

Data Set Description and Dictionary

Bicycle Performance Data

Schema: bicycle

November 21, 2013



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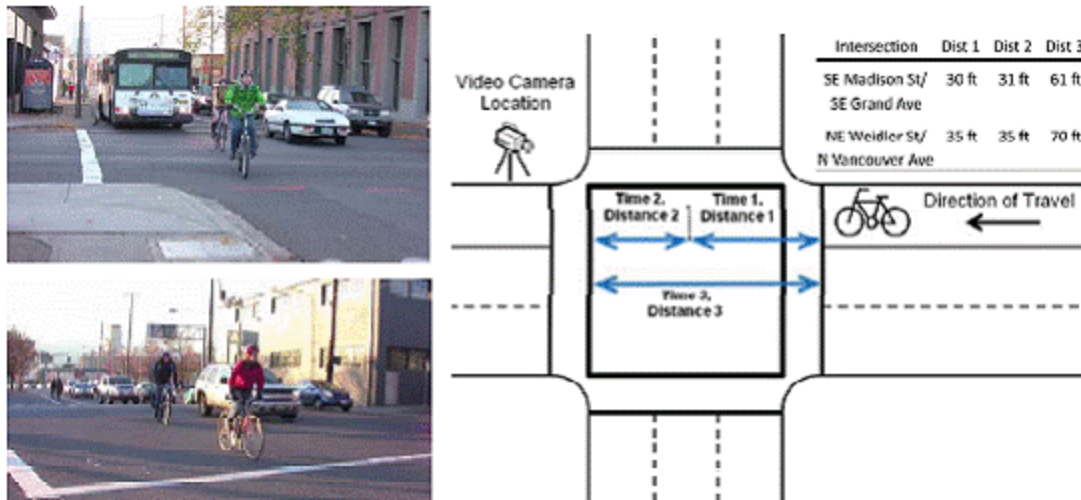
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1 Data Description

The schema bicycle contains two tables – *performance* (422 rows) and *location*(2 rows). The table performance contains data were extracted from video data collected at 2 intersections in Portland, OR by Dr. Figliozzi and his students. The table *location* defines the location of the data collection efforts:

- Madison/NE Grand (Flat Grade) Winter Collection Date and Time: 12/4/08, 7:30-10:30 AM; Summer Collection Dates and Time: 7/3/08-7/17/08, 7:30-9:30 AM
- Vancouver/Wiedler (Grade) Winter Collection Date and Time: 12/5/08, 3:00-6:30 PM and Summer Collection Dates and Time: 7/3/08-7/21/08, 3:00-7:00 PM

The following figure describes the data collection set up and the elements recorded in the *performance* table.



A couple notes about the data:

- 1) The rider numbers are not continuous; there are gaps in the numbering within the data that were used for analysis. This is because each rider was numbered in the field. Upon review of the data in video, some riders were excluded from analysis for various reasons (for example, if they stopped in the crosswalk instead of at the first crosswalk line). In order to be able to track a rider from analysis to our field notes, we did not change the numbering of the cyclist. This is why you may notice some rider numbers missing.
- 2) For the summer analysis, we did not gather the data from the video on baggage, bicycle type, or pedal type.
- 3) For the summer analysis, we attempted to also collect crossing time data from riders further back in the queue (the second or fifth rider back), when they were present. This is why the rider numbers in the summer are labeled with an "A"--to correspond to the 1st rider. In the data I have linked to above, the 2nd and 5th rider's crossing times are NOT included (these rider numbers would be followed by "B" or "E").

1.1 Performance

Table 1 Data Dictionary for Performance Table

name	Data type	Comment
location_id	integer	data collection location, see table bicycle.location
grade	integer	0 = no grade (flat); 1 = grade
season	integer	0 = Winter; 1 = Summer
rider	character varying	unique ID for rider observed
time1	double precision	time at point 1, seconds
time2	double precision	time at point 2, seconds
time3	double precision	time at point 3, seconds
speed1	double precision	miles per hour
speed2	double precision	miles per hour
avgspeed	double precision	miles per hour
age	integer	0 = Old; 1 = Young
sex	integer	0 = Male; 1 = Female
baggage	character varying	BP = Backpack, BB = Bike Bag
biketype	character varying	M = Mountain bicycle, H = Hybrid bicycle, R = Road bicycle, 999 could not be determined due to low visibility
pedtype	character varying	F = flat pedals, TC = toe clips/straps, CL = clipless/clip-in pedals, 999 could not be determined due to low visibility

1.2 Location

Location: Madison/NE Grand (Flat Grade)
Data Collector: Nikki Wheeler
Winter Collection Date and Time: 12/4/08, 7:30-10:30 AM
Summer Collection Dates and Time: 7/3/08-7/17/08, 7:30-9:30 AM
Intersection Distance: 61' from first Xwalk line to other side of the intersection (marked by 2nd orange line) 61 feet from first Xwalk line to end of intersection (marked by 2nd orange line) 31 feet from first Xwalk to roughly mid intersection (orange line)
Location: Vancouver/Wiedler (Grade)
Data Collector: Nikki Wheeler
Winter Collection Date and Time: 12/5/08, 3:00-6:30 PM

Summer Collection Dates and Time: 7/3/08-7/21/08, 3:00-7:00 PM
Intersection Distance: 70' from first Xwalk line to other side of intersection (marked by 2nd orange line)
70 feet from first Xwalk line to end of intersection (marked by 2nd orange line)
35 feet from first Xwalk to roughly mid intersection (orange line)

Table 2 Data Dictionary for Location Table

Name	Data type	Comment
location_id	integer	data collection location, see table bicycle.location
interesection	character varying	location of data collection
datacollector	character varying	collected by
pt1	integer	distance (feet) from first Xwalk line to other side of the intersection (marked by 2nd orange line)
pt2	integer	distance (feet) from first Xwalk line to end of intersection (marked by 2nd orange line)
pt3	integer	distance (feet) from first Xwalk to roughly mid intersection (orange line)
winter	character varying	dates and times of data collection
summer	character varying	dates and times of data collection