

# Land Use: 720

## Medical-Dental Office Building

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### Description

A medical-dental office building is a facility or clinic with one or more tenants that provides diagnoses and outpatient care on a routine basis. Tenants range from individual private physicians and dentists to large medical practices. Patient visits are by appointment only. Walk-in clinic (Land Use 630) is a related use.

### Land Use Subcategory

Analysis of medical-dental office building data found that trip generation rates differ measurably between sites located within or adjacent to a hospital campus and sites that are stand-alone. Data plots are presented for these two land use subcategories.

### Additional Data

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in California, Connecticut, Hawaii, Minnesota, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Washington, and Wisconsin.

### Source Numbers

357, 384, 444, 509, 601, 867, 879, 901, 902, 908, 959, 1208, 1219, 1241

# Medical-Dental Office Building - Stand-Alone (720)

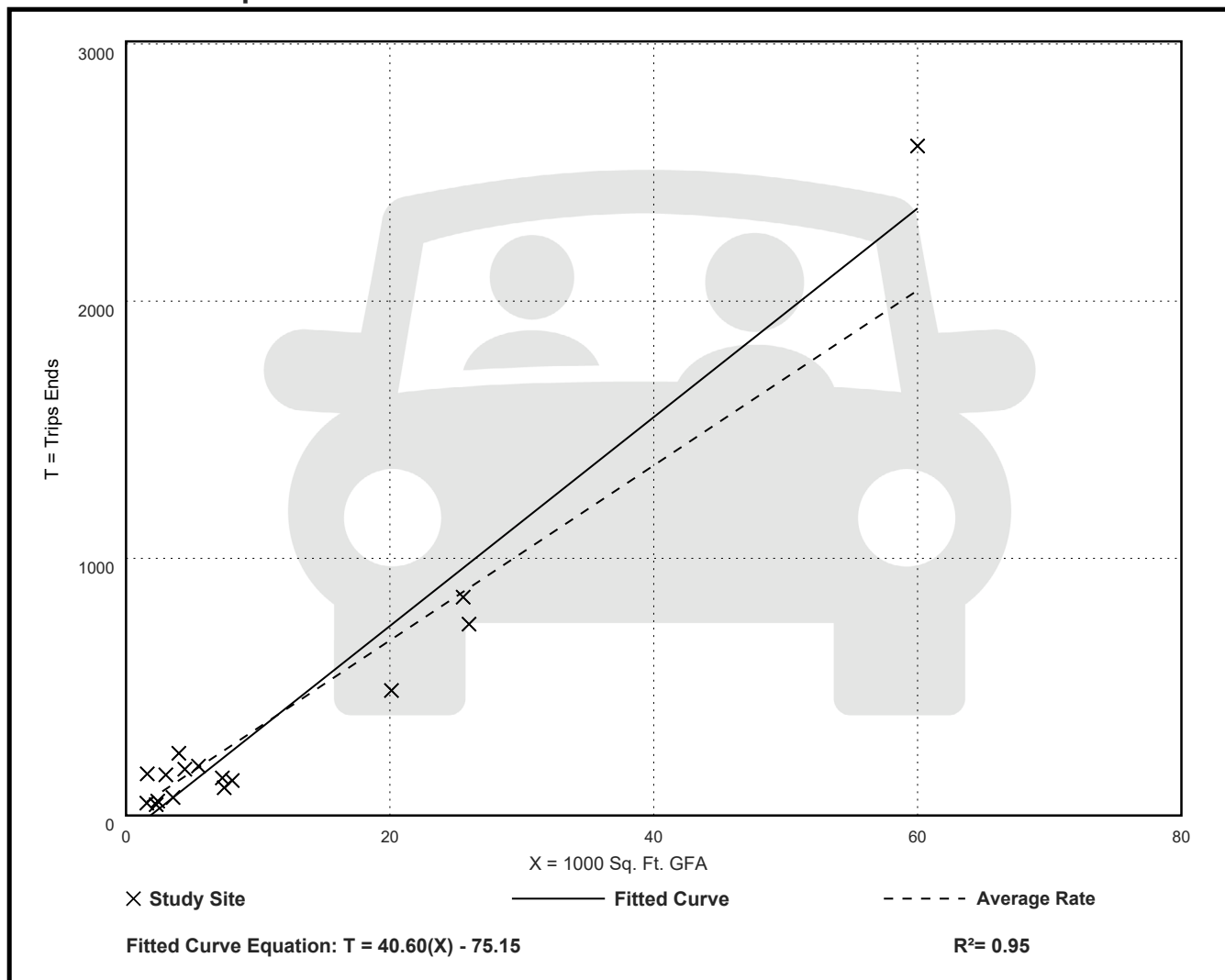
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 16  
Avg. 1000 Sq. Ft. GFA: 11  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
34.03	14.52 - 100.75	12.64

