2013 Mid-Region Travel Survey: Lookup Table

Transportation Secure Data Center

Revised: 2016-12-05

Summary Statistics

Travel Diary	Households	2,471
	Persons	5,214
Vehicle GPS	Households	
	Vehicles	
	Days of Travel	
	GPS Frequency (Hz)	
Vehicle OBD	Households	
	Vehicles	
	Days of Travel	
	GPS Frequency (Hz)	
Wearable GPS	Households	701
	Persons	1,023
	Days of Travel	2,536
	GPS Frequency (Hz)	1

Blank fields indicate data is not present for this study.

Survey Tables

survey_vehicles

The survey_vehicles table contains detailed vehicle information for the vehicles described in the survey portion of the study (a subset of the total vehicles in the study). Of the vehicles described, a smaller portion also contain GPS travel data.

Name	Data Type	Comment
sampno	numeric	Unique household identifier
vehno	smallint	Vehicle number
year	text	Year of vehicle
body	smallint	Body of vehicle: 1- Automobile/Car/Station wagon, 2- Van (mini/cargo/passenger), 3- SUV/Pickup truck, 6- RV (recreational vehicle), 7- Motorcycle/Motorbike, 97- Something else, -7=RF
body_o	text	Body of vehicle, other
fuel	smallint	Type of fuel: 1- Gas, 2- Diesel, 3- Biodiesel, 4- Hybrid, 5- Plug-In hybrid (gas/electric such as Chevy Volt), 6- Plug-In electric (such as Nissan Leaf), 7- Flex fuel, 97- Some other fuel, -7=RF
fuel_o	text	Type of fuel, other

vehwt0	double precision	Vehicle weights
geom*	geometry	Geometric point data where location= home

survey_place

The survey_place table contains records of each place visited during the sample period. The place number is unique to each person.

Name	Data Type	Comment
sampno	numeric	Unique household identifier
perno	smallint	Person identifier
plano	smallint	Place number
locno	integer	Location number
tripdate	text	Assigned travel day
travday	double precision	Travel day of week: 2- Monday, 3- Tuesday, 4- Wednesday, 5- Thursday, 6- Friday
county_id	character varying	County FIPS ID
ptype	text	Place type: 1- Home, 2- Work, 3- School, 4- Second work, 5- Transit stop, 6- Volunteer, 7- Other
arr_hr	double precision	Arrival hour
arr_min	double precision	Arrival minute
mode	smallint	Transportation mode: 1- Walk, 2- Bike, 3- Auto/Van/Truck (as the driver), 4- Auto/Van/Truck (as a passenger), 5- Public bus, 6- Dial-A-Ride/Paratransit, 7- Rail runner, 8- Taxi/Limo, 9- School bus, 10- Motorcycle/Moped, 11- Private shuttle/bus, 12- Carpool/Vanpool (SECA vans, etc.), 97- Something else
mode_other	text	Transportation mode, other
party	smallint	Number of people on trip (not including respondent)
hhparty	integer	Number of other household members on trip
pertp	text	Concatenation of two digit person numbers on trip (not including respondent)
nonhhmtp	smallint	Number of non-household members on trip
dep_hr	double precision	Departure hour
dep_min	double precision	Departure minute
tpurp	smallint	Trip purpose: 1- Home activities, 2- Workplace activities, 3- School/Daycare related, 4- Retail shopping, 5- Dining at restaurant, 6- Visiting hospital/doctor, 7- Recreational activities, 8- Banking/Other office related, 9- Visiting another private residence, 10- Visiting a place of worship, 11- College/University, 12- Pick-up/Drop-off passenger, 13- Change modes, 14- Loop for exercise (e.g. running, bicycling, or going for a walk), 97- Other (specify), -7=RF, -8=DK
tpurp_o	text	Trip purpose, other
destination_ygov	smallint	Exit vehicle: 1- Yes, 2- No , -7=RF, -8=DK, -9=Not ascertained
place_loc	smallint	Parking location: 1- At this location, 2- Off-Site, 3- Did not park, -7=RF, -8=DK, -9=Not ascertained
prkty	smallint	Parking description: 1- Surface parking lot, 2- Parking garage, 3- On-street, 4- Driveway, 5- Residential garage, 97- Something else, -7- RF, -8- DK, -9=Not ascertained

