

APPENDIX D

DERIVED VARIABLES

This appendix contains variables in the codebooks for the public use and DOT research files that do not exist in the 2001 NHTS questionnaire included as Appendix M to this User's Guide. These variables were derived by:

- Simply renaming variables in the 2001 questionnaire so that the names correspond to those used in earlier NPTS Surveys. This group of variables have an * following the variable name,
- combining one or more questionnaire variables into a single variable, or
- obtaining the variable from external sources other than the survey questionnaire.

We list each "derived" variable and for variables created by Westat, this Appendix describes how each was calculated. If the derived variable was derived from variables in the questionnaire, the description provides the name of the variable that was used to derive the new variable followed in parenthesis by the question number in the questionnaire where the variable is located. If the variable is derived from a variable not in the questionnaire (from another derived variable), the variable name is followed by the word "derived" in parenthesis.

For variables created by Oak Ridge National Laboratory (ORNL), Appendix J provides a description of how each was calculated. For more information on the variables provided by Energy Information Administration (EIA), please refer to Appendix K. Additional detail on variables created by Claritas is provided in Appendix Q.

1. AGE_P1 to AGE_P14*: Age of each household member derived from AGE (C8). The P1, P2 etc. correspond to the last two digits of the person ID. In 1995 this variable was named P1_AGE to P14_AGE.
2. ANMLTYR: This variable is an annualized mile estimate for vehicles owned less than 1 year using ESTMILES (L10) as follows: $(12 \times L10) / (L8 \text{ converted to months})$. Do not include vehicles where L8 is -7, -8 or -9. If ESTMILES is -7 or -8, use ESTMILE2. The value of this variable has been capped at 200,000 miles in the public use file. In 1995 this variable was named ANNMILES.
3. ANNMILES: Annualized mile estimate for all vehicles as reported during the person interview.
 - If VEHOWNMO (derived) is 12 months or more, the annualized mileage is the miles reported in VEHMILES (L9), or VEHMILE2 (L9A). Use VEHMILE2 instead of VEHMILES if VEHMILES is -7 or -8. Use the mid-point of the range in VEHMILE2.
 - If VEHOWNMO is less than 12 months, use the annualized mileage estimate reported in ANMLTYR (derived).
 - If VEHOWNMO is -7, -8, or -9, ANNMILES should be -7, -8 or -9.
4. ANNUALZD: Annual miles estimates derived from the odometer readings. Variable provided by ORNL.
5. ANN_FLG: Reasons for missing ANNUALZD value. Variable provided by ORNL.
6. ANULZDSE: Standard error of ANNUALZD estimate. Variable provided by ORNL.
7. BESTMILE: Estimated best estimate of annual miles this vehicle was driven derived by ORNL.
8. BEST_EDT: Indicates BESTMILE was edited. Variable provided by ORNL.
9. BEST_FLG: Indicates how BESTMILE was derived. Variable provided by ORNL.
10. BEST_OUT: Indicates outlier values for BESTMILE. Variable provided by ORNL.
11. BTUCOST: Fuel cost estimated in units of cents per million British Thermal Units provided by EIA.
12. BTUTCOST: Total dollar cost of fuel per year derived from BTUCOST and BTUYEAR provided by EIA.
13. BTUYEAR: Estimate of the amount of million British Thermal Units consumed per

* This derived variable was created by simply renaming the variable name in the 2001 questionnaire.

year. Provided by EIA.

14. CDIVMSAR: This variable is derived from variables CENSUS_D and MSACAT. This represents the smallest geographic level that is appropriate for tabulations of the national sample data.
15. CENSUS_D: The classification is derived from the geocode for the household's home address. The 2000 Census Division source used was [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/DV2000.HTML](http://www.census.gov/geo/www/COB/DV2000.html). The categories are:
 - 1 = New England (ME, NH, VT, CT, MA, RI)
 - 2 = Mid-Atlantic (NY, NJ, PA)
 - 3 = East North Central (IL, IN, MI, OH, WI)
 - 4 = West North Central (IA, KS, MO, MN, ND, NE, SD)
 - 5 = South Atlantic (DE, FL, GA, MD, NC, SC, WV, VA)
 - 6 = East South Central (AL, KY, MS, TN)
 - 7 = West South Central (AR, LA, OK, TX)
 - 8 = Mountain (AZ, CO, ID, MT, NM, NV, UT, WY)
 - 9 = Pacific (AK, CA, HI, OR, WA)
16. CENSUS_R: The classification is derived from the geocode for the household's home address. The 2000 Census Region source used was [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/RG2000.HTML](http://www.census.gov/geo/www/COB/RG2000.html). The categories are:
 - 1 = Northeast
 - 2 = Midwest
 - 3 = South
 - 4 = West
17. CNTTDHH: This variable is the sum of all Travel Day person trips enumerated (G12 through G14) by interviewed household members in useable households.
18. CNTTDTR: This variable is the sum of Travel Day person trips, including zero, made by this subject. It will include trips reported by this subject for which trip detail was obtained from another household member.
19. CNTTPHH: This variable is the sum of all Travel Period person trips enumerated (H1) by interviewed household members in useable households. For recurring trips where RECURR (H1) is 1 the count of trips is the number reported in NTIMES (H1). Do not include most recent trips. It is the sum of CNTTPTR for each household member.
20. CNTTPTR: This variable is the sum of Travel Period person trips, including zero, made by this subject. It will include trips reported by this subject for which trip detail was obtained from another household member.