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 20

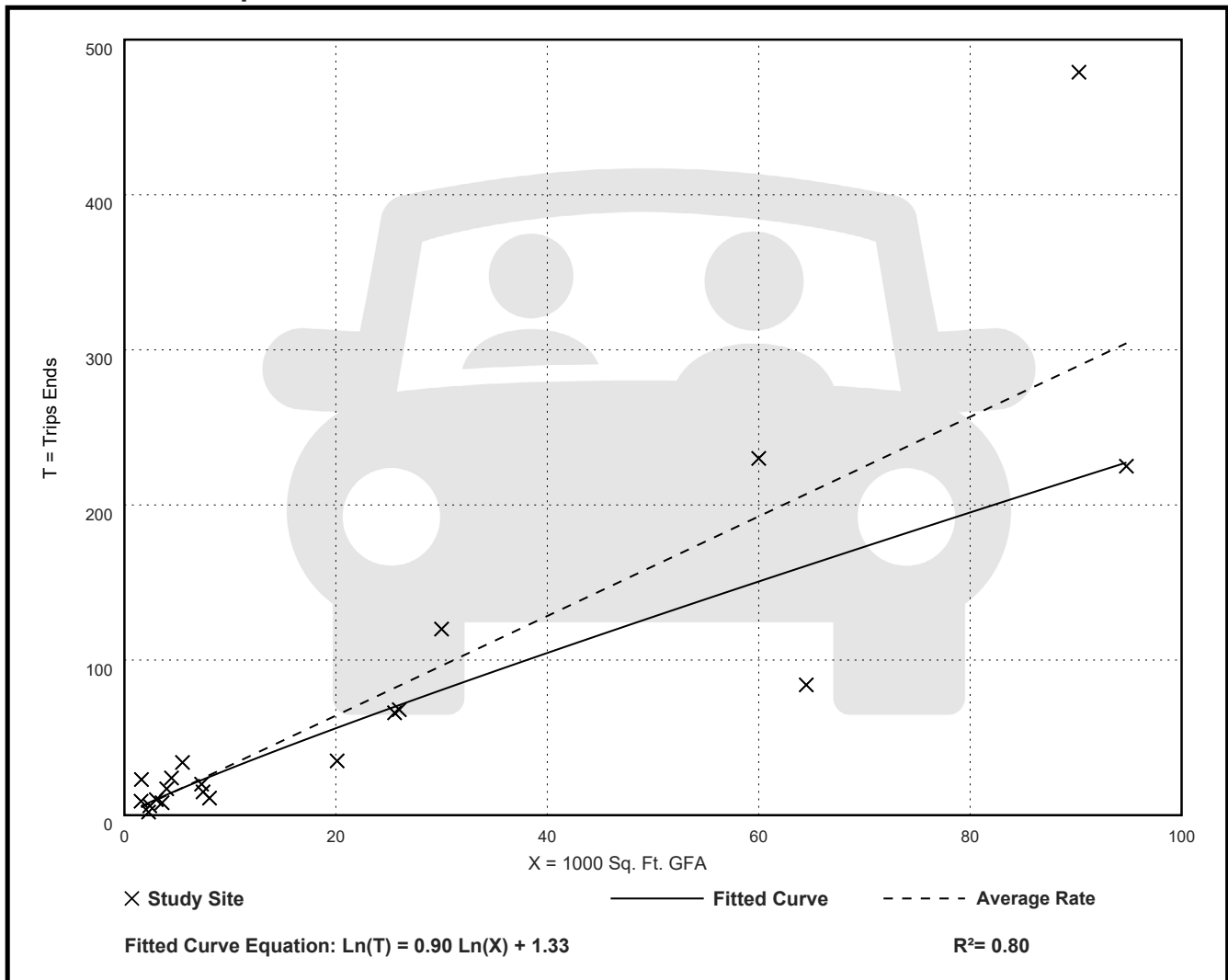
Avg. 1000 Sq. Ft. GFA: 23

Directional Distribution: 78% entering, 22% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.21	0.87 - 14.30	1.61

