

Land Use: 853

Convenience Market with Gasoline Pumps

Description

The convenience markets surveyed sell gasoline, convenience foods, newspapers, magazines and often beer and wine. This land use includes convenience markets with gasoline pumps where the primary business is the selling of convenience items, not the fueling of motor vehicles. Convenience market—open 24 hours (Land Use 851), convenience market—open 15–16 hours (Land Use 852), gasoline/service station (Land Use 944), gasoline/service station with convenience market (Land Use 945) and gasoline/service station with convenience market and car wash (Land Use 946) are related uses.

Additional Data

The independent variable vehicle fueling position is defined as the maximum number of vehicles that can be fueled simultaneously.

The weekday peak hours of the generator typically coincided with the peak hours of the adjacent street traffic.

The sites were surveyed from the 1980s to the 1990s throughout the United States.

Source Numbers

237, 245, 274, 276, 278, 300, 340, 350, 351, 352, 359, 366

Convenience Market with Gasoline Pumps (853)

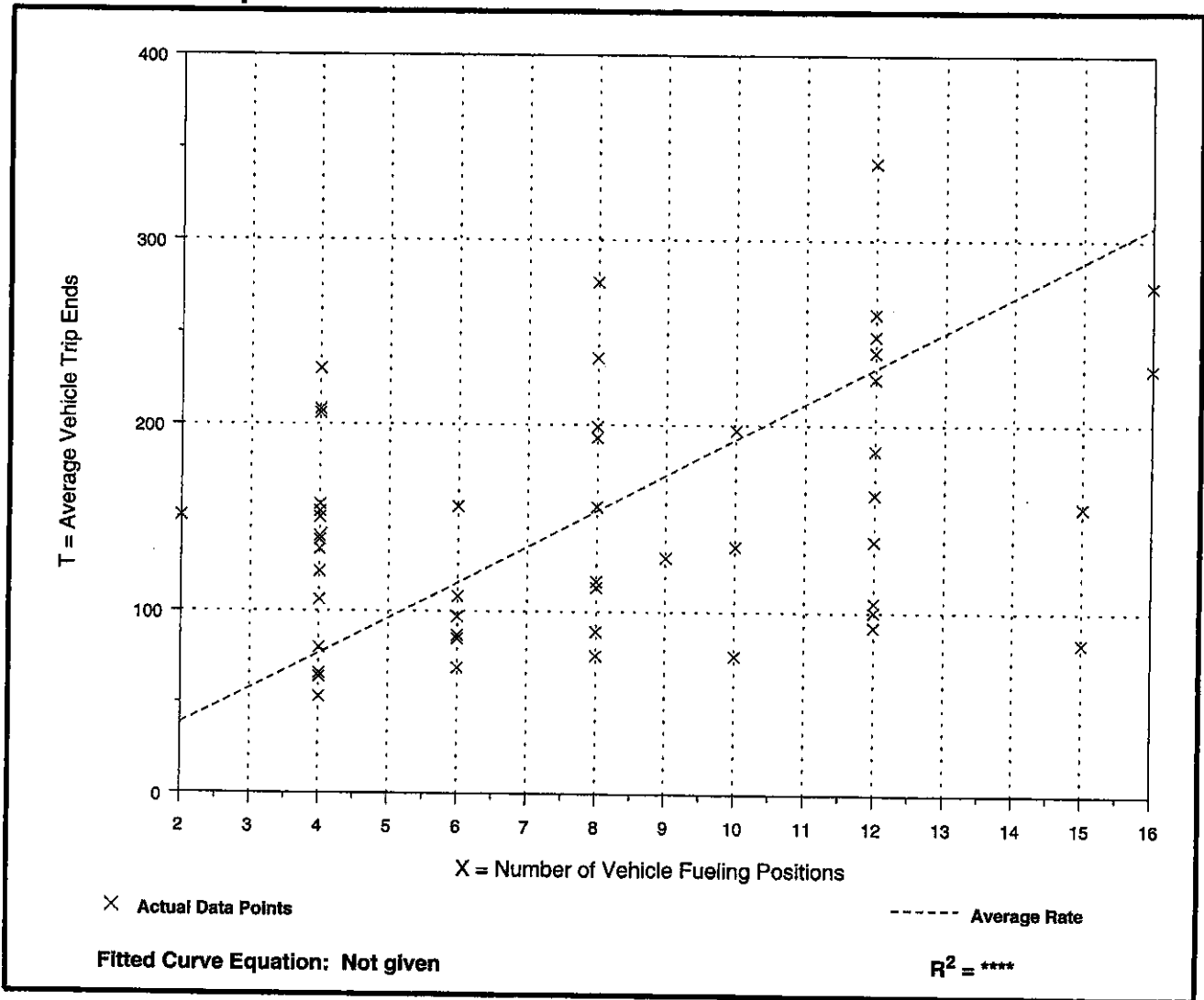
Average Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 53
 Average Vehicle Fueling Positions: 8
 Directional Distribution: 50% entering, 50% exiting

Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
19.22	5.53 - 75.50	12.02

Data Plot and Equation



Convenience Market with Gasoline Pumps (853)

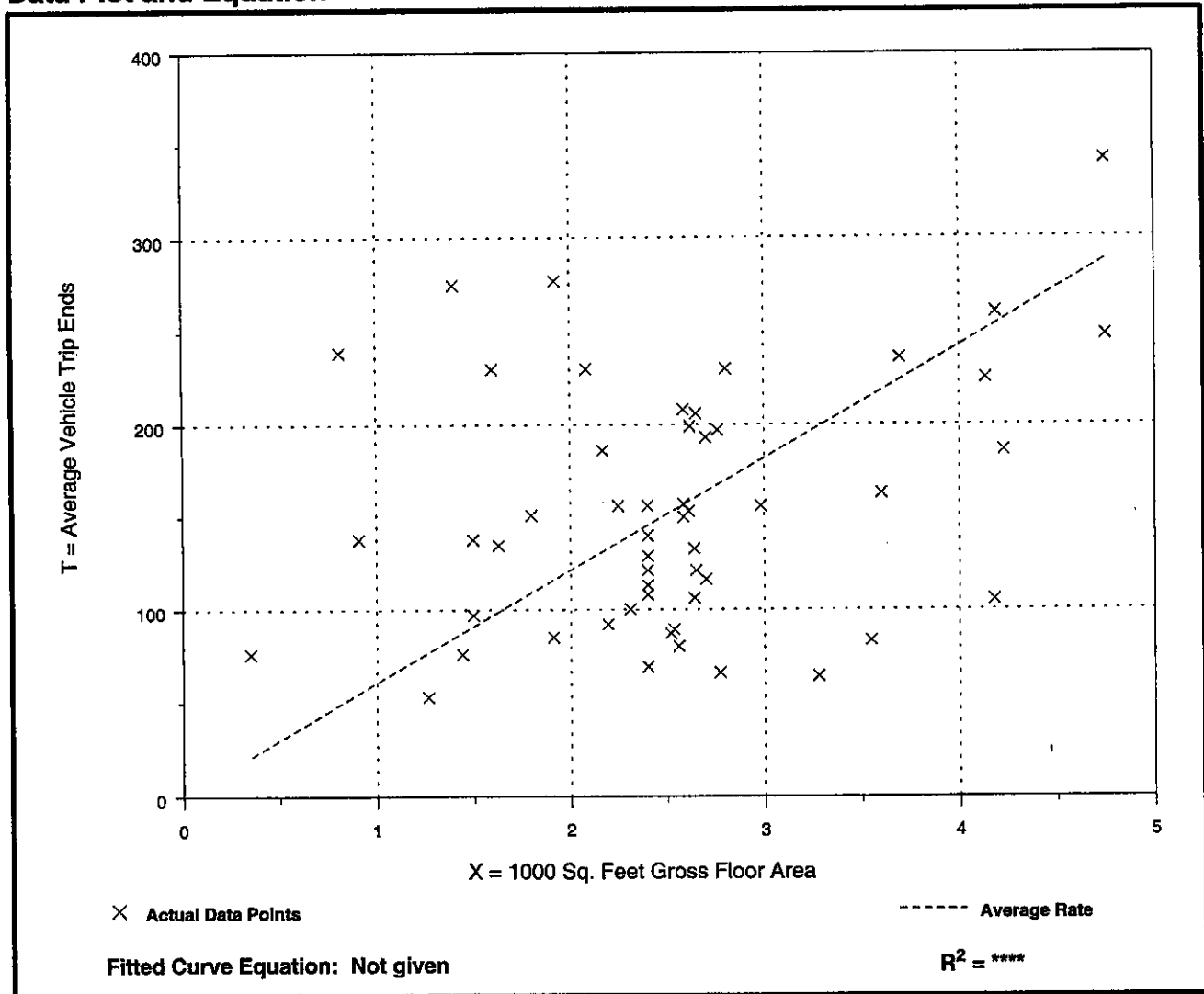
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 53
 Average 1000 Sq. Feet GFA: 3
 Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
60.61	19.54 - 292.89	35.37

Data Plot and Equation



Land Use: 945

Gasoline/Service Station with Convenience Market

Description

This land use includes gasoline/service stations with convenience markets where the primary business is the fueling of motor vehicles. These service stations may also have ancillary facilities for servicing and repairing motor vehicles. Some commonly sold convenience items are newspapers, coffee or other beverages and snack items that are usually consumed in the car. These service stations are generally located at intersections or interchanges. This land use does not include stations with car washes. Convenience market—open 24 hours (Land Use 851), convenience market—open 15–16 hours (Land Use 852), convenience market with gasoline pumps (Land Use 853), gasoline/service station (Land Use 944) and gasoline/service station with convenience market and car wash (Land Use 946) are related uses.