21. CNTTPUNQ: The number of unique travel period trips for this respondent. If the subject has no recurring trips, it is the total number of travel period trips enumerated. If the subject has recurring trips (RECURR (H1)), count each recurring trip just once when calculating the total number of unique trips. Do not include most recent trips. Include trips reported by this subject for which trip detail was obtained from another household member.
22. COMMDRVR*: This variable is 1 if WRKDRIVE (E8) is 1.
23. COMMOCC*: The variable is obtained from OCCUPATN (E9).
24. DIARYCMP: Indicates whether the travel day diary was completed. Derived by combining categories 2 and 3 in question (G2) into category 2.
25. DIFFDATE: Variable calculated by subtracting the date of the travel day from the date the subject completed the person interview.
26. DISTBLOC: The one way distance from home to work, if reported in blocks. If DISTUNIT (E14) = 1 (blocks), then the number of blocks from (E14) is in DISTBLOC. If DISTTOWK (E14) is 996, set DISTBLOC to 1.
27. DISTTOWK: The one way distance from home to work reported in or converted to miles. The variable is derived from DISTTOWK (E14) and DISTUNIT (E14). If DISTUNIT (E14) is 1 (blocks), then the number of blocks is converted to miles using the equation 9 blocks = 1 mile. If already reported in miles, use the number of miles reported. If DISTTOWK (E14) is 996, set 996 to 0.1. If DISTTOWK (E14) is 997, set 997 to 0.25.
28. DRIVER: Driver status of subject. If DRVR (C8), DRIVER (C13), or WRKDRIVE (E8) is 1, or if the subject was reported as the driver on any travel day trip by any household member (WHODROVE (G49) on any household member travel day trip has the subject's person number) then the subject is a driver (DRIVER (derived) = 1).
29. DRVRCNT: The number of drivers in the household. The variable is derived by counting the number of occurrences of DRV_P1 through DRV_P14 that are 1.
30. DRVR_FLG: The variable is 1 if the subject drove on the travel day trip (WHODROVE (G49) has the subject's person number). This flag should only be set on trips where TRPTRANS (G34), HOWPUB1-5 (G35), or HOWFRP1-5 (G38) is 1 through 7 or 91.

31. DRVR_P1 to DRVR_P14*: Indicates if the household member was a driver on the day of the household interview. Derived from DRVR (C8). The P1, P2 etc. correspond to the last two digits of the person ID. In 1995 this variable was named P1_DRVR to P14_DRVR.
32. DRV_P1 to DRV_P14: Derived from DRIVER (derived). For household members who did not complete a person interview, the value is derived from DRVR (C8).
33. DTNOWALK*: The variable is obtained from DTWALK (L2c).
34. DWELTIME: The time spent at destination. The variable is calculated by subtracting the start time of the subsequent travel day trip (STRTHR, STRTMIN, STRTAMPM (G16)) from the end time of the current trip (ENDHOUR, ENDMIN, ENDAMPM (G17)).
35. EDITENTM: The end time (ENDHOUR, ENDMIN, ENDAMPM (G17)) for a travel day trip was edited.
36. EDITMILE: The trip distance (TRIPDIST, TRIPUNIT (G40)) for a travel day trip was edited.
37. EDITMIN: The time it took to make the travel day trip (TRVLHR, TRVLMIN (G42)) was edited. In 1995 this variable was named EDIT_MIN.
38. EDITMODE: The main transportation mode (TRPTRANS (G34)) for the travel day trip was edited.
39. EDITPURP: The purpose (AWAYHOME (G25) or WHYTRP90 (G26)) for a travel day trip was edited.
40. EDITSTTM: The start time (STRTHR, STRTMIN, STRTAMPM (G16)) for a travel day trip was edited.
41. EIADMPG: Miles per gallon estimate for this vehicle derived by EIA.
42. EPATMPG: EPA estimate of total miles per gallon for this vehicle provided by EIA.
43. EPATMPGF: Indicates that EPATMPG was imputed. Variable provided by EIA.
44. ESTMILES: Mileage for vehicles owned less than 12 months. For vehicles where L8 is -7, -8 or -9, ESTMILES (L10) should be set to -9. In 1995 this variable was named VEHMILES.
45. ESTMLCAT*: Mileage category for vehicles owned less than 12 months. Derived from ESTMILE2 (L10B).

46. EXPFLHHN: HH weight for 100 percent completed households for the national sample only provided on the Version 2 file in variable EXPFLHH.
47. EXPFLHH: Household weight for households where 100 percent of household members 18 and over completed a person interview.
48. EXPFLPR: Person weight for households where 100 percent of household members 18 and over completed a person interview.
49. EXPFLTD: Travel day trip weight for persons in households where 100 percent of household members 18 and over completed a person interview.
50. EXPFLPRN: Person weight for 100 percent households for the national sample only. Delivered as variable EXPFLPR in Version 2.
51. EXPFLTDN: Travel day trip weight for 100 percent households provided as variable EXPFLTD in Version 2.
52. EXPSCRHH: Household weight for households that have completed a household interview.
53. FINSAS: Travel day end time in SAS. The variable is derived from ENDCOR, ENDCOR, ENDCOR (G17).
54. FLGFINCM: Indicates that the income of all household members is included in HHFINCM (derived). The variable is derived from NONFMFLG (M22). In 1995 this variable was named NONFMFLG.
55. FLGNXTDY: The variable indicates that the travel day trip started on the travel day but ended on the day following the travel day. Identify the trips based on their order in the trip roster and the time they started and ended.
56. FLGPRDRV: Indicates the number of vehicles in the household for which the subject is the primary driver. Used WHOMAIN (C12) to determine who is the primary driver of each household vehicle. Then, for each household member counted the number of vehicles where s(he) is the primary driver and coded into the appropriate categories.
57. FUELTYPE: Vehicle fuel type provided by EIA
58. GCDWORK: Great circle distance in miles between home and work. Calculated using the home address (D4/D5/D8/D9/M11/M12) and work address (E10/E11/E12/E13) provided by the household. A -9 indicates that no distance was calculated.

