. OF PERSON 12	2	366	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL12	RELATIONSHIP TO HEAD- PERSON 12	2	368	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE12	AGE OF PERSON 12	2	370			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST12	MARITAL STATUS OF PERSON 12	1	372	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC12	RACE OF PERSON 12	1	373	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX12	SEX OF PERSON 12	1	374	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN13	LINE NO. OF PERSON 13	2	375	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL13	RELATIONSHIP TO HEAD- PERSON 13	2	377	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	VALUE MIN.	DATA CATEGORY	IMP.DEC PLACES
AGE13	AGE OF PERSON 13	2	379			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST13	MARITAL STATUS OF PERSON 13	1	381	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC13	RACE OF PERSON 13	1	382	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX13	SEX OF PERSON 13	1	383	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN14	LINE NO. OF PERSON 14	2	384	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL14	RELATIONSHIP TO HEAD- PERSON 14	2	386	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE14	AGE OF PERSON 14	2	388			NUMBER	0
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST14	MARITAL STATUS OF PERSON 14	1	390	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC14	RACE OF PERSON 14	1	391	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX14	SEX OF PERSON 14	1	392	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
LNN15	LINE NO. OF PERSON 15	2	393	00999	00000	CODE	0
	99 OUT OF UNIVERSE						
REL15	RELATIONSHIP TO HEAD- PERSON 15	2	395	00999	00000	CODE	0
	04 OTHER RELATIVE						
	05 PARTNER						
	06 OTHER NON-RELATIVE						
	12 WIFE						
	13 UNMARRIED CHILD						
	21 HEAD [SUBFAMILY 1]						
	22 WIFE [SUBFAMILY 1]						
	23 CHILD [SUBFAMILY 1]						
	31 HEAD [SUBFAMILY 2]						
	32 WIFE [SUBFAMILY 2]						
	33 CHILD [SUBFAMILY 2]						
	41 HEAD [SUBFAMILY 3]						
	42 WIFE [SUBFAMILY 3]						
	43 CHILD [SUBFAMILY 3]						
	51 HEAD [SUBFAMILY 4]						
	52 WIFE [SUBFAMILY 4]						
	53 CHILD [SUBFAMILY 4]						
	99 OUT OF UNIVERSE						
AGE15	AGE OF PERSON 15	2	397			NUMBER	0

DATA SECTION

NAME	DESCRIPTIVE LABELS	LENGTH	BEGIN	VALUE MAX.	MIN.	DATA CATEGORY	IMP.DEC PLACES
	97 97 YEARS AND OVER						
	99 OUT OF UNIVERSE						
MST15	MARITAL STATUS OF PERSON 15	1	399	00099	00000	CODE	0
	1 MARRIED						
	2 WIDOWED						
	3 DIVORCED						
	4 SEPARATED						
	5 NEVER MARRIED						
	9 OUT OF UNIVERSE						
RAC15	RACE OF PERSON 15	1	400	00099	00000	CODE	0
	1 WHITE						
	2 BLACK						
	3 OTHER						
	9 OUT OF UNIVERSE						
SEX15	SEX OF PERSON 15	1	401	00099	00000	CODE	0
	1 MALE						
	2 FEMALE						
	9 OUT OF UNIVERSE						
HHMEM	NUMBER OF PERSONS IN HOUSEHOLD	2	402			NUMBER	0
	19 19 OR MORE PERSONS						

SOURCE AND RELIABILITY STATEMENT

SAMPLE DESIGN

The DOT Travel-to-Work Supplement and the Annual Housing Survey

The DOT Travel-to-Work Supplement data are based on interviews completed during the period April 1975 through March 1976 in 21 SMSA's as part of the enumeration for the Year II Annual Housing Survey (AHS) sponsored by the Department of Housing and Urban Development. In the largest SMSA from each of the four geographic regions, the survey sample consisted of about 15,000 housing units evenly divided between the central city or cities and the balance of the SMSA. For the remaining 17 SMSA's, the survey was based on a sample of about 5,000 housing units distributed between the central city or cities and the balance of the SMSA in proportion to the distribution of total housing units in each of these sectors.

The following SMSA's, defined as of the 1970 census, were included in the 1975-1976 AHS enumeration:

Atlanta, Ga. *	Paterson-Clifton-Passaic, N.J.
Chicago, Ill. *	Philadelphia, Pa.-N.J.*
Cincinnati, Ohio-Ky.-Ind.	Portland, Oreg.-Wash.
Colorado Springs, Colo.	Rochester, N.Y.
Columbus, Ohio	San Antonio, Tex.
Hartford, Conn.	San Bernardino-Riverside-Ontario, Calif.
Kansas City, Mo.-Kan.	San Diego, Calif.
Miami, Fla.	San Francisco-Oakland, Calif. *
Milwaukee, Wis.	Springfield-Chicopee-Holyoke, Mass.-Conn.
New Orleans, La.	Madison, Wis.
Newport News-Hampton, Va.	

*Sample size of 15,000 housing units; all others are 5,000 housing units.

The number of housing units in each SMSA that were eligible for interview in the AHS is given in the first column of table A. Of these sample units, a number of interviews were not obtained (table A, column 2) because, for occupied sample units, the occupants were not at home after repeated visits or were unavailable for some other reason; or, for vacant units, no informed respondent could be found after repeated visits. In addition to units eligible for interview, there were other units that were visited but were found not to be eligible for interview because they were condemned, unfit, demolished, converted to group quarters use, etc., (table A, column 3). The number of persons 14 years and older in the interviewed households of each SMSA are given in the fourth column of table A. The number of persons 14 years and older who did not respond to the DOT Travel-to-Work Supplement is given in the last column of table A.

Table A. Number of Housing Units and Persons 14 Years and Older, Interviewed and Not Interviewed, for 21 SMSA's, 1975-76

SMSA	Housing Units Eligible for Interview	Noninterviewed Housing Units	Housing Units Found to be Ineligible for Interview	Persons 14+ in Interviewed Housing Units	Persons 14+ Not Responding to DOT Supplement
Atlanta	13,518	570	1,484	24,612	151
Chicago	14,442	741	1,051	29,117	315
Cincinnati	4,721	173	408	9,491	57
Colorado Springs	4,776	135	428	8,866	140
Columbus	4,749	203	464	9,028	65
Hartford	4,926	213	322	10,337	41
Kansas City	4,684	210	472	8,848	44
Madison	4,899	129	495	9,756	17
Miami	4,537	216	473	8,248	21
Milwaukee	4,931	204	298	10,317	38
New Orleans	4,746	231	422	9,104	45
Newport News-	4,105	118	492	8,235	19
Paterson-	4,981	253	193	10,976	39
Philadelphia	14,447	863	1,203	29,397	207
Portland	4,875	157	363	9,264	46
Rochester	4,845	205	508	9,843	26
San Antonio	4,883	170	421	9,802	26
San Bernardino-	4,963	241	347	8,515	36
San Diego	4,556	212	352	8,542	68
San Francisco-	14,523	861	934	26,135	359
Springfield-	5,239	167	504	10,629	40

Selection of the AHS-SMSA sample   The sample for the SMSA's which are 100 percent permit issuing was selected from two sample frames: units enumerated in the 1970 Census of Population and Housing in areas under the jurisdiction of permit-issuing offices (the permit-issuing universe) and units constructed in permit-issuing areas since the 1970 census (the new construction universe). In addition, the sample for those SMSA's which are not 100 percent permit-issuing included a sample selected from a third frame--those units located in areas not under the jurisdiction of permit-issuing offices (the non-permit universe). The following table indicates which SMSA's are 100 percent issuing and which contain a sample from the non-permit universe.