Additional Data

The independent variable vehicle fueling position is defined as the maximum number of vehicles that can be fueled simultaneously.

Gasoline/service stations in this land use include “pay-at-the-pump” and traditional fueling stations.

The weekday peak hours of the generator typically coincided with the peak hours of the adjacent street traffic.

The sites were surveyed from the late 1980s to the 1990s throughout the United States, with many conducted in New England.

Source Numbers

221, 255, 288, 347, 350, 351, 355, 440

Gasoline/Service Station with Convenience Market (945)

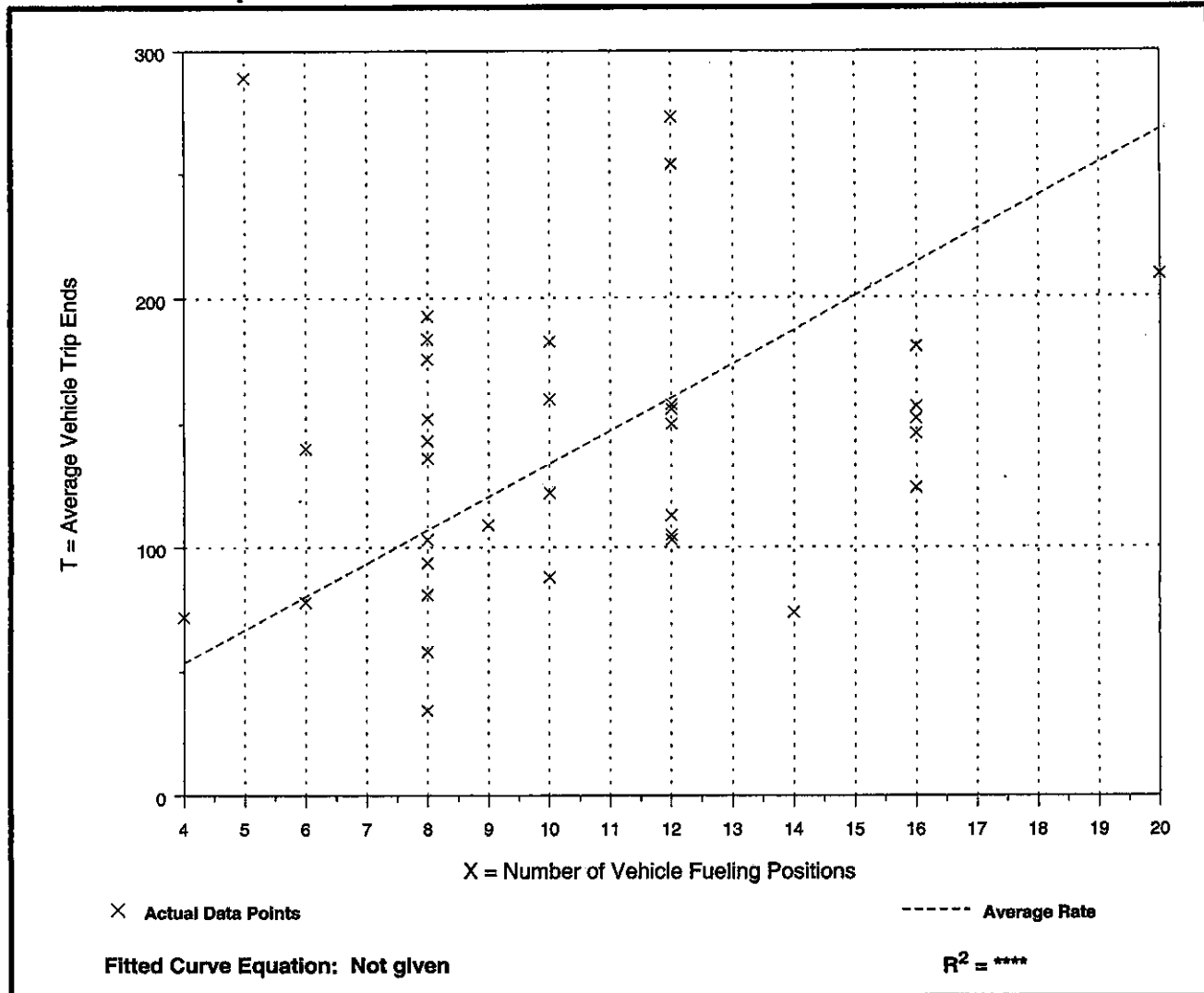
Average Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 37
 Average Vehicle Fueling Positions: 10
 Directional Distribution: 50% entering, 50% exiting

Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
13.38	4.25 - 57.80	7.98

Data Plot and Equation



Gasoline/Service Station with Convenience Market (945)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 31
 Average 1000 Sq. Feet GFA: 1
 Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
96.37	27.86 - 451.28	65.76

Data Plot and Equation