59. GSCOST: Fuel cost estimated in cents per gallon for this vehicle in the local area provided by EIA.
60. GSTOTCST: Total cost of fuel per year for this vehicle derived from variables GSCST and GSYRGAL. Provided by EIA.
61. GSYRGAL: Gallons of gasoline per year for this vehicle derived from variables BESTMILE and EIADMPG. Provided by EIA.
62. HBHRES DN: Housing units density in units per square mile provided by Claritas.
63. HBHTNRNT: Percent renter-occupied housing provided by Claritas.
64. HBHUR: Urban/rural code provided by Claritas.
65. HBPPOPDN: Population density provided by Claritas.
66. HHBG: Census Block Group for the household's home address. The source used was the GDT Dynamap 2000 (from Census 2000 TIGER/Line files).
67. HHCITY: This is the city where the subject resides. Use the city provided by geocoders based on responses provided to D4 or M11. If MAILHOME (D6) is 1, it is the city reported in MAILCITY (D4/D5). Else, it is the city reported in HMCITY (M11).
68. HHCITYFP: City FIPS Code for the household's home address. The source used was the 2000 Incorporated Places/ Census Designated Place FIP Code, Geographic Data Technology (GDT) Dynamap/2000. A -999 indicates that we were unable to identify a FIPS code.
69. HHCNTY*: The variable is obtained from COUNTYNY (D10).
70. HHCNTYFP: County FIPS Code for the geocode for the household's home address. The source used was the United States Census Bureau State and County: 2000 County and County Equivalent Areas: Cartographic Boundary Files. File co99_d00.shp from [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/CO2000.HTM](http://www.census.gov/geo/www/cob/co2000.htm)
71. HHCT: This is the Census Tract for the geocode for the household's home address. The source used was the GDT Dynamap 2000 (from Census 2000 TIGER/Line files).
72. HHC_MSA: The CMSA or MSA code for the household's home address. In 1995 this variable was named HHMSA.

73. HHFAMINC: Total household family income for the last 12 months derived from HHFAMINC (M13) and HHINC (M14-M21). If HHINC is missing, randomly pick either the lower or upper range from HHFAMINC (M13). The income in this variable will be less than the income in HHINCTTL if at least one household member's income was not reported in M13.
74. HHINCTTL: This is the derived total income for the household and includes the income for individual household members even if they were reported individually. It is the sum of HHFAMINC (derived) and INCM_P1 through INCM_P14 (derived). Obtain the sum by adding the mid-point of the ranges for these derived variables.
75. HHINTDOW: The day of week the household interview was completed.
76. HHINTDT: The month and year the household interview was completed (YYYYMM).
77. HHINTDT2: The day, month and year the household interview was completed (YYYYMMDD).
78. HHMNINC: Number of household members with income NOT included in HHFAMINC. Count the number of person numbers in HHMINC1-15 (M23).
79. HHRESP: The unique 2-digit person ID number for the household respondent. This is the last two digits of the person ID number.
80. HHR_AGE*: Age of the household respondent. Derived from AGE (C5).
81. HHR_DRVR: Indicates whether the household respondent is a driver. Derived from DRVR (C8). In 1995 this variable was named REF_DRVR.
82. HHR_EDUC: Indicates the education level of the household respondent. Derived from EDUC (M7).
83. HHR_HISP*: Indicates the Hispanic ethnicity for the household respondent. Derived from HH_HISP (C6).
84. HHR_RACE: The race of the household respondent for the household. Code the variable as follows:
 - 01 Variable HH_RACE1 (C7) is yes (White) and no other variable is yes.
 - 02 Variable HH_RACE2 (C7) is yes (African American, Black) and no other variable is yes.
 - 03 Variable HH_RACE3 (C7) is yes (Asian) and no other variable is yes.
 - 04 Variable HH_RACE4 (C7) is yes (American Indian, Alaskan Native) and no other variable is yes.

- 05 Variable HH_RACE5 (C7) is yes (Native Hawaiian, Other Pacific Islander) and no other variable is yes.
 - 06 Variable HH_RACE7 (C7) is yes (Hispanic/Mexican) and no other variable is yes.
 - 07 Variables HH_RACE1 and HH_RACE2 (C7) are yes (White and African American, Black) and no other variables are yes.
 - 08 Variables HH_RACE1 and HH_RACE3 (C7) are yes (White and Asian) and no other variables are yes.
 - 09 Variables HH-RACE1 and HH_RACE4 (C7) are yes (White and American Indian, Alaskan Native) and no other variables are yes.
 - 10 Variables HH_RACE1 and HH_RACE7 (C7) are yes (White and Hispanic/Mexican) and no other variables are yes.
 - 11 Variables HH_RACE2 and HH_RACE7 (C7) are yes (African American, Black and Hispanic/Mexican) and no other variables are yes.
 - 12 Variables HH_RACE4 and HH_RACE7 (C7) are yes (American Indian, Alaskan Native and Hispanic/Mexican) and no other variables are yes.
 - 13 Only two race variables in HH_RACE1 through HH_RACE8 (C7) are yes and they are not categories 07 through 12 above.
 - 14 Three race variables in HH_RACE1 through HH_RACE8 (C7) are yes.
 - 15 Four race variables in HH_RACE1 through HH_RACE8 (C7) are yes.
 - 16 Variable HH_RACE6 (C7) is yes or the combination of races provided in HH_RACE1 through HH_RACE7 do not match categories 07 through 14.
 - 17 Variable HH_RACE8 (C7) is yes and none of the categories above apply.
85. HHR_SEX*: Indicates the gender of the household respondent. Derived from SEX (C5).
86. HHR_STAT: Final Person Interview Status Code for the household respondent. The household respondent in the household is the household member with a code of 1 for variable HH_RELAT (C8). Store the final person interview result code for this household member in the field. In 1995 this variable was named REF_STAT.
87. HHR_WRKR: Indicates if the household respondent is a worker. It is derived from WORKER (derived) and HHRESP (derived). In 1995 this variable was named REF_WKR.
88. HHSIZE: Count of household members in the household. Use the number enumerated in C8, excluding persons with a final result code beginning with "O."
89. HHSTATE: This is the geocoded state for the household's home address.
90. HHSTFIPS: State FIPS code for the geocode for the household's home address. The source used was the United States Census Bureau State and County: 2000 County and County Equivalent Areas: Cartographic Boundary Files. File co99_d00.shp from [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/CO2000.HTM](http://www.census.gov/geo/www/cob/co2000.htm).