prkty_o	text	Parking description, other
fare	text	Transit fare: Type 1: 1, 2, or 3-day pass, 4- One-way fare, 5- 1-month, 6- 3, 6, or 12-month pass, 9- Rail runner, 10- UNM/UNMH/CNM free ride student, 11- UNM/UNMH/CNM free ride faculty/staff, 12- TMA/TANF pass, 97- Other (specify), -7=RF, -8=DK
fare_o	text	Fare description, other
faretype	text	Fare type
faretype_o	text	Fare type, other
farec	text	Transit fare cash
paypk	smallint	Pay to park
pkamt	text	Pay to park amount
pkunt	text	Pay unit: 1- Hour, 2- Day, 3- Week, 4- Month, 5- Semester, 6- Year, -7=RF
pkunt_o	text	Other, pay unit
act_dur	double precision	Activity duration
travtime	text	Travel time
distance	text	Travel distance (uses route information from Google maps)
locname*	text	Location name
address*	text	Address
city	text	City name
state	text	State name
zipcode	text	Zip code
longitude*	double precision	X coordinate
latitude*	double precision	Y coordinate
trpwt0	double precision	Place/Trip weight range: 1,463- 466,536
geom*	geometry	Geometric point data of place location

survey_person

The survey_person table contains personal information from the persons who completed the travel survey (a subset of the total persons who participated in the study). Of the persons who completed the survey, a smaller portion records also contain GPS travel data.

Name	**Data Type**	**Comment**
sampno	numeric	Unique household identifier
perno	smallint	Person identifier
age*	smallint	Age: 1 = 0-9, 2 = 10-19, 3 = 20-29, 4 = 30-39, 5 = 40-49, 6 = 50-59, 7 = 60-69, 8= 70-79, 9 = 80-89, 10 = 90-99, 99= 99+, 998 = DK, 999 = RF (Column only available in web download).
prov_est_age	smallint	Data provider binned age estimates: 1- 0-4 years old, 2- 5-15 years old, 3- 16-17 years old, 4- 18-64 years old, 5- 65-75 years old, 6- 76+ years old, -7=RF, -8=DK
nrel_agebin	integer	NREL derived age bins for public distribution: 1= ¡16 YO, 2= 16-25 YO, 3= 26-35 YO, 4= 36-45 YO, 5= 46-55 YO, 6= 56-65 YO, 7= 66-79 YO, 8= 80+ YO, 999= DK/RF
gender	smallint	Gender: 1- Male, 2- Female, -7=RF, -8=DK

relation	smallint	Relationship: 1- Self, 2- Spouse, 2- Unmarried partner, 3- Son/Daughter, 4- Father/Mother in-law, 5- Brother/Sister, 6- Grandparent, 7- Grandchild, 8- Live-in help, 9- Roommate/Other non-related, 10- Other relative, -7=RF, -8=DK
driver_license	smallint	License
race	smallint	Race: 1- White, 2- African American, Black, 3- Asian, 4- American Indian, Alaskan Native, 5- Native Hawaiian or Pacific Islander, 6- Multiracial, 97- Some Other Race, -7=RF, -8=DK
race_o	text	Other, Race
hisp	smallint	Hispanic origin
employment	smallint	Employed: 1- Yes, 2- No, -7=RF, -8=DK, -9=Not ascertained
employment_type	smallint	Employer type: 1- Self-Employed, 2- Private employer, 3- State/Local government, 4- Federal government- Civilian, 5- Military, 97- Other, -7=RF
employment_other	text	Employer type, Other
job_count	smallint	Number of jobs
empl_status	text	Employment status: 0- Worker (including self-employed), 1- Retired, 2- Homemaker, 3- Unemployed but looking for work, 4- Unemployed, not seeking employment, 5- Student (part-time or full-time), 97- Something else, -7=RF, -8=DK
empl_status_other	text	Employment status, other
empl_place	text	Work location
commute_mode	smallint	Mode of transport to work: 1- Walk, 2- Bike, 3- Auto/Van/Truck (as the driver), 4- Auto/Van/Truck (as a passenger), 5- Public bus, 6- Dial-A-Ride/Paratransit, 7- Rail-Runner, 8- Taxi/Limo, 9- School bus, 10- Motorcycle/Moped, 11- Private shuttle/bus, 12- Carpool/Vanpool, 13- Does not travel to school, 97- Something else, -7=RF, -8=DK
commute_mode_other	text	Mode to work, other
walk_trips_empl	text	Walk to work in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
bike_trips_empl	text	Bike to work in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
carpool_trips_empl	text	Carpool to work in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
transit_trips_empl	text	Transit to work in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
transit_trips_school	smallint	Transit to school in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
empl_tele	text	Telecommuting offered at workplace
empl_hours	text	Number of hours worked at primary job
empl_hours2	text	Number of hours worked at second job
empl_hours3	text	Number of hours worked at third job
empl_start_time	text	Work start time
empl_end_time	text	Work end time
empl_sched	text	Work schedule
empl_commute	text	Work days commute: 1- 1 day per week, 2- 2 days per week, 3- 3 days per week, 4- 4 days per week, 5- 5 days per week, 6- 6 days per week, 7- 7 days per week, -7=RF, -8=DK
compr	text	N/A
compr_o	text	N/A