100% Permit-Issuing SMSA's	SMSA's with a Sample from the Non-Permit Universe
Hartford, Conn.	Atlanta, Ga.
Miami, Fla.	Chicago, Ill.
Newport News-Hampton, Va.	Cincinnati, Ohio-Ky.-Ind.
Paterson-Clifton-Passaic, N.J.	Colorado Springs, Colo.
	Columbus, Ohio
San Bernardino-Riverside-Ontario, Calif.	Kansas City, Mo.-Kan.
	Madison, Wis.
San Diego, Calif.	Milwaukee, Wis.
San Francisco-Oakland, Calif.	New Orleans, La.
	Philadelphia, Pa.-N.J.
	Portland, Oreg.-Wash.
	Rochester, N.Y.
	San Antonio, Tex.
	Springfield-Chicopee-Holyoke, Mass.-Conn.

The major portion of the sample in each SMSA was selected from a file which represented the 20-percent sample of units enumerated in permit-issuing areas of the SMSA during the 1970 Census of Housing and Population. This file contained records for occupied housing units, vacant housing units, and units in certain special places or group quarters. Sampling operations were done separately for the special place and group quarters records and for the occupied and vacant housing unit records. Before the sample was selected from the occupied and vacant records, the occupied housing unit records were stratified by race of head (non-Black/Black) and the vacant records were stratified into four categories pertaining to the value or rent associated with the vacant housing units. The occupied housing unit records were further stratified such that each unit was assigned to one of 50 strata according to its tenure/family size/household income category as illustrated by the following table:

Household Income	Tenure									
	Owner					Renter				
	Family Size					Family Size				
	1	2	3	4	5+	1	2	3	4	5+
Under $3,000 $3,000-$5,999 $6,000-$9,999 $10,000-$14,999 $15,000 and Over										

Thus, for each SMSA, the occupied housing unit records from this universe were assigned to one of 100 strata for either the central city or for the balance, and the vacant housing unit records were assigned to one of the four vacant strata for either the central city or for the balance of the SMSA. A sample of housing unit records was then selected in such a way as to produce one-half of the desired sample size. However, the housing unit record adjacent to each of the above sample housing unit records was also selected to be in sample thereby insuring the necessary designated sample size.

Before the sample was selected from the group quarters and special place records, the records were stratified by census tract and census enumeration district (ED) within the central city and within the balance of the SMSA. A sample of special place records was then selected in such a way as to produce one-quarter of the desired sample size. However, at the time of enumeration the units at each of the sample special places were listed and subsampled at a rate so as to produce an expected four sample units, thereby insuring the necessary designated sample size.

The second frame from which each SMSA sample was selected was a list of new construction building permits issued since 1970 (i.e., the new construction universe). The sample selection from the list of new construction building permits was an independent operation within this SMSA. Prior to sample selection, the list of permits was chronologically stratified by the date the permits were issued, and clusters of an expected four (usually adjacent) housing units were formed. These clusters were then sampled for inclusion at the overall sampling rate.

For those SMSA's which are not 100 percent permit-issuing, the remainder of the AHS sample was selected from a frame consisting of areas not under the jurisdiction of permit-issuing offices (i.e., the non-permit universe). The first step in the sampling operation for the universe was the selection, using the overall sampling rate, of a sample of census enumeration districts

within these areas. Prior to this sample selection, the ED's were stratified by census tract within the central city and within the balance of the SMSA. The probability of selection of an ED was proprotionate to the following measure of size:

$$\frac{\text{Number of housing units in 1970 census ED} + \dfrac{\text{Group quarters population in 1970 census ED}}{3}}{4}$$

The sample ED's were then divided into segments, i.e., small land areas with well-defined boundaries having an expected size of four, or a multiple of four, housing units. At the time of enumeration, those segments that did not have an expected size of four were further subdivided to produce an expected four sample housing units.

The next step was the selection of one of these segments within each sample ED. In the sample segments, all units in existence at the time of interview are in sample. Thus, units enumerated in the 1970 census as well as units built since the 1970 census are included.

ESTIMATION

AHS-SMSA Housing Inventory Estimation Procedure

The AHS estimates of characteristics of the 1975 housing inventory employed a three-stage ratio estimation procedure. However, the third stage was employed in only three SMSA's. Initially, the basic weight (i.e., the inverse of the probability of selection) for each interviewed sample housing unit was adjusted to account for the noninterviews previously mentioned. The noninterview adjustment factor was equal to the following ratio:

$$\frac{\text{Weighted count of interviewed housing units} + \text{Weighted count of noninterviewed housing units}}{\text{Weighted count of interviewed housing units}}$$

Within each sector (central city and balance) of each SMSA, a noninterview factor was computed separately for 54 noninterview cells for sample housing units from the permit-issuing universe (where the cells consisted of one or more of the different strata used in the stratification of the universe as previously illustrated), one noninterview cell for new construction sample housing units and one noninterview cell for the non-permit universe (if applicable). Sample housing units from the non-permit universe identified as being built April 1, 1970 or later were considered as new construction units for the purpose of the noninterview adjustment.

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The first-stage ratio estimation procedure was then employed for all sample housing units from the permit-issuing universe. This factor was computed separately for all sample housing units within each permit-issuing universe noninterview cell mentioned above. The ratio estimate factor for each cell was equal to the following:

$$\frac{\text{AHS sample estimate of 1970 housing units from the cell}}{\text{1970 census count of housing units from permit-issuing universe in a cell}}$$

For each SMSA the numerators of the ratios were obtained from the 1970 Census of Population and Housing 20-percent file of units enumerated in areas under the jurisdiction of permit-issuing offices. The denominators of the ratios were obtained from weighted estimates of all AHS sample units within the corresponding ratio estimate categories using the existing weight (i.e., the basic weight times the noninterview factor). The computed first-stage ratio estimation factor was then applied to the existing weight for each sample unit within the corresponding first-stage ratio estimation category.

The effect of this ratio estimation procedure was to somewhat reduce the variation in sample size for strata used in the sample selection of the permit-issuing universe. Ordinarily, this would have been controlled by sampling within the strata during the sample selection process. However, prior to the AHS sample selection within each SMSA, units already selected for other Census Bureau surveys were deleted from the permit-issuing universe. Thus, some variation in sample size was introduced during the AHS sample selection process.

The second-stage ratio estimation procedure was employed for all sample units that were conventional new construction units (i.e., conventional units built after April 1970), new mobile homes (i.e., mobile homes units built after April 1970), or "other additions" units (i.e., units added by conversion of 1970 units or by other sources). This procedure was designed to adjust the AHS sample estimates of these types of units to independently derived current estimates. These independent estimates were considered to be the best estimates available for these types of units. This adjustment was necessary to correct for known deficiencies in the AHS sample with regard to representation of these units (see the section on nonsampling error). The second-stage ratio estimate factors were computed separately for each of the cells in the table below using the following formula:

$$\frac{\text{October 1975 independent estimate of housing units in that cell for the SMSA}}{\text{AHS sample estimates of housing units in that cell for the SMSA}}$$

Second-Stage Ratio Estimate Cells

Conventional New Construction Units	
New Mobile Homes	
"Other Additions"	

The numerators of the ratios were derived by applying the following factors: (1) For the "conventional new construction units" cell, either a national trend for missed conventional new construction was applied to the 1968 and 1969 building permits issued in the SMSA, or the missed conventional new construction was estimated from the Survey of Construction (SOC). (The table that follows this paragraph indicates the procedure used to estimate the missing conventional new construction for each SMSA.); (2) for the "new mobile homes" cell, a 1970 census relationship between total new construction and new mobile homes that existed in this SMSA for the 1965-1970 period was applied; and

(3) for the "other additions" cell, the "other additions" rate from SCARF [1] was applied.