91. HHTOTD: Number of days between the date the household completed the household interview and the date of the travel day.
92. HHVEHCNT: The number of vehicles in the household on the date of the household interview. This is the number of vehicles enumerated in B2 and verified in L7 and during the odometer collection process. Note, a vehicle that is determined to be sold either during the person interview or odometer collection process is still counted as a household vehicle on the date of the household interview. Vehicles used on the travel day or travel period are also counted as household vehicles.
93. HHZIP: This is the ZIP code for the place where the subject resides. If MAILHOME (D6) is 1, it is the ZIP (D9) reported in MAILZIP (D4/D5). Else, it is the ZIP reported in ZIP (D9) or HMZIP (M11). However, the geocoded ZIP if present should be used instead of either the ZIP in D4, D9 or M11.
94. HH_ONTD: Total number of household members on this travel day trip including subject. Derived from the sum of ONTD_P1 through ONTD_P14 (derived). In 1995 this variable was named NUMONTRP.
95. HOMEGEO: Indicates the geocoding level to which the home address was geocoded. Code the variable as follows:
 - 1 An exact street address was used to geocode the address.
 - 2 The nearest intersection was used to geocode the address.
 - 4 The Zip code centroid was used to geocode the address.
96. HOMELAT: The latitude for the home address.
97. HOMELONG: The longitude for the home address.
98. HOUSEID*: The nine-digit household ID number.
99. HTEEMPDN: Jobs per square mile at the tract level provided by Claritas.
100. HTHRESDN: Housing units per square mile at the tract level provided by Claritas.
101. HTHNRNT: Percent renter-occupied housing at the tract level provided by Claritas.
102. HTHUR: Census tract urban/rural code provided by Claritas.
103. HTPPOPDN: Population density (persons per square mile) at the tract level provided by Claritas.

104. IMPTAGE: Subject's age (AGE (C8)) was imputed.
105. IMPTENTM: The end time (ENDHOUR, ENDMIN, ENDAMPM (G17)) for a travel day trip was imputed.
106. IMPTHOWN: Whether the home was owned or rented (HOMEOWN (C2)) was imputed.
107. IMPHTHTYP: The type of home (HOMETYPE (C1)) the household lives in was imputed.
108. IMPTMILE: The trip distance (TRIPDIST, TRIPUNIT (G40)) for a travel day trip was imputed.
109. IMPTMIN: The travel time (TRVLHR, TRVLMIN (G42)) for a travel day trip was imputed.
110. IMPTPHON: The values of OTHRPHON (C15) and NONVOICE (C16) were modified to agree with each other.
111. IMPTRACE: The race (HH_RACE1 through HH_RACE8 (C7)) for the household respondent was imputed.
112. IMPTSEX: The subject's gender (SEX (C8)) was imputed.
113. IMPTSTTM: The start time (STRTHR, STRTMIN, STRTAMPM (G16)) for a travel day trip was imputed.
114. IMPPTTPUB: Presence of public transportation on this travel day trip has been imputed. Code the value of the variable as 1 (yes) if TRPTRANS (G34), HOWPUB1-5 (G35), or HOWFRP1-5 (G38) is code 10, 11, 16, 17 or 18. Else, code it as 2 (no).
115. IMPTTTRIP: An entire travel day trip (Section G trip) was imputed.
116. INCM_P1 through INCM_P14: Person income derived from NONFMINC (M24) and PERINC (M25 through M32). If PERINC is missing, randomly pick either the lower or upper range from NONFMINC.
117. INC_P1 through INC_P14*: Indicates whether the subject's income is not included in HHFAMINC (derived). Derived from HHMINC1 through HHMINC15 (M23).
118. INDVINC: Income of this household member, if reported separately. Derived from NONFMINC (M24) and PERINC (M25 through M32). If PERINC is missing,

randomly pick either the lower or upper range from NONFMINC. In 1995 this variable was named NONFMINC.

119. LANG: Language the household interview was conducted in. Derived from variable SCRN.ENGLSPAN.

120. LIF_CYC: The life cycle code for the household. The variable is derived as follows:

- 01 Household has one adult, no children and no retired persons.
- 02 Household has 2 or more adults, no children and no retired persons.
- 03 Household has one adult and the youngest child is 0 to 5 years old.
- 04 Household has 2 or more adults and the youngest child is 0 to 5 years old.
- 05 Household has one adult and the youngest child is 6 to 15 years old.
- 06 Household has 2 or more adults and the youngest child is 6 to 15 years old.
- 07 Household has one adult and the youngest child is 16 to 21 years old.
- 08 Household has 2 or more adults and the youngest child is 16 to 21 years old.
- 09 Household has one retired adult and no children.
- 10 Household has 2 or more adults, at least one is retired and no children.

Classify each household member as adult or child and determine retirement status for adults. Then, use the adult, child and retired classification of each household member to classify the household into one of the 10 categories above.

An adult is defined as a household member that is 18 and over. A child is a household member 21 years or younger. A household member between the ages of 18 and 21 is classified as an adult or child depending on his/her relationship to the household respondent. If age is missing, use the imputed age. A household member is retired if PRMACT=6 and is not retired if PRMACT > 0, but PRMACT is not equal to 6.

If retirement status is missing, use age to determine retirement status. If age is 65 or more, consider the person retired. If less than 65, consider the person not retired. Assign these households to Life Cycle categories 1, 2, 9 or 10.