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 26

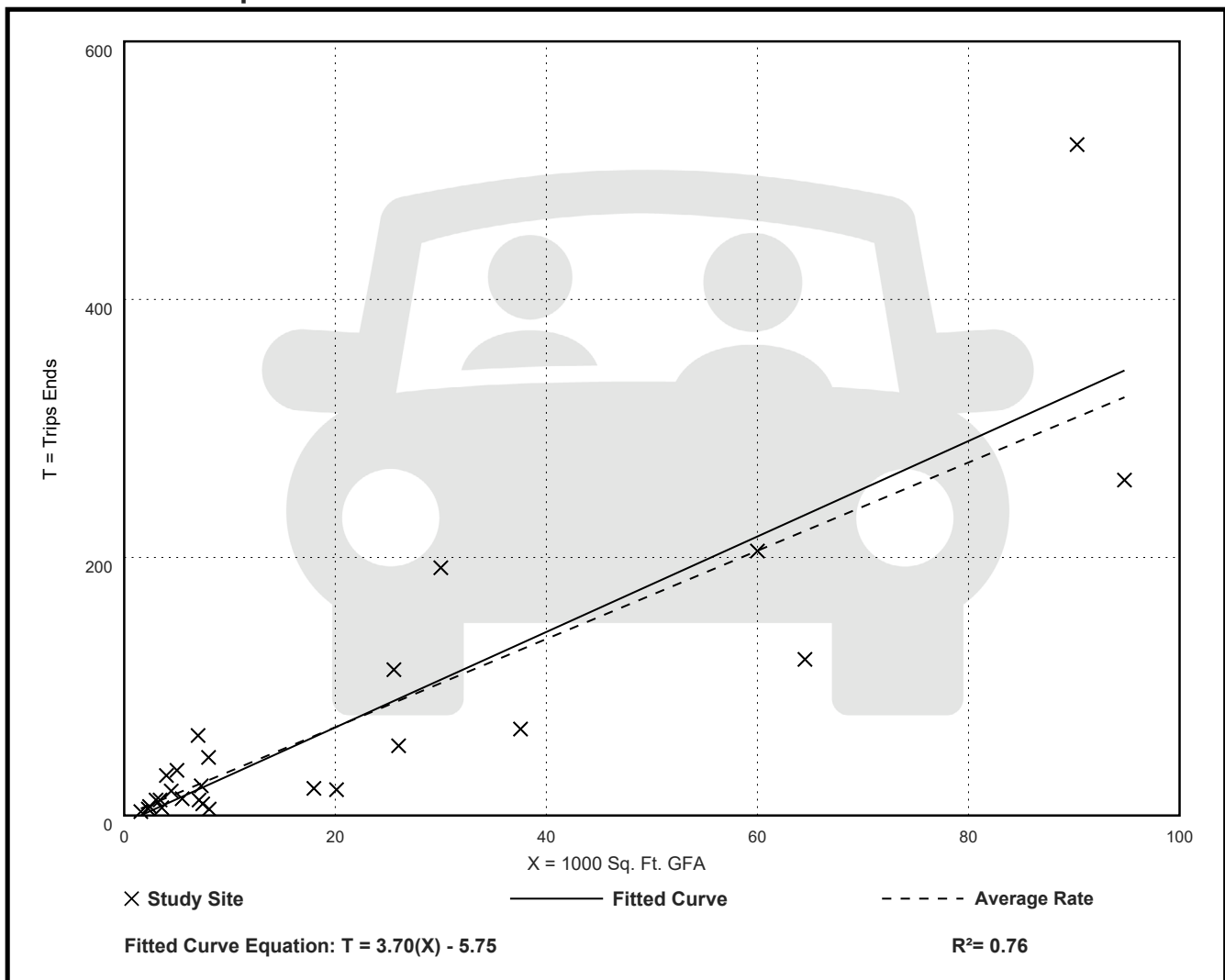
Avg. 1000 Sq. Ft. GFA: 21

Directional Distribution: 30% entering, 70% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.42	0.62 - 8.86	1.89

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,  
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 16

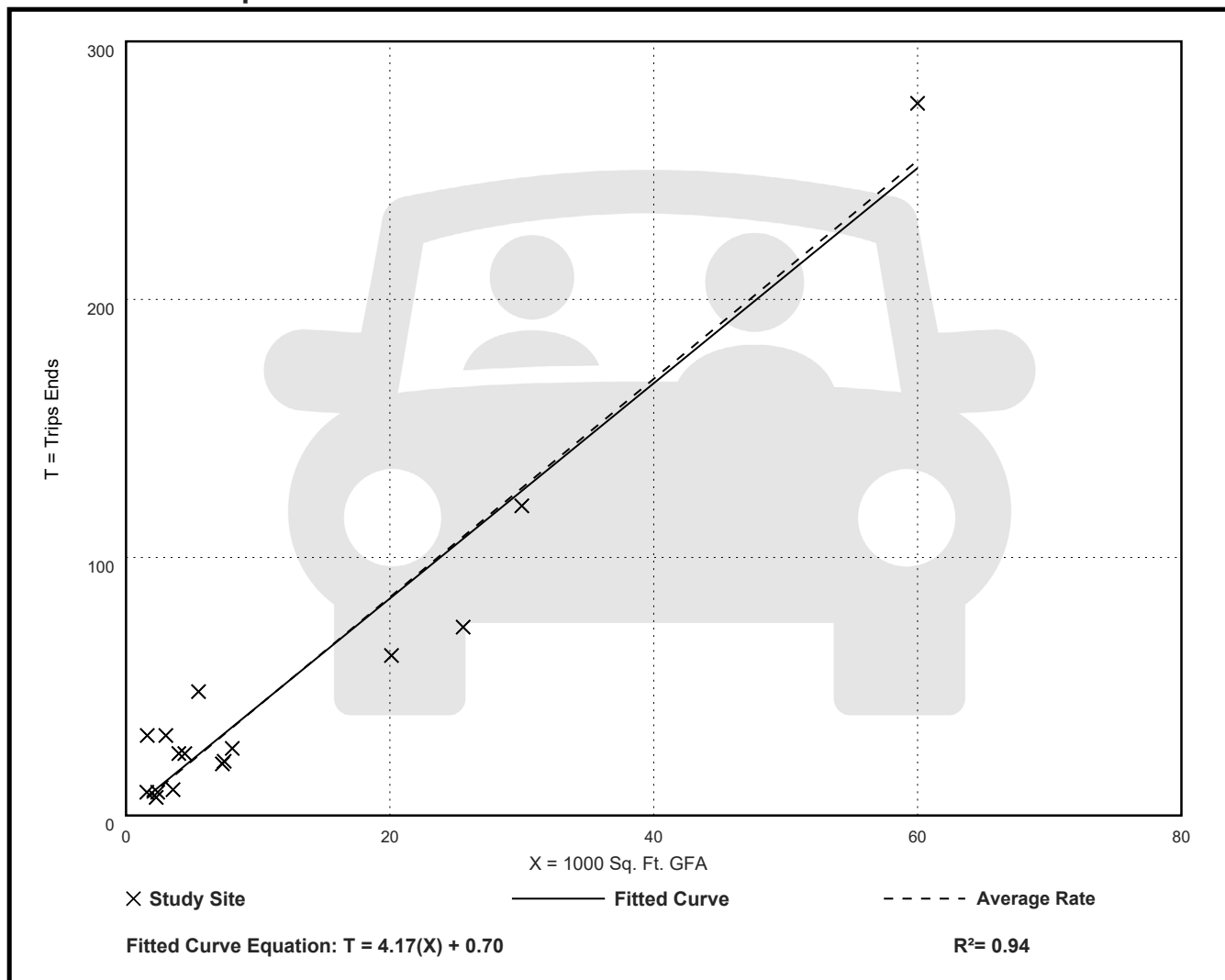
Avg. 1000 Sq. Ft. GFA: 12

Directional Distribution: 55% entering, 45% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.23	2.74 - 19.28	2.06

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,  
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 17