industry	smallint	Industry: 11- Agriculture, forestry, fishing and hunting, 21- Mining/Quarrying/Oil and gas extraction, 22- Utilities, 23- Construction, 31- Manufacturing, 42- Wholesale trade, 44- Retail trade, 48- Transportation and warehousing, 51- Information, 52- Finance and insurance, 53- Real estate/rental/leasing, 54- Professional/Scientific/Technical services, 55- Management of companies and enterprises, 56- Administration and support and waste management and remediation services, 61- Educational services, 62- Healthcare and social assistance, 71- Arts/Crafts/Entertainment/Recreation, 72- Food and drinking establishments, 81- Other services (except public administration), 92- Public administration, 97- Something else, -7=RF, -8=DK
industry_other	text	Industry, other
student	smallint	Student status: 1- Yes (full-time), 2- Yes (part-time), 3- No, -7=RF, -8=DK
school_level	smallint	Level of School: 1- Daycare, 2- Nursery/Pre-School, 3- Kindergarten to grade 8, 4- Grade 9 to 12, 5- Vocational/Technical school, 6- 2-Year college (community college), 7- 4-Year college or university, 8- Graduate school/professional, 97- Something else, -7=RF, -8=DK
school_other	text	Level of school, other
school_location	smallint	Home schooled
school_mode	smallint	Mode of transport to school: 1- Walk, 2- Bike, 3- Auto/Van/Truck (as the driver), 4- Auto/Van/Truck (as a passenger), 5- Public bus, 6- Dial-A-Ride/Paratransit, 7- Rail-Runner, 8- Taxi/Limo, 9- School bus, 10- Motorcycle/Moped, 11- Private shuttle/bus, 12- Carpool/Vanpool, 13- does not travel to school, 97- Something else, -7=RF, -8=DK
school_mode_other	text	Other mode of transport to school
school_web	text	School online
school_type	smallint	School type
school_type_other	text	School type, other
education	smallint	Educational attainment: 1- Not a high school graduate, Grade 12 or less (this includes very young children), 2- High school graduate (high school diploma or GED), 3- Some college credit but no degree, 4- Associate or technical school degree, 5- Bachelors or undergraduate degree, 6- Graduate degree (includes professional degree like PHD, MD, DD, JD), 97- Some other degree
education_other	text	Education, other
transit_use	text	Use transit regularly during the week: 1- Nearly every day, 2- Once or twice a week, 3- Once or twice a month, 4- Less than once a month, 5- At least once a year, 6- Never, -7=RF, -8=DK, -9=Not ascertained
walk_trips_school	smallint	Walk to school in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
bike_trips_school	smallint	Bike to school in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
carpool_trips_school	smallint	Carpool to school in last week: 1- Zero times (never), 2- Once or twice, 3- Three or four times, 4- Five or more times, -7=RF, -8=DK
nogowhy	text	Reason for no trips: 1- Personally sick, 2- Vacation or personal day, 3- Caretaking sick (kids), 4- Caretaking sick (other), 5- Homebound elderly or disabled, 6- Worked at home for pay, 7- Not schedule to work, 8- Worked around home (not for pay), 9- Out of area, 10- No transportation available, 97- Other (specify), -7=RF, -8=DK
nogowhy_o	text	Reason for no trips, other

proxyperno	smallint	Person number reporting places
person_trips	smallint	Person trips
perfnlwgt0	double precision	Person weight range: 5-1795
geom*	geometry	Geometric point location where place= home

survey_households

The survey_households table includes data from the households that participated in the travel survey (a subset of the total households that participated in the study).