Use the following rules to determine whether the household member is an adult or child:

1. If household member's age is less than 18 years, classify a household member as a CHILD regardless of value of REL_Pn (C8) and classify household member's CHILD AGE in the appropriate group 0-5, 6-15, or 16-21.
2. If household member's age is greater than 21 years, classify a household member as an ADULT regardless of value of REL_Pn.
3. If household member's age is 18-21 and REL_Pn= 3 (CHILD), classify household member as CHILD and classify household member's CHILD AGE in

- 16-21 group.
4. If household member's age is 18-21 and household member is the household respondent (REL_Pn=1) and any other household member is coded as PARENT to the household respondent (REL_Pn=4), classify subject household member as CHILD and classify subject's CHILD AGE in 16-21 group. If no other household member is PARENT, classify subject household member as ADULT.
 5. If household member is BROTHER/SISTER to the household respondent (REL_Pn=5) and any other household member is coded as PARENT to the household respondent (REL_Pn=4), classify subject household member as CHILD and classify subject's CHILD AGE in 16-21 group. If no other household member is PARENT, classify subject household member as ADULT.
 6. If household member's age is 18-21 and household member is OTHER RELATIVE (REL_Pn=6) and any other household member is coded as PARENT to the household respondent (REL_Pn=4), classify subject household member as CHILD and classify subject's CHILD AGE in 16-21 group. If no other household member is PARENT, classify subject household member as ADULT.
 7. If household member's age is 18-21 and household member is a NON-RELATIVE (REL_Pn=8) to the household respondent, and any other household member is over 21 and is a SPOUSE (REL_Pn= 2) or any other household member is over 21 and is an UNMARRIED PARTNER (REL_Pn= 7), then classify the household member as a CHILD in the 16-21 age group; otherwise classify the household member as an ADULT.
 8. If household member's HH_RELAT is missing: If age is <18, classify adult status of household member as CHILD and classify CHILD AGE according to age. If age is >21 classify adult status as ADULT. If age is 18-21, and any other household member is coded as PARENT, then classify subject household member as CHILD and CHILD AGE in 16-21 age group. If no other household member is classified as PARENT classify adult status of subject household member as UNKNOWN.
 9. Households with HH_RELAT=2 (SPOUSE) or 7 (UNMARRIED PARTNER) between the ages of 18 and 21 that are not classified should be classified as ADULTS.
121. LSTTRDAY: Number of days since last trip before travel day. Derived from LSTTRDT2 (derived), LASTRPNU and LASTRPUT (G15) and TDAYDAT2 (derived). Use information from LSTTRDT2 and G15 to determine when the subject last took a trip and then calculate the difference between this date and the assigned travel day.
122. LSTTRDT: Month and year of last trip before travel day. Derived from LASTRPMM, LASTRPYY (G14). Not reported if month or year is missing (YYYYMM).

123. LSTTRDT2: Date of last trip before travel day. Derived from LASTRPDD, LASTRPMM, LASTRPYY (G14). Not reported if day, month or year is missing (YYYYMMDD).
124. LSTTRUNT*: Units reported for time since last trip before travel day. Derived from LASTRPUT (G15).
125. MAILHOME: Pre-household interview letter was mailed to the household and not returned.
126. MAKECODE: NASS vehicle make code. Derived from MAKECODE (B2), E_MAKE (L7), and odometer readings.
127. MAKENAME: NASS description of vehicle make in vehicle file obtained from NHTSA. Derived from VEHIMAKE (B2), E_VMAKE (L7), and odometer readings.
128. MILELIMIT: Indicates that ANNMILES (derived) was capped at 200,000.
129. MODLCODE: NASS vehicle model code. Derived from MODLCODE (B2), E_MODL (L7), and odometer readings.
130. MODLNAME: NASS description of vehicle model in vehicle file obtained from NHTSA. Derived from VEHIMODL (B2), E_VMODL (L7), and odometer readings.
131. MSACAT: MSA category for the geocode for the household's home address. The source used for MSA's was the 1999 Metropolitan Areas: Cartographic Boundary Files. File ma99_99.shp from [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/MA1999.HTML](http://www.census.gov/geo/www/cob/ma1999.html). The MSACAT variable was derived using information on population and the presence of transit. The variable is derived as follows:
- 1 MSA or CMSA of 1 million or more with rail.
 - 2 MSA or CMSA of 1 million or more and not in category 1.
 - 3 MSA of less than 1 million.
 - 4 Not in a MSA.
132. MSASIZE: Population size category of the MSA for the household's home address. The source used was the Total Population by MSA from Census 2000 STF1. The variable is derived as follows:
- 1 MSA of less than 250,000.
 - 2 MSA of 250,000 to 499,999.
 - 3 MSA of 500,000 to 999,999.
 - 4 MSA or CMSA of 1,000,000 to 2,999,999.
 - 5 MSA or CMSA of 3 million or more.
 - 6 Not in a MSA.

133. NBIKETRP*: The variable was obtained from BIKETRIP (L4)
134. NONHHCNT: Number of non household members on travel day trip. Derived from NONHHACC (G46) and NONHHCNT (G47). If G46 = 2, then put in a 0 for count.
135. NUMADLT: Count of adults, household members 18 and older in household. Derived by using the age reported in AGE (C8) and AGERANGE (C10). If both C8 and C10 are missing, use the imputed age.
136. NUMONTRP: Total count of people on travel day trip, including subject. Derived by adding HH_ONTD (derived) and NONHHCNT(derived).
137. OCCAT*: Subject's occupation. Derived from JOBCATEG (E7).
138. OD_READ1: The first odometer reading. This is derived from the reading collected during the person interview (OD_READ (N3)) or through a subsequent call to the household.
139. OD_READ2: The second odometer reading. This is derived from readings obtained through the US mail, faxes, Internet, incoming telephone calls from the household, or outgoing telephone calls to the household.
140. ONTD_P1 through ONTD_P14: Household member was on the travel day trip. Derived by assuming the subject was on the trip and adding anyone else reported in WHOACC1 through WHOACCN (G45).
141. OUTOFTWN*: Indicates whether the subject was out of town for the entire travel day. Derived from OUTOFTWN (G9). Display the variable for on each travel day trip.
142. PERINDOW: The day of week that corresponds to the date the person interview was completed.
143. PERINDT2: The date the person interview was completed (YYYYMMDD).
144. PERSONID: A unique two-digit number for each household member often appended to the household ID number. Derived from the last two digits of the person's identification number.
145. PRCASEID*: The 11 digit person ID derived from ENUMID.
146. PRMDRVR1: Household vehicle that subject is primary driver of, derived from WHOMAIN (C12) and B2 (VEHID).