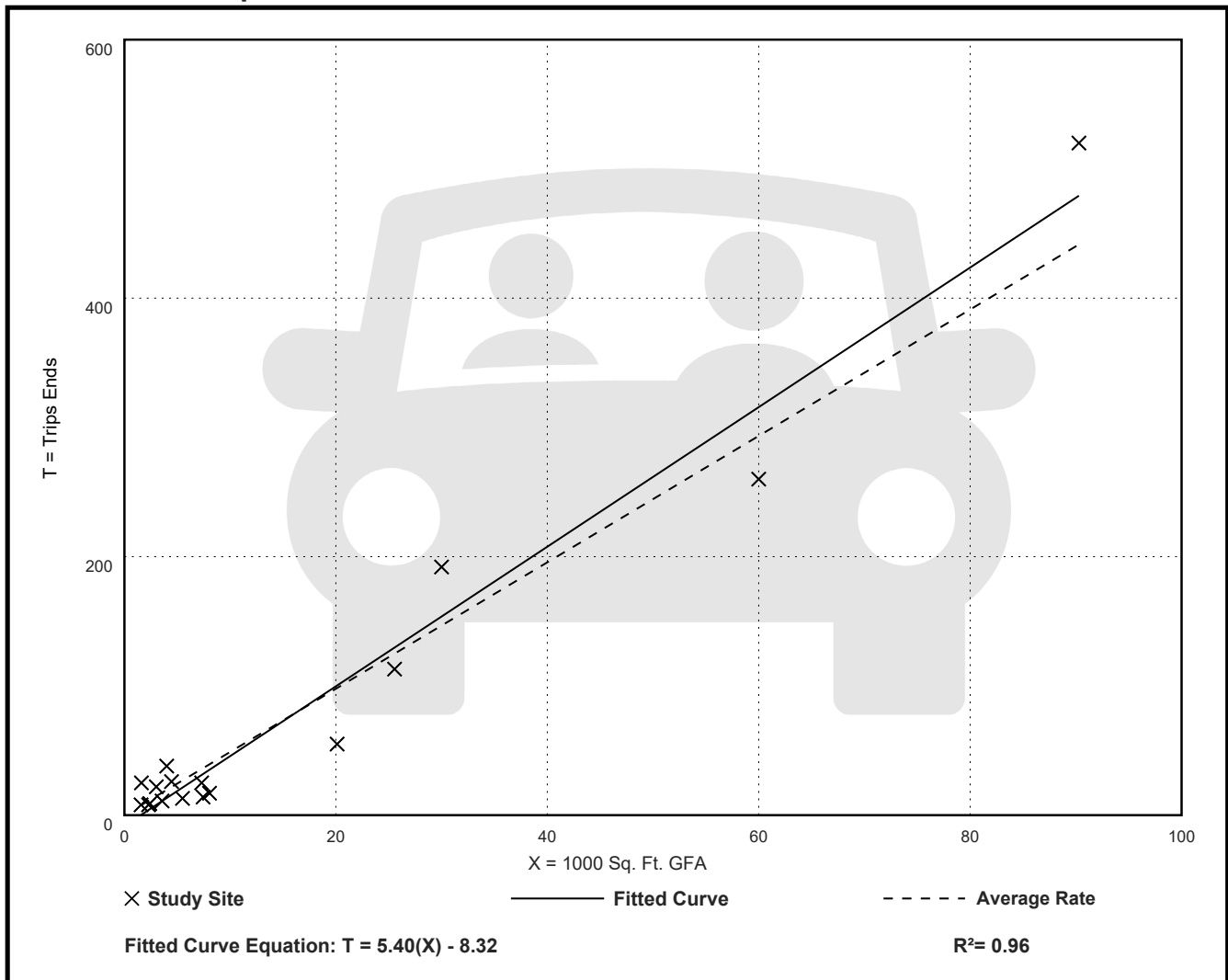
Avg. 1000 Sq. Ft. GFA: 16

Directional Distribution: 40% entering, 60% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.89	1.88 - 15.55	1.69

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Saturday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. 1000 Sq. Ft. GFA: 26