Name	Data Type	Comment
sampno	numeric	Unique household identifier
travel_date	date	Assigned travel day
dow	double precision	Travel day of week: 2- Monday, 3- Tuesday, 4- Wednesday, 5- Thursday, 6- Friday
home_county_id	character varying	County FIPS ID
home_size	integer	Household size
home_size_derived	integer	Household size derived
children_count	integer	Number of household children
worker_count	integer	Number of household workers
student_count	text	Number of household students
insured	integer	Household income: 1- Less than $10,000, 2- $10,000 to $14,999, 3- $15,000 to $24,999, 4- $25,000 to $34,999, 5- $35,000 to $49,999, 6- $50,000 to $74,999, 7- $75,000 to $99,999, 8- $100,000 to $149,999, 9- $150,000 to $199,999, 10- $200,000 or more, -7=RF, -8=DK
residence_type	integer	Residence type: 1- Single-family detached house, 2- Single-family attached house (duplex/townhouse/row house), 3- An apartment or condo, 4- Mobile home or trailer, 5- Boat/RV/Van, 6- Dorm Room/Fraternity/Sorority House, 97- Other, -7=RF, -8=DK
residence_type_other	text	Other type of dwelling (if residence type = other, specify)
own	integer	Own or rent? (1- Own without mortgage, 2- Own with mortgage, 3- Rent, 4- Occupied without payment of rent, 97- Some other arrangement, -7- RF, -8- DK, -9- Not ascertained)
own_other	text	Other, home ownership
vehicle_count	integer	of household vehicles- Reported
vehicle_count_derived	integer	of household vehicles- Actual
bike_count	integer	Number of household bicycles: RANGE: 0-15, 98=DK, 99=RF
license_count	integer	of household license holders
future	integer	Why vehicle not used?
disability	integer	Disability
disabled_who1	text	Who has disability?
disabled_who2	text	Who has disability?
disabled_who3	text	Who has disability?
dtype1	smallint	Type of disability: 1- visually impaired or blind, 2- Hearing impaired or deaf, 3- Cane or walker, 4- Wheelchair non-transferable, 5- Wheelchair transferable, 6- Mentally or emotionally disabled, 97- Something else

dtype2	smallint	Type of disability: 1- Visually impaired or blind, 2- Hearing impaired or deaf, 3- Cane or walker, 4- Wheelchair non-transferable, 5- Wheelchair transferable, 6- Mentally or emotionally disabled, 97- Something else
dtype3	smallint	Type of disability: 1- Visually impaired or blind, 2- Hearing impaired or deaf, 3- Cane or walker, 4- Wheelchair non-transferable, 5- Wheelchair transferable, 6- Mentally or emotionally disabled, 97- Something else
dtype4	smallint	Type of disability: 1- Visually impaired or blind, 2- Hearing impaired or deaf, 3- Cane or walker, 4- Wheelchair non-transferable, 5- Wheelchair transferable, 6- Mentally or emotionally disabled, 97- Something else
gps_sample	integer	GPS household flag: 0- Non-GPS household, 1- GPS household, 2- Ineligible due to age, 3- Refused GPS, 4- Travel date too far
dtype_o	text	Other, disability type
lifecycle	integer	Household life cycle: 1- One adult, no children, 2- 2+ adults (no children), 3- One adult (youngest child: 0-5), 4- 2+ adults (youngest child: 0-5), 5- One adult (youngest child: 6-15), 6- 2+ adults (youngest child: 6-15), 7- One adult (youngest child: 16-21), 8- 2+ adults (youngest child: 16-21), 9- One adult, retired (no children), 10- 2+ adults, retired (no children)
recruite	integer	Recruit mode: 0- Not worked, 1- CATI, 2- Web
retrieval	integer	Retrieval mode: 0- Not worked, 1- CATI, 2- Web, 3- Mail back
trip_count	text	Total of household trips
hhrkwt0	double precision	Household weight range: 8-999
geom*	geometry	Point geometry taken from locations table classified as home

survey_location

The survey_location table contains the locations visited during the sample period.