147. PRMDRVR2: A second household vehicle that subject is primary driver of, derived from WHOMAIN (C12) and B2 (VEHID)
148. PRMDRVR3: A third household vehicle that subject is primary driver of, derived from WHOMAIN (C12) and B2 (VEHID).
149. PROXCAT: Breakdown of proxy interviews by age of the subject. The variable is derived using AGE (C8), AGERANGE (C10) and the final completion result code for the subject. If age is missing, use imputed age.
- 1 Proxy for subject who is 13 years or younger.
 - 2 Proxy for subject who is 14 or 15 years old.
 - 3 Proxy for subject who is 16 or 17 years old.
 - 4 Proxy for subject who is 18 years or older.
 - 5 No proxy, interview completed by subject
150. PSGR_FLG: Subject was passenger on travel day trip that involved only POV modes. Derived from ONTD_P1 (derived) and DRVR_FLG (G49). Add the variable only to POV trips where person was not a driver, but was on the trip. POV trips are those where TRPTRANS (G34) has a value of 1 through 7.
151. RAIL: Indicates whether the household is located in a MSA with rail. Derived from MSACAT (derived). If MSACAT is 1, RAIL is 1 (MSA has rail). Else, RAIL is 2.
152. RATIO16V: Ratio of household members 16+ to number of household vehicles. Derived from AGE (C8) and HHVEHCNT (derived). If age is missing use the imputed age.
153. RATIO16W. Ratio of household members 16+ to number of workers in the household. Derived from AGE (C8) and WRKCOUNT (derived). If age is missing use the imputed age.
154. RATIOWV: Ratio of number of workers to the number of vehicles in the household. Derived by dividing WRKCOUNT (derived) by HHVEHCNT (derived).
155. READATE1: Date of the 1st odometer reading. Derived from OD_MONTH, OD_YEAR (N3) obtained during the person interview and subsequent calls to the household. Deliver in YYYYMM format.
156. READATE2: Date of the 2nd odometer reading. This is derived from reading dates obtained through the US mail, faxes, Internet, incoming telephone calls from the household, or outgoing telephone calls to the household. Deliver in YYYYMM format.
157. READAT1: Date of the 1st odometer reading. Derived from OD_MONTH, OD_YEAR, OD_DAY (N3) obtained during the person interview and subsequent

calls to the household. Deliver in YYYYMMDD format.

158. READAT2: Date of the 2nd odometer reading. This is derived from reading dates obtained through the US mail, faxes, Internet, incoming telephone calls from the household, or outgoing telephone calls to the household. Deliver in YYYYMMDD format.
159. REL_P1 to REL_P14*: The household member's relationship to the household respondent. Derived from HH_RELAT (C8). In 1995 this variable was named P1_REL to P14_REL.
160. RESP_CNT: Count of total responding persons in the household, all ages. A responding person is one who completed a person-level interview (either by self or proxy). Derived by counting the number of persons with a final result code beginning with a "C."
161. R_AGE*: Age of subject. Derived from AGE (C8). Do not put in the imputed age. Leave values as -7, -8 and -9.
162. R_AGEWGT: Age of subject used in weighting. Replace values in R_AGE that are -7, -8 or -9 with the imputed age values.
163. R_RELAT*: Relationship of subject to household respondent. Derived from HH_RELAT (C8).
164. R_SEX*: Gender of subject. Derived from SEX (C8).
165. SEX_P1 to SEX_P14*: The gender of the subject. Derived from SEX (C8). In 1995 this variable was named P1_SEX to P14_SEX.
166. SMPLAREA: Indicates the add-on area where the household resides. Cases in the national sample that cannot be allocated to one of the 9 add-on areas should be put in category 10.
Code 01=Baltimore Area (derive from variables SITEID and SAMPL).
Code 02=Des Moines (derive from variables SITEID and SAMPL).
Code 03=Hawaii (derive from variables SITEID and SAMPL).
Code 04=Kentucky (derive from variables SITEID and SAMPL).
Code 05=Lancaster (derive from variables SITEID and SAMPL).
Code 06=New York (derive from variables SITEID and SAMPL).
Code 07=Oahu (derive from variables SITEID and SAMPL).
Code 08=Texas (derive from variables SITEID and SAMPL).
Code 09=Wisconsin(derive from variables SITEID and SAMPL).
Code 10=Cases where SAMPSRCE is main and not in categories 1 through 9.
167. SMPLFIRM: Holds the name of the firm that collected the data. Code 1 for Westat

if SAMPSRCE is Main or Add-on. Else, code 2 for Morpace.

168. SMPLSRCE: Indicates if the case was in the main national sample or an add-on sample. Code as follows:
Code 01=National sample if SAMPSRCE is main.
Code 02=Baltimore Add-on (use SITEID).
Code 03=Des Moines Add-on (use SITEID).
Code 04=Hawaii Add-on (use SITEID).
Code 05=Kentucky Add-on (use SITEID).
Code 06=Lancaster Add-on (use SITEID).
Code 07=New York Add-on (use SITEID)..
Code 08=Oahu Add-on (use SITEID).
Code 09=Texas Add-on (use SITEID).
Code 10=Wisconsin Add-on (use SITEID).
169. STAT_P1 to STAT_P14: The final response status for each household member. In 1995 this variable was named P1_STAT to P14_STAT. The variable is derived as follows:
- 1 Interview completed by subject. Includes result code CS.
 - 2 Interview completed by proxy. Includes result code CP.
 - 3 Language or communication barrier. Includes result codes LH, LM, LP.
 - 4 Subject refused. Includes result codes R3, RB, RM, RX.
 - 5 Maximum Calls made. Includes result codes MC, ML, MR, MT.
 - 6 Interview not Possible: Subject deceased.
 - 7 Other non-interview. Includes result codes NF, NO, NS.
 - 8 Unable to contact. Includes result codes NR and NW.
170. STRTSAS: Travel day trip start time in SAS. Derived from STRTHR, STRTMIN, STRTAMPM (G16).
171. STRTTIME: The start time of a travel day trip (STRTHR, STRTMIN, STRTAMPM (G16)) reported in military time (0001 through 2400 hours).
172. SUM_STAT: The variable indicates the households where all adult persons have completed a person interview. If all household members have a result code that begins with C, code as 1. Else, code as 2.
173. TDAYDAT2: The day, month and year for the household's assigned travel day (YYYYMMDD).
174. TDAYDATE: The month and year for the household's assigned travel day (YYYYMM). In 1995 this variable was named TDAY_MON, TDAY_YR.
175. TDBOA911: Indicates whether the travel day was before or on or after September