SMSA's Employing the SOC Estimate of Missed Conventional New Construction	SMSA's Employing the National Trend for Missed Conventional New Construction
Atlanta, Ga. Chicago, Ill. Cincinnati, Ohio-Ky.-Ind. Columbus, Ohio Kansas City, Mo.-Kan. Miami, Fla. Milwaukee, Wis. Philadelphia, Pa.-N.J. Portland, Oreg.-Wash. San Diego, Calif. San Francisco-Oakland, Calif.	Colorado Springs, Colo. Hartford, Conn. Madison, Wis. New Orleans, La. Newport News-Hampton, Va. Paterson-Clifton-Passaic, N.J. Rochester, N.Y. San Antonio, Tex. San Bernardino-Riverside-Ontario, Calif. Springfield-Chicopee-Holyoke, Mass.-Conn.

The denominators of the ratios were obtained from the weighted estimates for the AHS sample units within each cell, using the existing weight after the first-stage ratio estimation procedure. The computed second-stage ratio estimate factor was then applied to the existing weight for each sample unit in the corresponding second-stage ratio estimation category.

For some Year II SMSA's (i.e., Colorado Springs, Colo.; Miami, Fla. and San Diego, Calif.) a third-stage ratio estimation procedure was also employed. This procedure involved the ratio estimation of the AHS weighted sample estimate of the October 1975 housing inventory to an independent estimate of the SMSA's October 1975 housing inventory. This ratio estimate factor equaled the following:

$$\frac{\text{Independent estimate of the October 1975 housing inventory for the SMSA}}{\text{AHS sample estimate of the housing inventory}}$$

---

[1] SCARF denotes the Survey of Components of Change and Residential Finance, a survey conducted in 1957-1959 by the Census Bureau.

The numerator of the ratio was derived by using the 1970 census estimate of total housing units for the SMSA in conjunction with the estimate of the change in the housing inventory since the census. The estimate of change was based on either administrative records from utility companies, or when utility data were not available, on estimates of new construction permits and post-census demolition data. The denominator of that ratio was obtained from the weighted estimate of AHS sample units, using the existing weight after the second-stage ratio estimation procedure. The computed third-stage ratio estimation factor was then applied to the existing weight for each sample unit and the resulting product was used as the final weight for tabulation purposes.

The effect of the third-stage ratio estimation procedure, as well as the overall estimation procedure, was to reduce the sampling error for most statistics below what would have been obtained by simply weighting the results of the sample by the inverse of the probability of selection. Since the housing population of the sample differed somewhat by chance from the SMSA as a whole, it can be expected that the sample estimates will be improved when the sample housing population or different portions of it, are brought into agreement with known estimates of the SMSA housing population.

The third-stage ratio estimation procedure was not employed in all Year II SMSA's since the reliability of the independent estimate varied by SMSA, depending on the completeness of the utility data or the permit-demolition data. The independent estimates were only employed in SMSA's where the estimated relative bias was thought to be low enough (i.e., three percent or less over a ten year period) to preclude the possibility of doing more harm than good to the survey results. A measure of the relative bias of the independent estimate was available based on a comparison between the 1970 census estimate of the April 1970 housing inventory and the April 1970 independent estimate of the housing inventory generated from the procedure used to produce the October 1975 independent estimates. In some SMSA's, the measure of the relative bias of the independent estimate was less than three percent but the independent estimate was still not employed, since there was evidence that suggested that the procedure for generating the independent estimates was producing substantial overestimates for these SMSA's.

<u>DOT Supplement Adjustments</u>   For the DOT Supplement, the weight resulting
from the AHS-SMSA estimation procedure up through the first-stage adjustment
described above was adjusted to account for persons in households that were
interviewed for AHS-SMSA who did not respond to the travel-to-work section
of the questionnaire. This noninterview adjustment factor was calculated
separately for each sector of each SMSA. Within each sector of each SMSA,
a noninterview factor was computed separately for sex, age, and marital
status categories. The following formula was used to calculate the non-
interview adjustment factor for each noninterview category:

Weighted estimate of persons in the   Weighted estimate of persons
noninterview category who were   in the noninterview category
interviewed for the DOT Supplement +   who were not interviewed for
in households that were interviewed   the DOT Supplement in households
for the AHS-SMSA   that were interviewed for the -
                                             AHS-SMSA

Weighted estimate of persons in the noninterview category who were
interviewed for the DOT Supplement in households that were interviewed
for the AHS-SMSA

The final adjustment for persons interviewed for the DOT Supplement was an
additional ratio estimation procedure. This procedure was designed to adjust
the AHS-SMSA sample estimate of persons 14 years and older in each SMSA to
an independently derived current estimate of that same population group. In
SMSA's where there was no evidence of differential undercoverage of persons
within the sectors, the sample estimate of persons 14+ in the SMSA was
adjusted to an independently derived estimate of persons 14+ in the SMSA.
For SMSA's where there was evidence of differential undercoverage within the
sector, this ratio estimation was performed separately by central city and
balance of the SMSA. The factor used for the ratio estimation procedure
was calculated as follows:

Independent estimate of persons 14+ in the SMSA (or sector)
_____

Sample estimate of persons 14+ in the SMSA (or sector)

The numerator of this ratio was based on the Census Bureau's estimates of
population 14+ as of October 1, 1975. The denominator of this ratio was
obtained from the weighted estimate of persons interviewed for the DOT
Supplement, using the existing weight after the DOT Supplement noninterview
adjustment had been applied.

The following table shows which person ratio estimate formula was used for each SMSA:

SMSA's for which the person ratio estimate factors were calculated separately by central city and balance	SMSA's for which the person ratio estimate factor was calculated for the entire SMSA

Atlanta, Ga.
Cincinnati, Ohio-Ky.-Ind.
Chicago, Ill.
Madison, Wis.
Miami, Fla.
Milwaukee, Wis.
New Orleans, La.
Paterson-Clifton-Passaic,
  N.J.
Philadelphia, Pa.-N.J.
Rochester, N.Y.
San Diego, Calif.
Springfield-Chicopee-Holyoke,
  Mass.-Conn.
	Columbus, Ohio
	Colorado Springs, Colo.
	Hartford, Conn.
	Kansas City, Mo.-Kans.
	Newport News-Hampton, Va.
	Portland, Oreg.-Wash.
	San Antonio, Tex.
	San Bernardino-Riverside-
	  Ontario, Calif.
	San Francisco-Oakland, Calif.

The computed ratio estimate was then applied to the existing weight for each person interviewed for the DOT Supplement. The weight that resulted from the application of this final adjustment was the tabulation weight utilized to produce final tabulations.

The effect of this person ratio estimation, as well as the overall estimation procedure, was to reduce the sampling error for most statistics below what would have been obtained by simply weighting the results of the sample by the inverse of the probability of selection. Since the population 14 years and older of the sample differed somewhat by chance from the actual population in each city, SMSA balance, or SMSA as a whole, it can be expected that the sample estimates will be improved when the sample population is brought into agreement with known independent estimates of the actual population.

Also, in sample survey enumeration, as in a complete census, certain segments of the population tend to be underrepresented. This underrepresentation results from the fact that the sample frame was incomplete (see section on nonsampling error) and that it was not possible to identify and/or interview all people who should have been interviewed within sample housing units. Methods employed in this estimation procedure, the ratio estimations and noninterview adjustments, are attempts to adjust for this underrepresentation by assuming that the travel-to-work characteristics of persons missed during enumeration or persons who were noninterviews for this survey are similar to the characteristics of persons with the same demographic characteristics who were interviewed.

RELIABILITY OF THE DATA

There are two types of possible errors associated with data from sample surveys: sampling and nonsampling errors. The following is a description of the sampling and nonsampling errors associated with the DOT Travel-to-Work Supplement and AHS-SMSA estimates.

Nonsampling Errors

In general, nonsampling errors can be attributed to many sources: inability to obtain information about all cases, definitional difficulties, differences in the interpretation of questions, inability or unwillingness to provide correct information on the part of respondents, mistakes in recording or coding the data, and other errors of collection, response, processing, coverage, and estimation for missing data.