Name	**Data Type**	**Comment**
sampno	numeric	Unique household identifier
perno	smallint	Person identifier
locno	integer	Location identifier
loctype	smallint	Location type: 1- Home, 2- Work, 3- School, 4- Second work, 5- Transit stop, 6- Volunteer, 7- Other
locname*	text	Location name
address_street*	text	Address
city	text	City name
state	text	State name
zip	text	Zip code
longitude*	double precision	X coordinate
latitude*	double precision	Y coordinate
ctyfips	text	County FIPS ID
taz*	text	Traffic analysis zone
geom*	geometry	Geometric point data representing location

Wearable Tables

w_sortedtrips

The w_sortedtrips table contains an integrated record of all trips, both diary-reported and GPS-captured, by persons or vehicles for all complete households. This table contains only persons or vehicles whose diary data were able to be matched to GPS data or whose diary data confirmed no travel on the travel day.

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
trip	text	Diary trip- in the case of vehicle trips aggregated from personal diaries (RANGE: 1 to N, -999 = placeholder for GPS trips before the first diary trip, 999 = placeholder for GPS trips after the last diary trip, decimal numbers (X.5) - GPS-only tours
startplace*	text	Name of starting place (null if a GPS-only tour)
endplace*	text	Name of ending place (null if a GPS-only tour)
startgpsplaceid	integer	GPS place ID of the starting place (can be joined with sampno and perno to placeGPSTMs gpsplaceid for details on the starting place (Note: there may be duplicates but they will be identical on GPS fields))
endgpsplaceid	smallint	GPS place ID of the ending place (can be joined with sampno and perno to placeGPSTMs gpsplaceid for details on the starting place (note: there may be duplicates but they will be identical on GPS fields))
newgpslist	text	New GPS places found within diary trip that are not accounted for in the diary (comma-separated list of places) (null if no new GPS places between startplace and endplace; Special cases: when trip = -999, the list includes startgpsplaceid because the first GPS place was not accounted for in the diary, when trip= 999, the list includes endgpsplaceid because the last GPS Place was not accounted for in the diary)

w_gpstrips

The w_gpstrips table contains trip-level information for each valid GPS trip detected in the GPS point data collected by the sampled households during the assigned travel day.

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
gpstripid	smallint	Trip number within file
gpstravdayid	integer	Travel day within travel period (n= 1 to 3)
gpstravdaytripid	smallint	Trip number within travel day (restarts at 1 each day)
start_time	timestamp without time zone	Local date and time of trip start
end_time	timestamp without time zone	Local date and time of trip end
duration_min	double precision	Duration of trip (in minutes)

distance_miles	double precision	Distance covered during trip (in miles)
avg_speed_mph	double precision	Average speed (mph)
max_speed_mph	double precision	Max speed (mph)
travel_mode	smallint	Inputted travel mode (if single mode or stage, then mode code, if multiple, then longest distance travel mode)
nbstages	smallint	Count of unique trip stages (each stage is a change in travel mode)
travmodelist	text	Comma delimited sequence of travel modes
numuniqmodes	smallint	Count of unique travel modes
uniqmodelist	text	Comma delimited list of unique modes ordered numerically
origin_lon*	double precision	Longitude (dd WGS84) of trip origin
origin_lat*	double precision	Latitude (dd WGS84) of trip origin
destination_lon*	double precision	Longitude (dd WGS84) of trip destination
destination_lat*	double precision	Latitude (dd WGS84) of trip destination
distfromlastdest	double precision	Distance between previous trip destination and current trip origin (in meters)
gaptime	double precision	Time between previous trip/stage destination and current trip/stage origin (in minutes)
tripareatype	smallint	Area defined by CA state boundary: 1- Internal origin, internal destination, 2- Internal origin, external destination, 3- External origin, internal destination, 4- External origin, external destination
workrelated	smallint	1- Trip suspected to be work-related, 0- Otherwise
no_transport	smallint	1- trip suspected to be a non-transportation trip, 0- Otherwise
onsite	smallint	1- Trip appears to be within boundaries of a single location, 0- Otherwise
looptrip	smallint	1- Trip starts and ends at same location, 0- Otherwise
origin_loc_type	text	Home, work, school, other (based on proximity to geocoded home, work, or school location)
destination_loc_type	text	Home, work, school, other (based on proximity to geocoded home, work, or school location)
geom*	geometry	A line representation created by NREL to represent the path of travel for the trip. Points are grouped using the start and end GPS timestamps, and ordered to create a line (WGS84, 4326).