- 11, 2001. Derived from variable TDAYDAT2. The variable is 1 if the travel day was before 9/11/01 and 2 if it was on or after 9/11/01.
176. TDCASEID: The 13 digit travel day trip ID derived from PRCASEID (derived) and DTRPNUM.
177. TDMSDTRP: Indicates missed travel day trips.
- The variable is 1 if the missed trip was reported by the subject after all other travel day trips were rostered. Derived from DP_FLAG.
 - The variable is 2 if the missed trip was not reported by the subject but reported by a subsequent household member who indicated the subject was on the trip too.
178. TDTRPNUM: The travel day trip number for the subject. This is derived from the last two digits of the trip identification number.
179. TDWKND: Variable indicates if the travel day trip fell on a weekend. Derived from TRAVDAY (derived) and STRTTIME (derived). Weekend is defined as all trips starting between 1800 hours on Friday and 2400/0000 hours on Sunday.
180. TELBFM*: The number of additional non-cellular household telephone numbers used exclusively for business, fax, or as computer modems. Does not include the household phone that was sampled. Derived from NONVOICE (C16).
181. TELCELL*: The number of cellular phones used by household members. Derived from HHNUMCEL (C14).
182. TELLAND: Total number of landline phones. Derived from OTHRPHON (C15) + 1.
183. TELTOTL: Total number of land lines and cellular phones including those used exclusively for business, fax, or as modem. Derived by adding TELLAND (derived) and TELCELL (derived).
184. TELTYPE: Indicates whether the sampled telephone number is used for home use only or for both home and business use. Derived from SFONEUSE (A1).
185. TPOVRLAP: Code 1 if this travel day trip overlaps with an entire or portion of a trip reported during the enumeration of travel period trips.
186. TRACC1 through TRACC5*: The transportation mode (access) used to get to public transportation. Derived from HOWPUB1-5 (G35).
187. TRACCTM: Time taken to get to public transportation on travel day trip, converted to minutes. Derived by converting LONGTO, LONGMIN (G36) to minutes.

188. TRAVDAY: The day of week for the household's assigned travel day.
189. TREGR1 through TREGR5*: The transportation mode (egress) used to get from public transportation to the final destination. Derived from HOWFRP1-5 (G38).
190. TREGRTM: Time taken to get from public transportation, converted to minutes. Derived from LONGFR and LONFMIN (G39).
191. TRPBLKS: Travel day trip distance if reported in blocks by the respondent. Derived from TRIPDIST and TRIPUNIT (G40). If TRIPUNIT is 1, then code the value in TRIPDIST in TRPBLKS.
192. TRPDIST*: Travel day trip distance reported in miles or blocks. Code the value in TRIPDIST (G40).
193. TRPMILES: Travel day trip distance in miles, whether originally reported in miles or blocks. Derived from TRIPDIST and TRIPUNIT (G40). If TRIPUNIT is in blocks, convert 9 blocks to 1 mile.
194. TRVL_MIN: Time to complete entire travel day trip in minutes. Derived from TRVLHR and TRVLMIN (G42).
195. TRWAITTM: Time spent waiting for public transportation on travel day trip in minutes. Derived from WAITMINU and WAIT_MIN (G37).
196. URBAN: The household's home address is in an urbanized area. The source used is Urban Areas: 2000 Urbanized Areas: Cartographic Boundary Files. File ua00_d00.shp from [HTTP://WWW.CENSUS.GOV/GEO/WWW/COB/UA2000.HTML](http://www.census.gov/geo/www/COB/UA2000.HTML). The categories are:
- 1 = Urban Area, in Urban Cluster
 - 2 = Urban Area
 - 3 = Urban Area, surrounded by Urban Areas
 - 4 = Not in an Urban Area
197. URBRUR: The household's home address is in an urban or rural area. Derived from URBAN. If URBAN is 1, 2 or 3, code as 1 (Urban). Else, code as 2 (Rural).
198. VEH12MNT: The variable indicates whether the vehicle was received in the last 12 months. If VEHOWNMO is 12 months or less, code 1 for yes. Else, code 2.
199. VEHID: The household vehicle number derived from the last two digits of the 11 digit vehicle ID in CATI.
200. VEHMLCAT*: The variable was obtained from VEHMILE2 (L9b).

201. VEHOWNMO: How long the vehicle has been owned, converted to months. Derived from VEHOWNED and OWNUNIT (L8).
202. VEHTYPE*: This is derived from variable E_VTYPE (L7).
203. VEHUSED*: The variable was obtained from VEHID (G31).
204. VEHYEAR: Vehicle year, derived from VEHYEAR (B2), E_VYEAR (L7) and odometer readings.
205. VHCASEID*: The 11 digit vehicle identification number derived from VEHIID in CATI.
206. VTYPFUEL: This variable is derived from VEHTYPE and FUELTYPE. The variable is provided by ORNL.
207. WEBWHER: Location from where the Internet is used. Derived from variables WEBACC (M1), WEBHOME (M3), WEBWORK (M3) and WEBOTHER (M3).
208. WHERBORN: Region of birth, derived from BORNWHER.
- | | |
|----|--|
| 1 | US-Territories. |
| 2 | Canada. |
| 3 | Mexico. |
| 4 | Central America. |
| 5 | South America. |
| 6 | Europe (includes Scandinavia/Polar Regions). |
| 7 | Eastern Europe & Russia/Formal USSR |
| 8 | Middle East. |
| 9 | Africa (is both Sub and North Africa). |
| 10 | Indian Subcontinent . |
| 11 | East Asia. |
| 12 | Pacific Islands/Australia. |
| 13 | Caribbean/Atlantic Islands. |
209. WHERESP*: Description of travel day trip destination. Derived from WHERE and WHEREOS (G12).
210. WHYFROM: Travel day trip purpose for the previous trip. Derived from AWAYHOME (G25) or WHYTRP90 (G26) for previous trip. Note the addition of code 24 (daycare), which is not on the questionnaire.
211. WHYTO: Travel day trip purpose for the current trip. Derived from AWAYHOME (G25) or WHYTRP90 (G26) for current trip. Note the addition of code 24

(daycare), which is not on the questionnaire.