The DOT Travel-to-Work Supplement   One possible source of bias in the DOT Travel-to-Work Supplement data is proxy interviewing. That is, responses for a particular worker may have been given by someone else who is not as knowledgeable as the worker himself. For example, the person available for the interview may not know how long it takes the reference person (worker) to travel to work or whether or not the principal means of transportation to work is satisfactory to the worker. Although it is known that biases due to proxy interviewing, as well as other nonsampling errors, could exist in the DOT Travel-to-Work Supplement, the magnitude of these biases is unknown.

Reinterview Program   No reinterview program was undertaken for the DOT Travel-to-Work Supplement. However, for the 1975 AHS-SMSA sample, a study was conducted to obtain a measurement of some of the components of the nonsampling error associated with the AHS estimates. Results of this study may be a useful indicator of the accuracy to be expected in the travel-to-work data which was collected as a supplement to the AHS-SMSA data. A reinterview program was conducted for a sample of the AHS households. These households were revisited and answers to some of the questions on the AHS questionnaire were obtained again. The original interview and the reinterview were assumed to be two independent readings and, thus, were the basis for the measurement of the accuracy of the AHS data collected from enumerated households.

As part of the reinterview, a check was made at each of these households to determine if the following was done during the original interview:

1. The correct unit was visited.
2. The correct number of housing units were interviewed at that address.
3. The correct information on "Year Built" was obtained.
4. The correct information on "Tenure" was obtained.
5. The correct information on "Household Composition" was obtained.
6. The correct information on "Type of Housing Unit" was obtained.
7. The correct information on "Occupancy Status" was obtained.

This check was made for interviewer evaluation and control. That is, tolerance limits were derived to determine which interviewers passed or failed this reinterview with regard to the above items. The results of this study are presented in the following Census Bureau memorandum, "Response Error in the Annual Housing Survey Data - Year II SMSA Sample".

Some of the results of this study are presented below (note that these results are based on the reinterviews across all the SMSA's that were part of the 1975-76 sample and not specifically for any SMSA):

1. "The results indicate that the interviewers are doing a good job. From a total of 207 interviewers checked, ten failed in classification checks, seven in household composition, and two in content reinterview".

2. "Of the non-attitudinal items which had enough data to compute reliable measures of response error, approximately 55 percent of these items had low levels of inconsistency in responses and about 45 percent had moderate levels of inconsistency in responses."

3. "For the attitudinal items, approximately 60 percent of the indices showed low levels of inconsistency when reconciled, i.e., after the question is answered in the reinterview, the enumerator presents the previous response and then asks the respondent to decide upon the best answer. The remaining items showed moderate levels of inconsistent response."

4. "When no reconciliation was done for these six attitudinal items, about half of the items showed moderate levels of inconsistency, 30 percent were in the low level and 20 percent were in the high inconsistency level."

The range for evaluating inconsistency is from 0-100. "The rule of thumb is that indices below 20 are low, indices from 20-50 are moderate, indicating that there is some problem with inconsistent reporting, and those over 50 are high, indicating that improvements are needed in the method used to collect these data or that the category concepts themselves are ambiguous.

The results of this study were based on sample data so there is sampling error associated with these estimates of nonsampling error. Therefore, the possibility of such errors should be taken into account when considering the results of this study.

<u>Coverage errors</u>   With respect to errors of coverage and estimation for missing data, it is believed that the AHS new construction sample had deficiencies with regard to the representation of both conventional new construction and new mobile homes (and trailers) in permit-issuing areas. During the sampling of building permits, only those issued January 1, 1970 or later were eligible to be sampled to represent conventional new construction in permit-issuing areas in the SMSA's. It had been assumed that units with permits issued prior to 1970 would have been completed by the time of the 1970 census (i.e., April 1970), and therefore, would have been represented in the sample selected from 1970 census units. However, it has been estimated that, nationally, there were about 600,000 conventional new construction units built after April 1970 whose permits were issued prior to January 1970 (most of which were issued in 1968 and 1969). Although it is not known exactly, an estimate of the number of conventional new construction units in each SMSA that had permits issued prior to January 1970, and therefore, were missed by the 1975 AHS-SMSA survey, is given in the first column of table B.

In addition, unlike the procedure for conventional new construction, there is no sampling procedure specifically for new mobile homes (and trailers) in permit-issuing areas. However, new mobile homes in permit-issuing areas do come into sample if the mobile homes are located in mobile home parks, identified as such in the 1970 census. Nonetheless, new mobile homes in permit-issuing areas that are located in mobile home parks, not in existence at the time of the 1970 census or not identified as such in the 1970 census, have no chance of coming into the AHS sample. Although it is not known exactly, the estimated number of new mobile homes in permit-issuing areas that were missed by the 1975 AHS-SMSA survey in each SMSA is given in the last column of table B. Finally, it is felt that deficiencies also exist in ED's where area sampling methods are used. As before, it had been assumed that all units located inside these ED's would be represented in the sample. But the 1975 AHS sample has been estimated to miss as much as two percent of all housing units in ED's where area sampling methods are used because these units are not listed during the canvassing.

Therefore, all persons 14 years and older who live in the above "missing" housing units or who live in enumerated housing units but were not detected by the enumerators had no chance for enumeration in the DOT Travel-to-Work Supplement. The person ratio estimation corrects for these deficiencies with respect to the count of persons 14+ in each SMSA. Likewise, the second stage ratio estimation was employed to reduce the effect of the these deficiencies, although some bias in AHS data still exists.

Table B. Estimates of the Number of Housing Units Missed by the
1975-76 Annual Housing Survey, for 21 SMSA's

SMSA	Estimated Conventional New Construction Units Missed by 1975 AHS-SMSA Survey	Estimated New Mobile Homes Missed by 1975 AHS-SMSA Survey
Atlanta	10,100	5,200
Chicago	34,400	4,800
Cincinnati	2,300	1,700
Colorado Springs	1,800	1,900
Columbus	3,700	1,800
Hartford	4,700	300
Kansas City	4,700	1,200
Madison	1,500	500
Miami	17,100	5,300
Milwaukee	4,000	1,000
New Orleans	3,500	1,800
Newport News-	1,400	800
Paterson-	2,100	0
Philadelphia	18,800	2,200
Portland	5,100	4,400
Rochester	2,800	700
San Antonio	2,900	400
San Bernardino-	3,100	10,300
San Diego	8,900	13,400
San Francisco-	7,200	2,300
Springfield-	1,500	300

Rounding errors   With respect to errors associated with processing, the
rounding of estimates introduces another source of error in the data, the
severity of which depends on the statistic being measured. The effect of
rounding is significant relative to the sampling error only for small
percentages and medians derived from relatively large bases (e.g., median
number of workers per household or median distance traveled to work).

This means that confidence intervals formed from the standard errors given may be distorted, and this should be taken into account when considering the results of the survey.

Sampling errors   The particular sample used for this survey is one of a large number of possible samples of the same size that could have been selected using the same sample design. Even if the same schedules, instructions, and enumerators were used, estimates from each of the different samples would differ from each other. The deviation of a sample estimate from the average of all possible samples is defined as the sampling error. The standard error of a survey estimate attempts to provide a measure of this variation among the estimates from the possible samples and, thus, is a measure of the precision with which an estimate from a sample approximates the average result of all possible samples.

As calculated for this survey, the standard error also partially measures the variation in the estimates due to response and enumerator errors (nonsampling errors), but it does not measure, as such, any systematic biases in the data. Therefore, the accuracy of the estimate depends on both the sampling and nonsampling error measured by the standard error, biases, and some additional nonsampling errors not measured by the standard error.

The sample estimate and its estimated standard error enable the user to construct interval estimates in which the interval includes the average result of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions, and an estimate and its estimated standard error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.

2. Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average result of all possible samples.

3. Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples.