w_person

The w_person table provides trip summary data for the persons outfitted with GPS (a subset of the total persons in the study).

Name	**Data Type**	**Comment**
sampno	numeric	Household identifier
perno	smallint	Person identifier
diarytripsday1	smallint	Number of all diary trips reported on day 1
gpstripsday1	smallint	Number of GPS trips collected on day 1 of deployment period
gpstripsday2	smallint	Number of GPS trips collected on day 2 of deployment period
gpstripsday3	smallint	Number of GPS trips collected on day 3 of deployment period
totalgpstrips	smallint	Number of GPS trips collected during 7 day deployment period

geom*	geometry	Geometric Linestring

w_points

The w_points table contains all valid GPS points (associated with GPS trips) collected by the sampled wearable households during the assigned travel day. All higher-level tables (households, persons, trips, etc.) are derived from point tables. For public download, the w_points data is segregated by person and available in the sorted_by_person.zip file. Thus, the w_points table is not available in the full_survey.zip download. This decision was made to better organize the data and manage file sizes.

Name	Data Type	Comment
sampno	numeric	Unique household identifier
perno	smallint	Person identifier
gpstripid	integer	Trip identifier
gpstravdayid	smallint	Travel day within deployment period (n=1 to 3).
localid	integer	Point identifier
time_local	timestamp without time zone	Local timestamp
longitude*	double precision	The longitude recorded by the GPS device
latitude*	double precision	The latitude recorded by the GPS device
gpsspeed	double precision	GPS speed (in MPH)
geom*	geometry	GPS point data

w_gpstripstages

The w_gpstripstages table contains one record for each trip stage identified within a wearable GPS trip, where a stage is defined as travel made by a given travel mode.

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
gpstripid	smallint	Trip number from file
gpstravdayid	smallint	Travel day within travel period (n= 1 to 3)
gpstravdaytripid	smallint	Trip number within travel day (restarts at 1 each day)
stage_id	integer	Stage number within trip
start_time	timestamp without time zone	Local timestamp of trip start
end_time	timestamp without time zone	Local timestamp of trip end
duration_min	double precision	Duration of trip stage (in minutes)
distance_miles	double precision	Distance covered during trip stage (in miles)
avgspeed	double precision	Average speed during trip stage (MPH)
avg_gpsspeed	double precision	Average speed at all points within trip (MPH)
maxspeed	double precision	Max speed during trip stage (MPH)
travel_mode	integer	Imputed travel mode (mode codes are identical to NuStats CATI modes)

origin_lon*	double precision	Longitude (dd WGS84) of trip stage origin
origin_lat*	double precision	Latitude (dd WGS84) of trip stage origin
destination_lon*	double precision	Longitude (dd WGS84) Of trip stage destination
destination_lat*	double precision	Latitude (dd WGS84) of trip stage destination
distfromlastdest	text	Distance between previous trip destination and current trip origin (in feet). null if distance ¿ 500 meters
gaptime	text	Time between previous trip/stage destination and current trip/stage origin (in minutes)
geom*	geometry	Geometric Linestring

w_place

The w_place table contains all diary-reported trips by persons or vehicles for all households. This table contains only persons whose diary data was able to be matched to GPS data or whose diary data confirmed no travel on the travel day.