212. WHYTRP01: Detailed travel day trip purpose. Derived from AWAYHOME (G25) and WHYTRP90 (G26).

213. WHYTRP1S: Travel day trip purpose summary. The variable is derived as follows:

- 1 To work. If G25/G26 is 11.
- 2 Work related. If G25/G26 is 13 or 14.
- 3 School. If G25/G26 is 21 or 23.
- 4 Religious. If G25/G26 is 22
- 5 Medical/dental. If G25/G26 is 30.
- 6 Shopping. If G25/G26 is 41 or 43
- 7 Other family and personal. If G25/G26 is 24, 40, 42 or begins with a 6.
- 8 Social and recreational. If G25/G26 begins with a 5
- 9 Eat meal. If G25/G26 begins with an 8
- 10 Serve passenger. If G25/G26 begins with a 7.
- 11 Return to work. If G25/G26 is 12.
- 12 Return home. If G25/26 is 1 or 17.
- 13 Trip purpose does not fall in categories 1 through 12.

214. WHYTRP90: Travel day trip purpose codes as defined in the 1990 NPTS.

215. WKCITYA: Name of the city where the subject's work place is located. Derived from the geocoded address. The source used was the 2000 Incorporated Places/ Census Designated Place, Geographic Data Technology (GDT) Dynamap/2000. A NIP indicates "not in place," NA indicates "unable to identify a city name".

216. WKCNFIPS: County FIPS Code for the geocode for the subject's work address. The source used was the United States Census Bureau State and County: 2000 County and County Equivalent Areas: Cartographic Boundary Files. A 99 indicates that we were unable to code to the county level.

217. WKCNTYA: Name of the county where the subject's work place is located. Derived from the geocoded address. The source used was the United States Census Bureau State and County: 2000 County and County Equivalent Areas: Cartographic Boundary Files. A NA indicates that we were unable to identify a county name.

218. WKCTFIPS: City FIPS Code for the geocode for the subject's work address.

219. WKR_P1 to WKR_P14: Derived from WORKER (derived). For household members who did not complete a person interview the value is the response provided in WRKR (C8). In 1995 this variable was named P1_WKR to P14_WKR.

220. WKSTFIPS: State FIPS Code for the geocode for the subject's work address. The source used was the United States Census Bureau State and County: 2000 County and County Equivalent Areas: Cartographic Boundary Files. File co99_d00.shp from <http://www.census.gov/gEO/www/COB/CO2000.HTM>. A -9 indicates that we were unable to geocode the state where the workplace is located.
221. WORKCT: Census Tract for the geocode for the subject's work address. The source used was the GDT Dynamap 2000 (from Census 2000 TIGER/Line files). A 9999 indicates that we were unable to identify a Census Tract.
222. WORKER: Indicates whether the subject is a worker. The subject is a worker if WRKR (C8) = 1, PRMACT (E3) = 1 or 2, or PAYPROF (E4) = 1.
223. WORKGEO: A description of the information used to geocode the work address. Code the variable as follows:
- 1 An exact street address was used to geocode the address.
 - 2 The nearest intersection was used to geocode the address.
 - 3 A landmark was used to code the address.
 - 4 The address was geocoded to the ZIP code centroid.
 - 5 Information on the employer was used to geocode the address.
 - 6 The address was geocoded to the city/county centroid or the county equivalent area.
 - 7 The address was geocoded to the state centroid.
 - 8 The address was not geocoded or was international.
224. WORKLAT: The latitude for the work address.
225. WORKLOC: The variable indicates whether the subject worked from home, a fixed work place or had some other work arrangement. The variable is derived as follows:
- 1 Works only at a workplace. If E10 (WKSTNAME, WKCITY, WKSTATE, WKZIP) has a street address, city, state or ZIP and WKFMHM2M (E19) is 2.
 - 2 Works only at home. If E10 (WKSTNUM) is "home."
 - 3 No fixed workplace. If E10 (WKSTNUM) is "none."
 - 4 Home and work. If E10 (WKSTNAME, WKCITY, WKSTATE, WKZIP) has a street address, city, state or ZIP and WKFMHM2M (E19) is 1.
226. WORKLONG: The longitude for the work address.
227. WORKSTAT: State in which subject's workplace is located. Derived from the geocoded workplace address.
228. WORKZIP: Zip Code for the jurisdiction in which the subject's workplace is located.

Derived from the geocoded workplace address.

229. WRKCOUNT: The number of household members that are workers. Derived by summing all occurrences where WKR_P1 through WKR_P14 is 1.
230. WRKR_P1 to WRKR_P14*: Indicates whether the subject had a job at the time of the household interview. Derived from WRKR (C8).
231. WTHHFIN: Household weight for households where at least 50 percent of household members 18 and over completed a person interview.
232. WTHHNTL: The household weight for 50 percent households provided in the Version 2 delivery in variable WTHHFIN.
233. WTPERFIN: Person weight for households where at least 50 percent of household members 18 and over completed a person interview.
234. WTPRNTL: The person weight for 50 percent households provided in the Version 2 delivery in variable WTPERFIN.
235. WTTRDFIN: Travel day trip weight for persons in households where at least 50 percent of household members 18 and over completed a person interview.
236. WTTRDNTL: Travel day trip weight for 50 percent households provided in variable WTTRDFIN in Version 2.
237. YRMLCAP: Flag indicates that the variable YEARMILE (L5) was capped at 200,000 miles. In 1995 this variable was named YMILEFLG.
238. YRMLCAT*: The variable was obtained from YEARMIL2 (L5b).
239. YRTOUS*: Year the subject entered the United States. Derived from variable WHENTOUS (M10).