For very small estimates the lower limit of the confidence interval may be negative. In this case, a better approximation to the true interval estimate can be achieved by restricting the interval estimate to positive values, that is, by changing the lower limit of the interval estimate to zero.

The average result of all possible samples either is or is not contained in any particular computed interval. However, for a particular sample, one can say with specified confidence that the average result of all possible samples is included in the constructed interval.

The figures presented at the end of this appendix are approximations to the standard errors of various estimates for each SMSA. In order to derive standard errors that would be applicable to a wide variety of items and also could be prepared at a moderate cost, a number of approximations were required. As a result, the tables of standard errors provide an indication of the order of magnitude of the standard errors rather than precise standard errors for any specific item.

Tables presented at the end of this appendix contain standard errors applicable to estimates of housing characteristics and travel-to-work characteristics of persons 14 years and older who were employed at the time of the 1975-76 AHS-SMSA survey. Tables I and II present standard errors for estimated levels of housing characteristics, while tables III through VI present standard errors for estimated levels of travel-to-work characteristics. Tables VIII and IX present standard errors for estimated percentages for housing and travel-to-work characteristics, respectively. The figures given in tables VIII and IX cannot be used without applying the factors shown in table VII. Included in these tables are estimates of standard errors for estimates of zero and zero percent. These estimates of standard errors are considered as over-estimates of the true standard errors and should be used primarily for construction of confidence intervals for characteristics when an estimate of zero is obtained.

For ratios, 100 x/y, where x is not a subclass of y, the percentage tables for each SMSA underestimate the standard error of the ratio when there is little or no correlation between x and y. For this type of ratio, a better approximation of the standard error may be obtained by letting the standard error of the ratio be approximately equal to:

$$(100) \ \frac{x}{y} \sqrt{\left(\frac{\sigma_x}{x}\right)^2 + \left(\frac{\sigma_y}{y}\right)^2}$$

where: x = the numerator of the ratio

y = the denominator of the ratio

σ_x = the standard error of the numerator

σ_y = the standard error of the denominator

Illustration of the Use of the Standard Error Tables

The results of the DOT Supplement indicate that in the Rochester SMSA 197,200 persons commuted to work in 1975. Interpolation in table IV of this appendix for the Rochester SMSA shows that the standard error of an estimate of this size is approximately 3,280. Consequently, the 68-percent confidence interval, as shown by these data, is from 193,920 to 200,480. Therefore, a conclusion that the average estimate, derived from all possible samples, of 1975 persons who commuted to work lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Similarly, we could conclude that the average estimate, derived from all possible samples, lies within the interval from 191,950 to 202,450 workers with 90-percent confidence and within the interval from 190,640 to 203,760 with 95-percent confidence.

Also, of the 197,200 workers who commuted 138,200 or 70.1 percent drove alone. Interpolation in table IX and application of the factor for Rochester in table VII show that the standard error of the 70.1 percent is approximately 1.08 x .860 = .9 percentage points. Consequently, the 68-percent confidence interval, as shown by these data, is from 69.2 to 71.0 percent; the 90-percent confidence interval is from 68.7 to 71.5 percent; and the 95-percent confidence interval is from 68.3 to 71.9 percent.

Standard Errors of Differences. The standard errors shown are not directly applicable to differences between two sample estimates. The standard error of a difference between estimates is approximately equal to the square root of the sum of the squares of the standard error of each estimate considered separately. This formula is quite accurate for the difference between estimates of the same characteristic in two different SMSA's or the difference between separate and uncorrelated characteristics in the same SMSA. However, if there is a high positive correlation between the two characteristics, the formula will overestimate the true standard error; whereas, if there is a high negative correlation, the formula will underestimate the true standard error.

Illustration of the Computation of the Standard Error of a Difference

In 1975 there were 41,100 persons who carpooled to work in the Rochester SMSA. Thus, the apparent difference, as shown by these data, between those commuters who drove alone and those who carpooled in 1975 is 97,100. Table IV for Rochester shows the standard error of 138,200 is approximately 2,910 and the standard error of 41,100 is approximately 1,710. Therefore, the standard error of the estimated difference of 97,100 is about

$$3,380 = \sqrt{(2,910)^2 + (1,710)^2} .$$

Consequently, the 68-percent confidence interval for the 97,100 difference is from 93,720 to 100,480 workers. Therefore, a conclusion that the average estimate of this difference, derived from all possible samples, lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Similarly, the 90-percent confidence interval is from 91,690 to 102,510, and the 95-percent confidence interval is from 90,340 to 103,860. Thus, we can conclude with 95-percent confidence that the number of commuters who drove alone in 1975 is greater than the number who carpooled, since the 95-percent confidence interval does not include zero or negative values.

Standard Error of an Arithmetic Mean.—The standard error of an arithmetic mean can be approximated by the following formula:

$$\sigma_{\bar{x}} = \sqrt{\frac{b}{y} S^2}$$

where y is the size of the base, and b is calculated by squaring the appropriate factor in table VII and multiplying by 101.66896 for housing data and 106.18734 for workers data. The variance, S^2, is given by

$$S^2 = \sum_{i=1}^{c} p_i \bar{X}_i^2 - \bar{X}^2$$

where $\bar{x}$ is the mean of the distribution; c is the number of groups; i indicates a specific group, thus taking on values 1 through c; p_i is the estimated proportion with the characteristic in group i; Z_{i-1} and Z_i are the lower and upper interval boundaries respectively,

for group i; and $\bar{x}_i = \dfrac{Z_{i-1} + Z_i}{2}$, which is assumed to be the most

representative value for the characteristic for persons or families and unrelated individuals in group i. Group c is open-ended, i.e., no upper interval boundary exists. For this group an approximate average value is

$$\bar{x}_c = \frac{3}{2} Z_{c-1} .$$

Standard Error of a Median. The sampling variability of an estimated median depends upon the form of the distribution as well as the size of its base. An approximate method for measuring the reliability of a median is to determine an interval about the estimated median, such that there is a stated degree of confidence that the median based on a complete census lies within the interval. The following procedure may be used to estimate the 68 percent confidence limits on sample data:

(1) Determine, using the standard error tables and factors, the standard error of the estimate of 50 percent from the distribution.

(2) Add to and subtract from 50 percent the standard error determined in step (1).

(3) Using the distribution of the characteristic, calculate the confidence interval corresponding to the two points established in step (2).

A two-standard-error confidence interval may be determined by finding the values corresponding to 50 percent plus and minus twice the standard error determined in step (1).

Illustration of the Computation of a Confidence Interval for a Median. The following is the distribution of travel time from home to work for heads of owner-occupied housing units in Rochester as obtained from the DOT Supplement. These figures have been rounded to the nearest hundred.

Class Interval	Number of Persons	Relative Frequency (%)
Less than 15 min.	32,400	25.9
15 to 29 min.	59,800	47.7
30 to 44 min.	23,500	18.8
45 to 59 min.	5,600	4.5
1 hr. to 1 hr. 29 min.	3,400	2.7
1 hr. 30 min. or more	600	.5
Total	125,300	

The median, as computed from this distribution on a base of 125,300, is 22.1 minutes.

(1) Using table IX and the factor for Rochester, the standard error of 50 percent on a base of 125,300 is about 1.2 percent.

(2) A 95 percent confidence interval on a median is obtained by adding to and subtracting from 50 percent twice the standard error found in step (1). This yields percent limits 47.6 and 52.4.

(3) The median interval is 15 to 29 minutes. (For purposes of calculation the interval is taken to be 14.5 to 29.5 minutes.) It can be seen above that 25.9 percent of the persons fall in the interval below the median interval while 47.7 percent fall in the median interval itself. Thus, the lower limit on the estimate is found to be about

$$14.5 + (29.5 - 14.5) \left| \frac{47.6 - 25.9}{47.7} \right| = 21.3 \ .$$

Similarly, the upper limit may be found by linear interpolation to be about

$$14.5 + (29.5 - 14.5) \left| \frac{52.4 - 25.9}{47.7} \right| = 22.8 \ .$$

Thus, the 95 percent confidence interval on the estimated median is from 21.3 to 22.8 minutes.