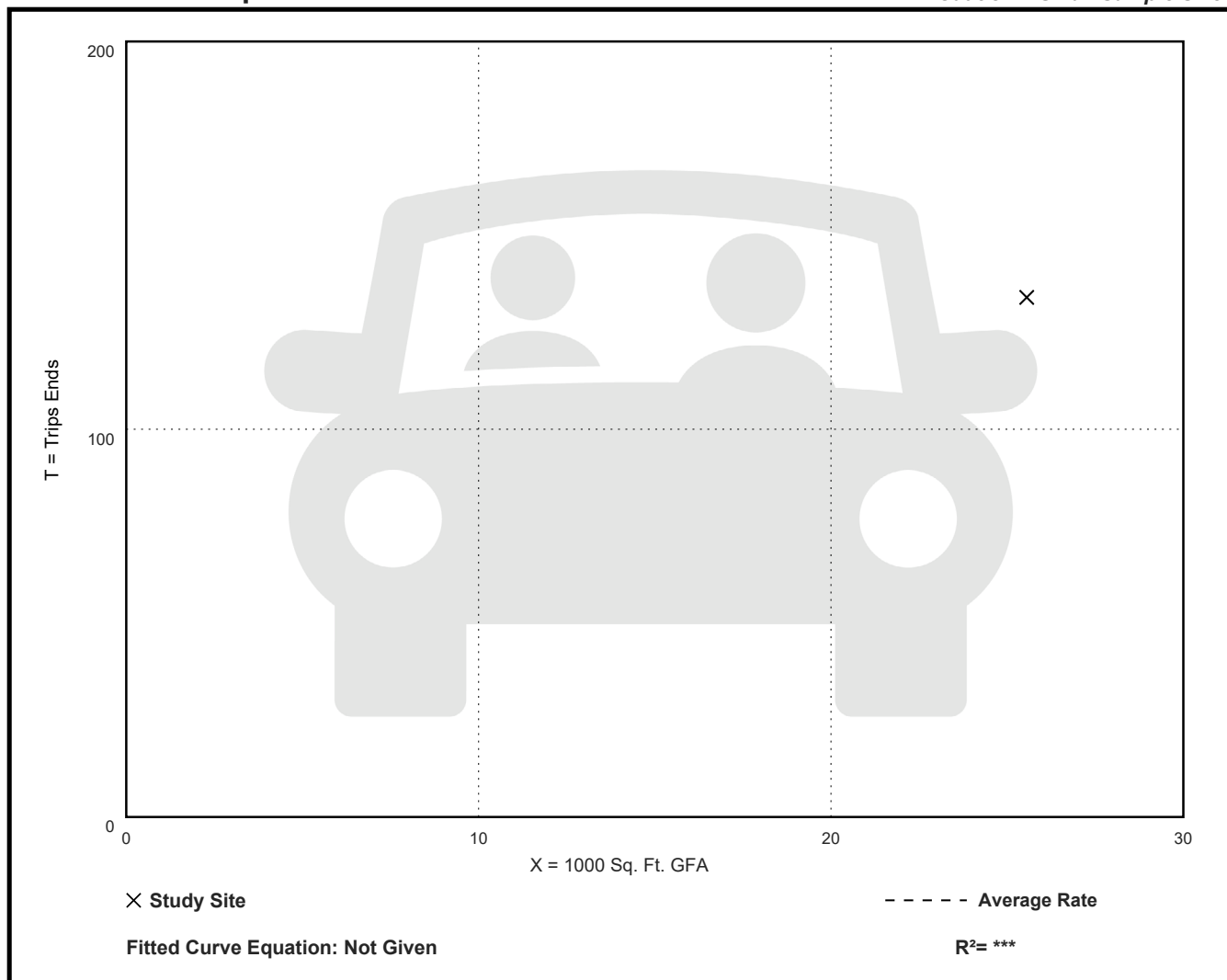
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
5.24	5.24 - 5.24	***

## Data Plot and Equation

Caution – Small Sample Size



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. 1000 Sq. Ft. GFA: 22

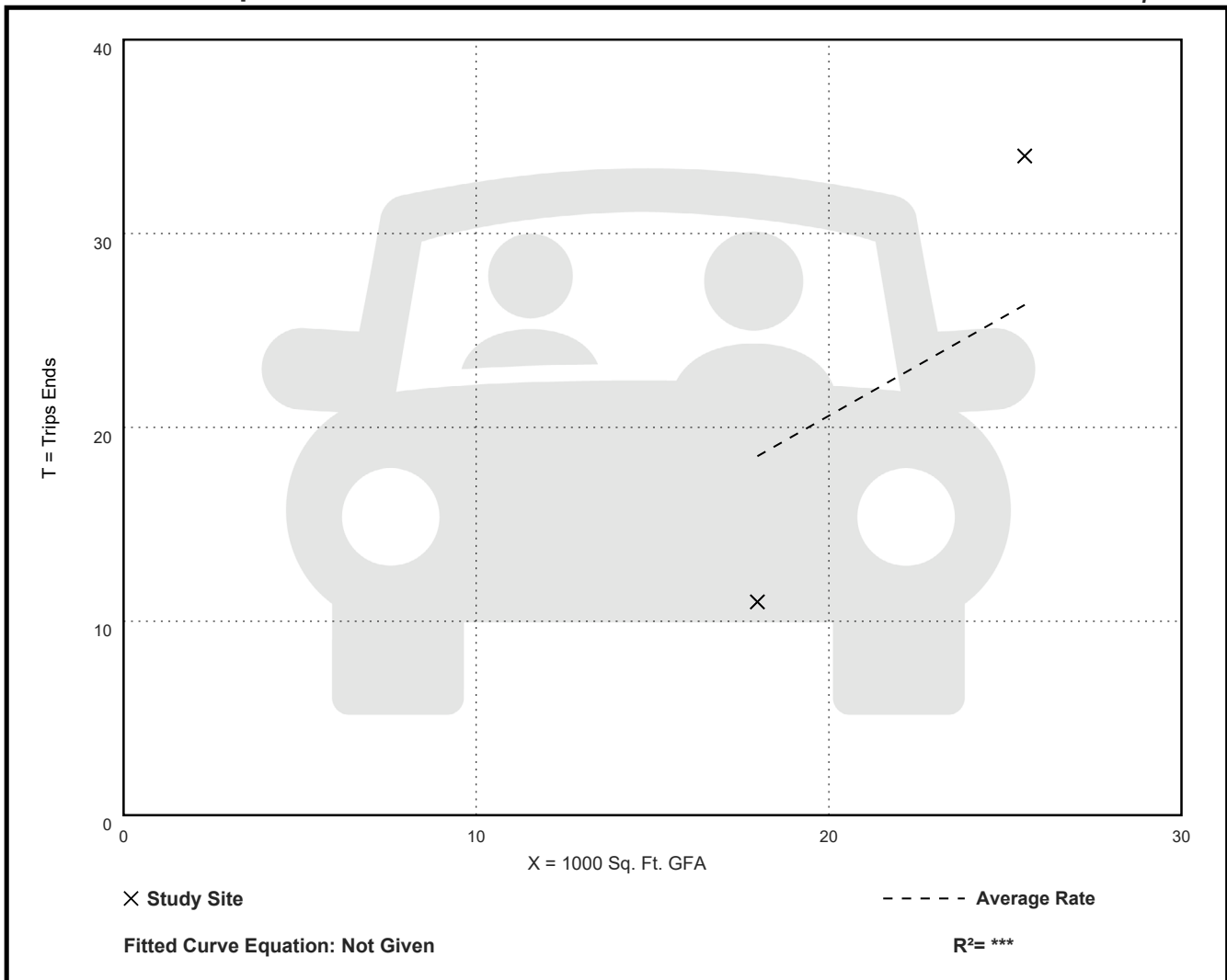
Directional Distribution: 55% entering, 45% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.03	0.61 - 1.33	***