Name	**Data Type**	**Comment**
sampno	numeric	Household identifier
perno	smallint	Person identifier
gpsplaceid	integer	Place number (from GPS)
plano	smallint	Place number (from Diary)
arr_match_type	smallint	Match type of incoming trips destination: 1- Matched by time/distance, 2- Matched by an analyst, 3- Single link in chain, 4- Multiple links in chain, 5- All links in a round trip, 6- Before all GPS trips, 7- Between GPS trips, 8- after all GPS trips, 9- No diary is available for the travel day (since GPS is collected for a longer period than the diary, The last diary place will often have this as a dep_match_type)
dep_match_type	smallint	Match type of incoming trips origin: 1- Matched by time/distance, 2- Matched by an analyst, 3- Single link in chain, 4- Multiple links in chain, 5- All links in a round trip, 6- Before all GPS trips, 7- Between GPS trips, 8- after all GPS trips, 9- No diary is available for the travel day (since GPS is collected for a longer period than the diary, The last diary place will often have this as a arr_match_type)
name*	text	Name of place
address*	text	Address of place
city	text	City of place
lon*	double precision	Longitude of place
lat*	double precision	Latitude of place
arr_gpslon*	double precision	Longitude of last GPS point before arrival
arr_gpslat*	double precision	Latitude of last GPS point before arrival
dep_gpslon*	double precision	Longitude of first GPS point after departure
dep_gpslat*	double precision	Latitude of first GPS point after departure
distance	double precision	Distance between GPS trip end and diary trip end (in feet)
arr_time	timestamp without time zone	Date-time of arrival according to diary
dep_time	timestamp without time zone	Date-time of departure according to diary
arr_gpstime	timestamp without time zone	Date-time of arrival according to GPS
dep_gpstime	timestamp without time zone	Date-time of departure according to GPS

diaryloctype	text	Home, work, school, other (diary)
gpsloctype	text	Home, work, school, other (GPS)
geom*	geometry	Point representation of the place generated from the places lat/lon coordinate value in the table (WGS 4326). Origin/Destination or arrival/departure points are available but are not represented as geometries in this table

w_households

The w_households table includes data from the households that participated in the wearable GPS portion of the study (a subset of the total households that participated in the study).

Name	Data Type	Comment
sampno	numeric	Household identifier
persons_count	integer	Household size (RANGE: 1-15, 98- DK, 99- RF)
persons_count_gps	integer	Number of persons deployed with GPS devices
travel_day1	text	Assigned travel date for diary completion
gps_trips_td	integer	Number of GPS wearable trips on assigned travel date
gps_trips_23	integer	Number of GPS wearable trips on days 2 and 3
diary_trips_td	integer	Total of all diary trips on assigned travel date (null if diarycomplete = 0)
gps_complete	integer	GPS data exists for all instrumented persons (or for at least 2 persons in ¿= 3 person household) or CATI confirms no travel on assigned travel date (0- false, 1- true)
diary_complete	integer	Diary data was retrieved for this household (0- False, 1- True)
gps_diary_complete	integer	Both GPS and diary are complete (0- False, 1- True)
geom*	geometry	Point grabbed from place table where place name = home

w_missedtrips

The w_missedtrips table contains a comparison of diary-reported trips and GPS-captured trips by persons. This table contains only persons whose diary data were able to be matched to GPS data or whose diary data confirmed no travel on the travel day.

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
gpsdiarycomplete	smallint	Both GPS and travel log (diary) are complete
nbgpstripsdiaryday	smallint	Number of trips captured by gps on the travel day
nbdiaryreportedtrips	smallint	Number of trips reported by log for this person on the travel day
rawmatchdifference	integer	The difference between nbgpstripsdiaryday and nbdiaryreportedtrips
nbmissinggpstrips	smallint	Number of trips reported by diary, not in GPS data
nbmissingdiarytrips	smallint	Number of trips captured by GPS, not in diary data

Sorted by Person Tables

gps_households

The w_households table includes data from the households that participated in the wearable GPS portion of the study (a subset of the total households that participated in the study).

Name	Data Type	Comment
sampno	numeric	Household identifier
persons_count	integer	Household size (RANGE: 1-15, 98- DK, 99- RF)
persons_count_gps	integer	Number of persons deployed with GPS devices
travel_day1	text	Assigned travel date for diary completion
gps_trips_td	integer	Number of GPS wearable trips on assigned travel date
gps_trips_23	integer	Number of GPS wearable trips on days 2 and 3
diary_trips_td	integer	Total of all diary trips on assigned travel date (null if diarycomplete = 0)
gps_complete	integer	GPS data exists for all instrumented persons (or for at least 2 persons in ¿= 3 person household) or CATI confirms no travel on assigned travel date (0- false, 1- true)
diary_complete	integer	Diary data was retrieved for this household (0- False, 1- True)
gps_diary_complete	integer	Both GPS and diary are complete (0- False, 1- True)

person

The w_person table provides trip summary data for the persons outfitted with GPS (a subset of the total persons in the study).