Note that a median calculated directly from the data file will probably differ from that calculated using the distribution. In this case, form a new interval by adding to and subtracting from the directly calculated median the differences between the median and the endpoints of the confidence limits derived from the grouped data.

For example, suppose the median computed directly from the data file was 23 minutes. Then the 95-percent confidence interval would be from 22.2 [23 - (22.1 - 21.3)] to 23.7 [23 + (22.8 - 22.1)].

Illustration of the Computation of the Standard Error of an Arithmetic Mean.—In the previous example the distribution of travel time from home to work for heads of owner-occupied housing units in Rochester was given. The mean travel time, as calculated from this grouped data, is 24.8 minutes. The values of P_i and $\overline{X}_i$ for each group are shown below:

Class Interval	P_i	$\overline{X}_i$
Less than 15 min.	.259	7.5
15 to 29 min.	.477	22.5
30 to 44 min.	.188	37.5
45 to 59 min.	.045	52.5
1 hr. to 1 hr. 29 min.	.027	75.0
1 hr. 30 min. or more	.005	135.0

TABLE I. Standard Errors for Estimated Number of Housing Units in the 1975 Housing Inventory: Four Large SMSA's

(68 chances out of 100)

Standard Error

Size of Estimate	Atlanta, Ga.			Chicago, Ill.			Philadelphia, Pa. - N.J.			San Francisco-Oakland, Calif		
	SMSA	In Central City	Not In Central City	SMSA	In Central City	Not In Central City	SMSA	In Central City	Not In Central City	SMSA	In Central Cities	Not In Central Cities
0	50	30	70	200	190	200	140	120	160	100	80	120
200	100	80	120	200	200	200	170	150	180	140	130	160
500	160	120	190	310	310	320	270	240	280	230	200	250
700	190	140	220	370	370	370	320	290	340	270	240	290
1,000	220	170	260	440	440	450	380	340	400	320	280	350
2,500	350	270	420	700	700	710	600	540	640	500	440	550
5,000	500	380	590	990	980	1,000	840	760	900	710	630	780
10,000	710	530	830	1,400	1,390	1,410	1,190	1,080	1,270	1,010	880	1,100
25,000	1,110	800	1,300	2,210	2,180	2,200	1,880	1,680	2,000	1,580	1,370	1,730
50,000	1,560	1,060	1,810	3,130	3,060	3,130	2,650	2,340	2,810	2,220	1,900	2,420
100,000	2,170	1,260	2,480	4,400	4,240	4,400	3,720	3,200	3,920	3,080	2,540	3,320
250,000	3,280	--	3,530	6,880	6,300	6,810	5,760	4,480	5,960	4,620	3,270	4,790
400,000	3,950	--	3,910	8,590	7,430	8,420	7,130	4,830	7,210	5,500	2,900	5,410
500,000	4,260	--	--	9,530	7,870	9,260	7,850	4,660	7,810	5,870	--	5,510
1,000,000	--	--	--	12,890	7,360	12,000	10,200	--	9,060	6,020	--	--
1,500,000	--	--	--	15,030	--	--	11,300	--	--	--	--	--
2,000,000	--	--	--	16,440	--	--	--	--	--	--	--	--

(68 chances out of 100)

Standard Error

Size of Estimate	Cincinnati Ohio-Ky.-Ind.	Colorado Springs, Colo.	Columbus, Ohio	Hartford, Conn.	Kansas City, Mo.-Kans.	Madison, Wis.	Miami, Fla.	Milwaukee, Wis.	New Orleans, La.	Newport News, Va.	Paterson-Clifton-Passaic, N.J.	Portland, Oreg.-Wash.	Rochester, N.Y.	San Antonio, Tex.	San Bernardino-Riverside-Ontario, Calif.	San Diego, Calif.	Springfield-Chicopee-Holyoke, Mass.-Conn.
0	110	30	80	50	110	30	160	110	90	30	90	100	70	70	110	150	40
100	110	50	90	70	110	50	160	110	100	50	100	100	80	80	110	150	60
200	150	70	130	100	150	70	180	150	140	80	140	140	120	120	150	170	90
500	240	110	200	160	230	110	280	240	220	120	220	220	190	190	240	270	140
700	280	130	230	180	280	130	330	280	260	140	260	260	220	220	280	320	170
1,000	340	160	280	220	330	160	390	340	310	170	310	310	270	270	340	390	200
2,500	530	250	440	350	520	250	620	530	490	260	490	500	420	420	530	610	320
5,000	750	350	620	490	740	350	880	750	680	376	690	700	590	600	750	860	440
10,000	1,060	490	870	680	1,040	480	1,240	1,060	960	510	960	980	830	840	1,060	1,220	620
25,000	1,650	710	1,360	1,050	1,620	710	1,930	1,650	1,490	760	1,500	1,540	1,290	1,310	1,650	1,900	950
50,000	2,290	840	1,850	1,400	2,230	870	2,670	2,270	2,050	950	2,060	2,130	1,770	1,810	2,290	2,630	1,280
100,000	3,070	490	2,440	1,740	3,000	690	3,590	3,050	2,170	900	2,740	2,870	2,320	2,420	3,080	3,530	1,590
250,000	3,990	—	2,790	—	3,890	—	4,700	3,920	3,250	—	3,370	3,820	2,660	3,090	4,060	4,630	—
400,000	3,640	—	—	—	3,520	—	4,380	3,470	2,090	—	2,520	3,700	—	—	3,840	4,320	—
500,000	—	—	—	—	—	—	3,230	—	—	—	—	—	—	—	2,950	3,210	—

TABLE III. Standard Errors of Estimated Numbers of Workers in the Four Large SMSA's, the Central Cities, and the Balance of the SMSA's

(68 chances out of 100)

Size of Estimate	Atlanta, Ga.			Chicago, Ill.			Philadelphia, Pa.-N.J.			San Francisco-Oakland, Calif.		
	SMSA	In Central City	Not In Central City	SMSA	In Central City	Not In Central City	SMSA	In Central City	Not In Central City	SMSA	In Central City	Not In Central City
0	50	30	70	200	200	230	150	110	170	110	80	120
25	50	30	70	200	200	230	150	110	170	110	80	120
50	50	40	70	200	200	230	150	110	170	110	80	120
100	70	60	80	200	200	230	150	110	170	110	90	120
200	100	80	120	230	230	340	170	150	180	130	120	150
500	160	120	190	330	310	400	230	230	290	150	130	150
700	190	150	220	400	370	440	270	270	340	180	150	150
1,000	230	170	260	470	400	760	330	340	410	230	200	240
2,500	360	220	410	750	480	1,070	410	410	510	270	240	290
5,000	510	280	590	1,050	700	1,510	510	510	650	330	290	350
10,000	720	390	820	1,490	990	2,380	730	730	920	510	350	550
25,000	1,130	550	1,290	2,350	1,400	3,350	1,020	1,020	1,300	730	460	770
50,000	1,580	840	1,800	3,320	2,210	4,080	1,620	1,610	2,050	1,030	650	1,090
75,000	1,910	1,140	2,170	4,060	3,100	4,690	2,050	2,050	2,880	1,430	910	1,710
100,000	2,180	1,330	2,460	4,670	3,780	5,700	2,280	2,260	3,510	1,980	1,430	2,410
150,000	2,610	1,460	2,910	5,700	4,340	7,220	2,780	2,740	4,030	2,280	1,980	2,920
250,000	3,200	1,570	3,460	7,280	5,260	9,700	3,190	3,130	4,870	2,780	2,390	3,350
500,000	3,830	1,310	3,660	10,030	6,630	12,170	3,870	3,760	6,140	3,190	2,710	4,030
1,000,000	2,550	--	--	13,410	8,810	12,740	4,880	4,660	8,110	3,870	3,200	5,030
1,400,000	--	--	--	15,090	10,640	11,630	6,500	5,820	9,650	4,880	3,800	6,440
2,000,000	--	--	--	16,550	10,570	10,340	7,920	5,450	9,360	6,500	3,970	6,820
2,250,000	--	--	--	16,850	7,690	8,280	7,960	--	5,750	7,920	--	--
2,500,000	--	--	--	17,000	4,420	3,880	9,360	--	--	7,960	--	--
3,500,000	--	--	--	15,950	--	--	--	--	--	6,180	--	--
4,500,000	--	--	--	11,580	--	--	--	--	--	4,300	--	--
5,000,000	--	--	--	6,470	--	--	--	--	--	--	--	--