## Data Plot and Equation

Caution – Small Sample Size



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. 1000 Sq. Ft. GFA: 26

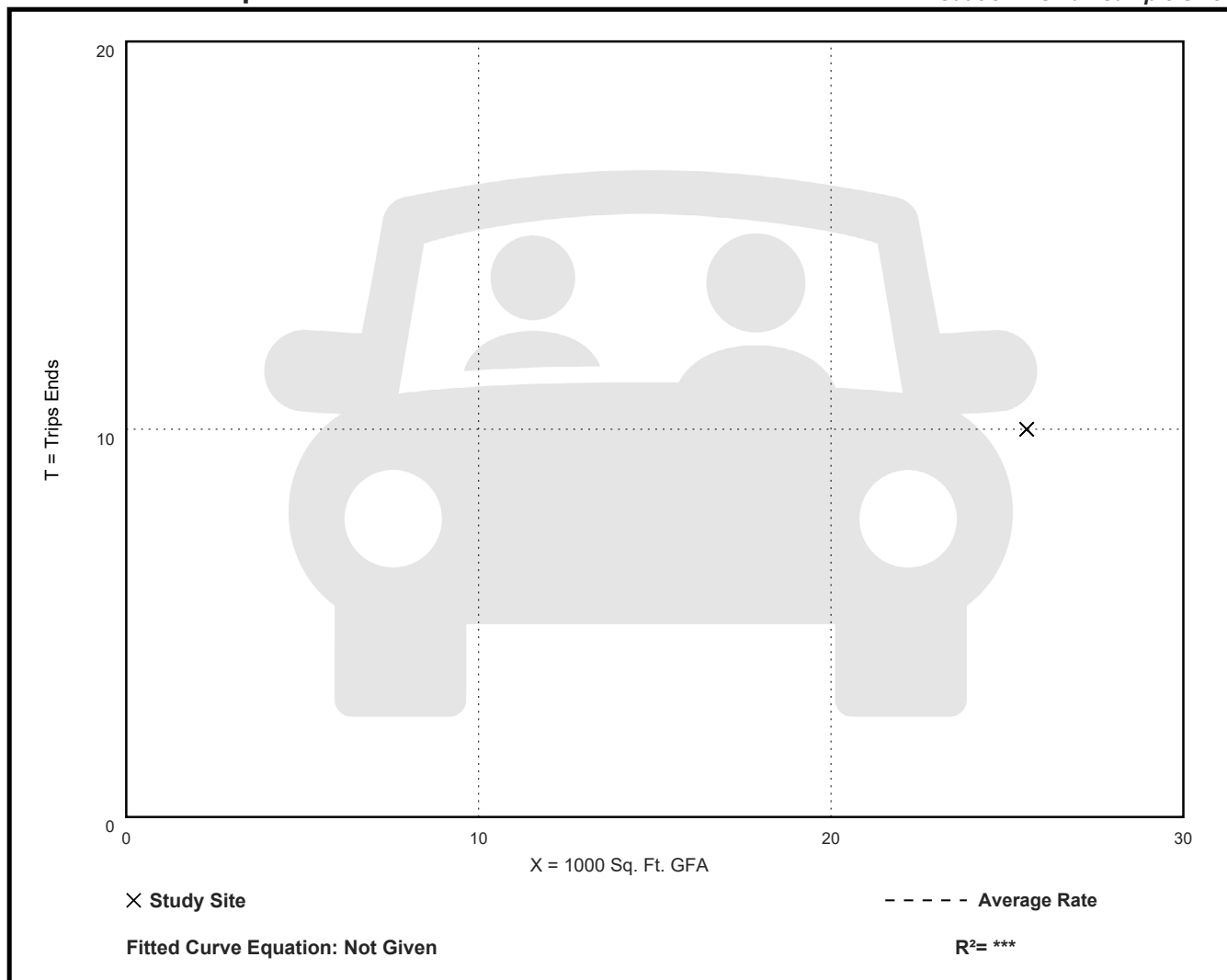
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.39	0.39 - 0.39	***

## Data Plot and Equation

Caution – Small Sample Size



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Sunday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. 1000 Sq. Ft. GFA: 26