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
diarytripsday1	smallint	Number of all diary trips reported on day 1
gpstripsday1	smallint	Number of GPS trips collected on day 1 of deployment period
gpstripsday2	smallint	Number of GPS trips collected on day 2 of deployment period
gpstripsday3	smallint	Number of GPS trips collected on day 3 of deployment period
totalgpstrips	smallint	Number of GPS trips collected during 7 day deployment period

gps_points

The w_points table contains all valid GPS points (associated with GPS trips) collected by the sampled wearable households during the assigned travel day. All higher-level tables (households, persons, trips, etc.) are derived from point tables. For public download, the w_points data is segregated by person and available in the sorted_by_person.zip file. Thus, the w_points table is not available in the full_survey.zip download. This decision was made to better organize the data and manage file sizes.

Name	Data Type	Comment
sampno	numeric	Unique household identifier
perno	smallint	Person identifier
gpstripid	integer	Trip identifier
gpstravdayid	smallint	Travel day within deployment period (n=1 to 3).
localid	integer	Point identifier
time_local	timestamp without time zone	Local timestamp
gpsspeed	double precision	GPS speed (in MPH)

gps_trips

The w_gpstrips table contains trip-level information for each valid GPS trip detected in the GPS point data collected by the sampled households during the assigned travel day.

Name	Data Type	Comment
sampno	numeric	Household identifier
perno	smallint	Person identifier
gpstripid	smallint	Trip number within file
gpstravdayid	integer	Travel day within travel period (n= 1 to 3)
gpstravdaytripid	smallint	Trip number within travel day (restarts at 1 each day)
start_time	timestamp without time zone	Local date and time of trip start
end_time	timestamp without time zone	Local date and time of trip end
duration_min	double precision	Duration of trip (in minutes)
distance_miles	double precision	Distance covered during trip (in miles)
avg_speed_mph	double precision	Average speed (mph)
max_speed_mph	double precision	Max speed (mph)
travel_mode	smallint	Inputted travel mode (if single mode or stage, then mode code, if multiple, then longest distance travel mode)
nbstages	smallint	Count of unique trip stages (each stage is a change in travel mode)
travmodelist	text	Comma delimited sequence of travel modes
numuniqmodes	smallint	Count of unique travel modes
uniqmodelist	text	Comma delimited list of unique modes ordered numerically
distfromlastdest	double precision	Distance between previous trip destination and current trip origin (in meters)
gaptime	double precision	Time between previous trip/stage destination and current trip/stage origin (in minutes)
tripareatype	smallint	Area defined by CA state boundary: 1- Internal origin, internal destination, 2- Internal origin, external destination, 3- External origin, internal destination, 4- External origin, external destination
workrelated	smallint	1- Trip suspected to be work-related, 0- Otherwise
no_transport	smallint	1- trip suspected to be a non-transportation trip, 0- Otherwise
onsite	smallint	1- Trip appears to be within boundaries of a single location, 0- Otherwise
looptrip	smallint	1- Trip starts and ends at same location, 0- Otherwise

origin_loc_type	text	Home, work, school, other (based on proximity to geocoded home, work, or school location)
destination_loc_type	text	Home, work, school, other (based on proximity to geocoded home, work, or school location)

* Indicates that the column has been redacted from cleansed data sets available at www.nrel.gov/tsdc. It has been determined that the column contains sensitive data that must be viewed within the TSDC's secure portal environment.

Note: When necessary, a series of lookup tables was provided in the database to identify the meanings of certain integer-represented responses to survey questions.

How to Cite the TSDC:

If you use TSDC data in a publication, please send a notification to **tsdc@nrel.gov** and include a citation that is consistent with the following format in your publication:

"Transportation Secure Data Center" (2016). National Renewable Energy Laboratory. |*Date TSDC data was accessed*|. www.nrel.gov/tsdc.