(68 chances out of 100)

Standard Error

Size of Estimate	Cincinnati, Ohio-Ky.-Ind.	Colorado Springs, Colo.	Columbus, Ohio	Hartford, Conn.	Kansas City, Mo.-Kans.	Madison, Wis.	Miami, Fla.	Milwaukee, Wis.	New Orleans, La.	Newport News, Va.	Paterson-Clifton-Passaic, N.J.	Portland, Oreg.-Wash.	Rochester, N.Y.	San Antonio, Texas	San Bernadino-Riverside-Ontario, Calif.	San Diego, Calif.	Springfield-Chicopee-Holyoke, Mass.-Conn.
0	120	30	80	60	120	20	140	120	100	30	120	100	80	80	110	140	40
25	120	30	80	60	120	20	140	120	100	30	120	100	80	80	110	140	40
50	120	40	80	60	120	40	140	120	100	40	120	100	80	80	110	140	40
100	150	60	90	80	150	50	140	120	100	50	120	100	90	90	110	140	60
200	240	80	130	110	240	70	170	160	140	80	150	140	130	120	150	170	90
500	240	130	200	170	290	110	260	250	220	120	240	220	200	190	230	270	140
700	290	150	240	200	340	130	310	295	260	140	290	260	230	230	280	310	170
1,000	340	180	280	240	540	160	370	350	310	170	340	320	280	270	330	370	200
2,500	540	280	450	380	770	250	590	550	490	270	540	500	440	430	520	590	320
5,000	770	390	630	530	1,080	350	830	780	690	370	770	710	620	610	740	840	440
10,000	1,080	550	850	750	1,700	490	1,170	1,100	970	520	1,080	1,000	860	860	1,040	1,180	620
25,000	1,700	830	1,390	1,160	2,370	740	1,850	1,720	1,530	790	1,700	1,560	1,370	1,350	1,640	1,850	970
50,000	2,370	1,080	1,920	1,600	2,860	990	2,580	2,410	2,120	1,050	2,370	2,170	1,900	1,870	2,280	2,590	1,320
75,000	2,860	1,200	2,310	1,910	3,260	1,120	3,120	2,910	2,560	1,180	2,860	2,620	2,280	2,240	2,750	3,140	1,560
100,000	3,260	1,240	2,620	2,140	3,870	1,180	3,560	3,320	2,900	1,240	3,260	2,970	2,580	2,530	3,130	3,580	1,730
150,000	3,890	1,040	3,070	2,460	3,960	1,140	4,260	3,960	3,430	1,140	3,890	3,510	3,010	2,960	3,710	4,280	1,940
200,000	4,360	—	3,380	2,530	4,680	800	4,790	4,450	3,810	640	4,360	3,900	3,300	3,280	4,140	4,810	2,000
250,000	4,730	—	3,590	2,650	4,940	—	5,210	4,830	4,080	—	4,730	4,190	3,480	3,430	4,460	5,240	1,940
300,000	5,010	—	3,710	2,210	5,250	—	5,540	5,130	4,270	—	5,020	4,390	3,560	3,530	4,690	5,570	1,750
400,000	5,370	—	3,720	690	5,320	—	6,000	5,520	4,420	—	5,390	4,560	3,480	3,480	4,940	6,040	300
500,000	5,510	—	2,670	—	5,140	—	6,240	5,690	4,300	—	5,530	4,470	3,020	3,080	4,940	6,280	—
600,000	5,440	—	—	—	3,920	—	6,270	5,660	3,890	—	5,470	4,090	1,930	2,150	4,680	6,320	—
800,000	4,600	—	—	—	2,470	—	5,720	4,950	1,160	—	4,670	1,730	—	—	3,100	5,790	—
900,000	3,670	—	—	—	—	—	5,070	4,150	—	—	3,790	—	—	—	—	5,160	—
1,000,000	1,890	—	—	—	—	—	4,030	2,790	—	—	2,150	—	—	—	—	4,160	—

(68 chances out of 100)

Size of Estimate	Standard Error																
	Cincinnati, Ohio-Ky.-Ind.	Colorado Springs, Colo.	Columbus, Ohio	Hartford, Conn.	Kansas City, Mo.-Kansas	Madison, Wisc.	Miami, Fla.	Milwaukee, Wisc.	New Orleans, La.	Newport News, Va.	Paterson-Clifton-Passaic, N.J.	Portland, Oreg.-Wash.	Rochester, N.Y.	San Antonio, Texas	San Bernardino-Riverside-Ontario, Calif.	San Diego, Calif.	Springfield-Chicopee-Holyoke, Mass.-Conn.
0	110	30	80	60	120	20	130	120	100	30	100	110	70	70	110	150	40
25	110	30	80	60	120	20	130	120	100	30	100	110	70	70	110	150	40
50	110	40	90	70	120	30	130	120	100	40	100	110	70	70	110	150	40
100	150	50	120	110	150	50	160	150	140	60	140	150	120	120	150	170	60
200	240	70	200	170	240	70	250	240	220	80	230	230	180	180	230	270	80
500	280	120	230	200	290	110	300	290	260	120	270	270	220	220	270	320	130
700	340	140	300	230	340	130	390	340	310	150	320	330	260	260	320	420	160
800	530	190	440	370	540	190	570	540	490	270	510	510	410	410	600	850	400
1,000	750	260	620	510	760	240	800	770	690	390	710	720	580	580	850	1,200	420
2,500	1,650	500	850	710	1,060	340	1,120	1,080	970	540	990	1,020	800	820	1,010	1,870	580
5,000	1,610	730	1,340	1,020	1,650	470	1,730	1,680	1,500	810	1,510	1,560	1,220	1,270	1,540	2,580	890
10,000	2,180	870	1,830	1,180	2,240	700	2,330	2,310	2,060	1,060	2,100	2,100	1,600	1,750	2,040	3,080	1,170
25,000	2,540	810	2,160	1,030	2,630	850	2,700	2,750	2,430	1,180	2,240	2,430	1,780	2,080	2,330	3,460	1,310
50,000	2,780	480	2,390	130	2,900	850	2,940	3,090	2,710	1,200	2,330	2,630	1,840	2,330	2,460	4,000	1,360
75,000	2,980	--	2,670	--	3,190	680	3,110	3,540	3,050	980	2,100	2,740	1,570	2,660	2,380	4,320	1,230
100,000	2,870	--	2,750	--	3,220	--	3,770	3,780	3,180	--	970	2,500	--	2,830	1,720	4,480	540
150,000	2,410	--	2,660	--	2,980	--	2,920	3,860	3,130	--	--	1,760	--	2,880	--	4,490	--
200,000	1,260	--	2,360	--	2,410	--	2,280	3,780	2,890	--	--	--	--	2,800	--	4,030	--
300,000	--	--	--	--	--	--	--	3,100	1,430	--	--	--	--	2,190	--	2,670	--
400,000	--	--	--	--	--	--	--	380	--	--	--	--	--	--	--	--	--

TABLE VI. Standard Errors of Estimated Numbers of Workers: Seventeen Small SMSA's: Balance