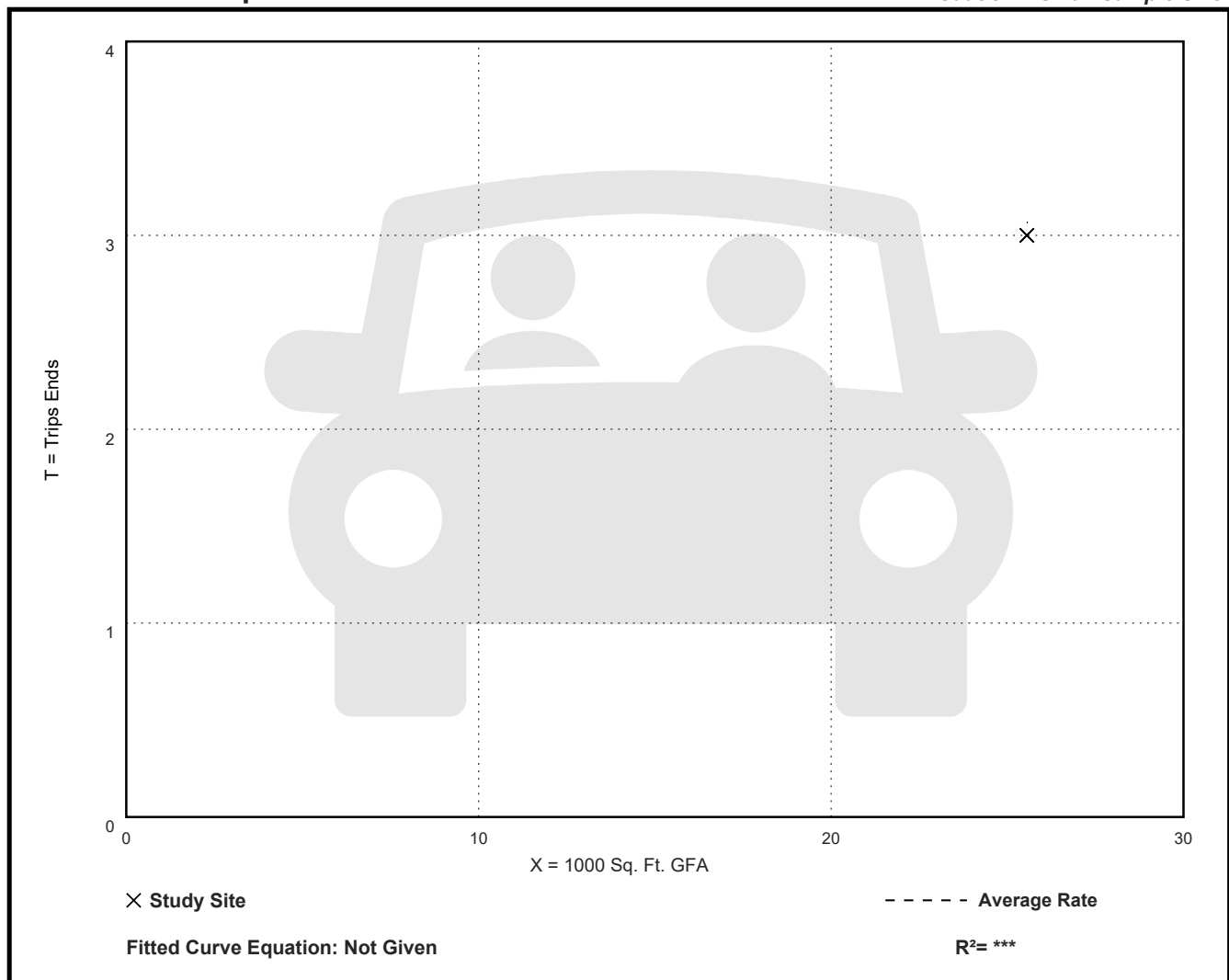
Directional Distribution: Not Available

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.12 - 0.12	***

## Data Plot and Equation

Caution – Small Sample Size



# Medical-Dental Office Building - Stand-Alone (720)

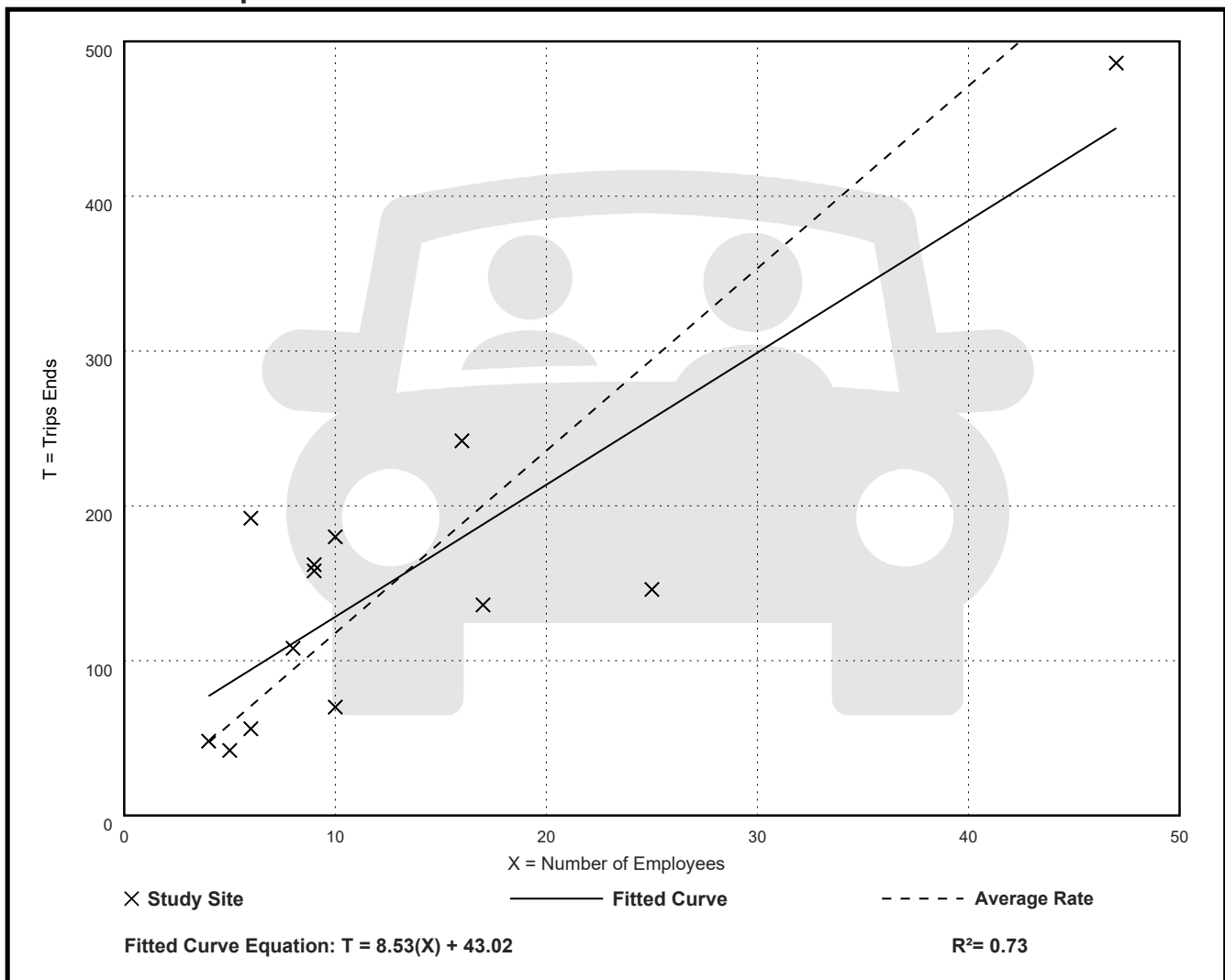
Vehicle Trip Ends vs: Employees  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 13  
Avg. Num. of Employees: 13  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
11.78	5.84 - 32.00	5.74