(68 chances out of 100)

Size of Estimate	Cincinnati, Ohio-Ky.-Ind.	Colorado Springs, Colo.	Columbus, Ohio	Hartford, Conn.	Kansas City, Mo.-Kansas	Madison, Wis.	Miami, Fla.	Milwaukee, Wis.	New Orleans, La.	Newport News, Va.	Paterson-Clifton-Passaic, N.J.	Portland, Oreg.-Wash.	Rochester, N.Y.	San Antonio, Tex.	San Bernardino-Riverside-Ontario, Calif.	San Diego, Calif.	Springfield-Chicopee-Holyoke, Mass.-Conn.
							Standard Error										
0	110	40	90	50	120	30	140	130	100	20	120	100	80	80	110	140	40
25	110	40	90	50	120	30	140	130	100	20	120	100	80	80	110	140	50
50	110	60	90	70	120	40	140	130	100	30	120	100	80	90	110	140	70
100	150	90	130	100	150	50	160	160	140	50	150	140	130	120	150	160	90
200	240	80	210	140	240	70	270	250	220	70	240	220	200	200	240	260	150
500	280	130	250	190	290	120	300	300	260	110	280	280	240	230	280	310	180
700	340	160	290	230	340	140	380	350	310	130	340	320	280	280	340	330	210
1,000	530	190	460	360	510	160	490	490	490	150	540	500	450	440	530	370	330
2,500	750	290	650	510	770	260	600	560	500	230	770	710	630	610	750	580	460
5,000	1,060	410	910	720	1,080	360	850	790	700	310	1,080	990	890	850	1,060	820	650
10,000	1,660	560	1,410	1,110	1,680	490	1,190	1,110	980	390	1,690	1,380	1,380	1,290	1,660	1,160	980
25,000	2,300	780	1,900	1,520	2,330	710	1,870	1,730	1,510	160	2,360	2,140	1,900	1,670	2,300	1,800	1,280
50,000	2,760	860	2,210	1,790	2,760	840	2,600	2,390	2,070	---	2,840	2,550	2,250	1,850	2,760	2,490	1,430
75,000	3,130	570	2,410	1,990	3,140	770	3,140	2,860	2,440	---	3,220	2,870	2,510	1,870	3,120	2,980	1,460
100,000	3,670	---	2,580	2,230	3,640	390	3,560	3,220	2,700	---	3,810	3,310	2,850	1,450	3,650	3,360	1,220
150,000	4,300	---	2,030	2,250	4,140	---	4,210	3,720	3,010	---	4,550	3,700	3,020	---	4,230	3,900	---
300,000	4,450	---	890	2,030	4,200	---	5,020	4,210	2,980	---	4,760	3,300	2,870	---	4,340	4,420	---
350,000	4,140	---	---	550	3,930	---	5,260	3,850	2,620	---	4,950	2,100	1,960	---	4,280	4,460	---
400,000	4,480	---	---	---	3,070	---	5,480	3,720	---	---	4,850	---	---	---	3,780	4,160	---
500,000	3,330	---	---	---	---	---	5,370	3,850	---	---	4,440	---	---	---	2,610	3,160	---
600,000	4,140	---	---	---	---	---	4,930	3,620	---	---	3,620	---	---	---	---	---	---
800,000	1,350	---	---	---	---	---	2,180	2,720	---	---	1,890	---	---	---	---	---	---

TABLE VII. Factors to be Applied to Tables VIII and IX

SMSA	Travel-to-Work Data[1]			Housing Data[2]		
	SMSA	Central City	Balance	SMSA	Central City	Balance
Atlanta	.702	.538	.805	.701	.535	.826
Chicago	1.448	1.362	1.467	1.392	1.380	1.400
Philadelphia	1.171	.998	1.265	1.182	1.073	1.263
San Francisco	1.000	.889	1.061	1.000	.883	1.100
Cincinnati	1.054	1.032	1.034	1.062	--	--
Colorado Springs	.544	.512	.579	.504	--	--
Columbus	.867	.854	.900	.877	--	--
Hartford	.733	.723	.703	.690	--	--
Kansas City	1.057	1.047	1.056	1.038	--	--
Madison	.484	.479	.501	.499	--	--
Miami	1.145	1.106	1.165	1.238	--	--
Milwaukee	1.071	1.058	1.088	1.058	--	--
New Orleans	.951	.950	.961	.964	--	--
Newport News	.519	.537	.479	..527	--	--
Paterson	1.054	.989	1.055	.965	--	--
Portland	.972	1.003	.974	.984	--	--
Rochester	.860	.801	.874	.835	--	--
San Antonio	.842	.802	.851	.842	--	--
San Bernadino	1.018	1.001	1.038	1.060	--	--
San Diego	1.150	1.174	1.132	1.218	--	--
Springfield	.613	.580	.645	.629	--	--

[1] Factors given below should be applied only to standard errors in table IX.

[2] Factors given below should be applied only to standard errors in table VIII.

--Not applicable.

TABLE VIII.   Standard Errors for Estimated Percentages of Housing Units in the 1975
Housing Inventory[1]

Base of Percentage	Estimated Percentage					
	0 or 100	1 or 99	5 or 95	10 or 90	25 or 75	50
200	33.7	33.7	33.7	33.7	33.7	35.6
500	16.9	16.9	16.9	16.9	19.5	22.5
700	12.7	12.7	12.7	12.7	16.5	19.1
1,000	9.2	9.2	9.2	9.6	13.8	15.9
2,500	3.9	3.9	4.4	6.0	8.7	10.1
5,000	2.0	2.0	3.1	4.3	6.2	7.1
10,000	1.0	1.0	2.2	3.0	4.4	5.0
25,000	0.4	0.6	1.4	1.9	2.8	3.2
50,000	0.2	0.4	1.0	1.4	2.0	2.3
100,000	0.10	0.3	0.7	1.0	1.4	1.6
250,000	0.04	0.2	0.4	0.6	0.9	1.0
500,000	0.02	0.14	0.3	0.4	0.6	0.7
700,000	0.01	0.12	0.3	0.4	0.5	0.6
1,000,000	0.01	0.10	0.2	0.3	0.4	0.5

[1] The standard errors in this table cannot be used without applying the factors given in table VII.

Table IX. Standard Errors for Estimated Percentages of Workers[1]

Base of Percentage	Estimated Percentage					
	0 or 100	1 or 99	5 or 95	10 or 90	25 or 75	50
100	51.5	51.5	51.5	51.5	51.5	51.5
200	34.7	34.7	34.7	34.7	34.7	36.4
500	17.5	17.5	17.5	17.5	20.0	23.0
700	13.2	13.2	13.2	13.2	16.9	19.5
1,000	9.6	.9.6	9.6	9.8	14.1	16.3
2,500	4.1	4.1	4.5	6.2	8.9	10.3
5,000	2.1	2.1	3.2	4.4	6.3	7.3
10,000	1.1	1.1	2.2	3.1	4.5	5.2
25,000	0.4	0.6	1.4	2.0	2.8	3.3
50,000	0.2	0.5	1.0	1.4	2.0	2.3
75,000	0.14	0.4	0.8	1.1	1.6	1.9
100,000	0.11	0.3	0.7	1.0	1.4	1.6
150,000	0.07	0.3	0.6	0.8	1.2	1.3
250,000	0.04	0.2	0.4	0.6	0.9	1.0
500,000	0.02	0.15	0.3	0.4	0.6	0.7
800,000	0.01	0.11	0.3	0.3	0.5	0.6
1,000,000	0.01	0.10	0.2	0.3	0.4	0.5
1,600,000	0.01	0.08	0.2	0.2	0.4	0.4
2,000,000	0.01	0.07	0.2	0.2	0.3	0.4
2,250,000	0.01	0.07	0.15	0.2	0.3	0.3

[1] The standard errors in this table cannot be used without applying the factors given in table VII.