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 13

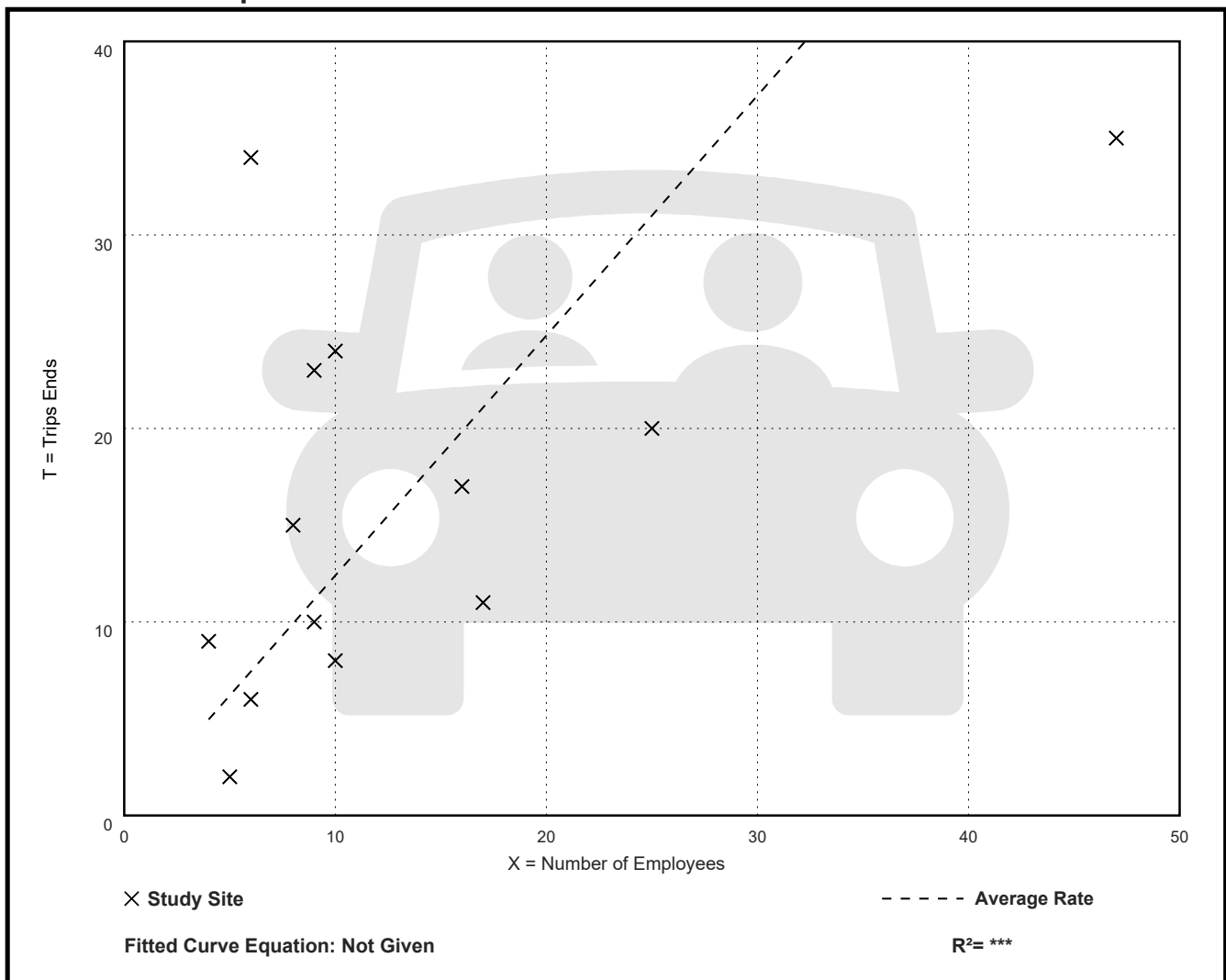
Avg. Num. of Employees: 13

Directional Distribution: 70% entering, 30% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.24	0.40 - 5.67	1.07

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 12

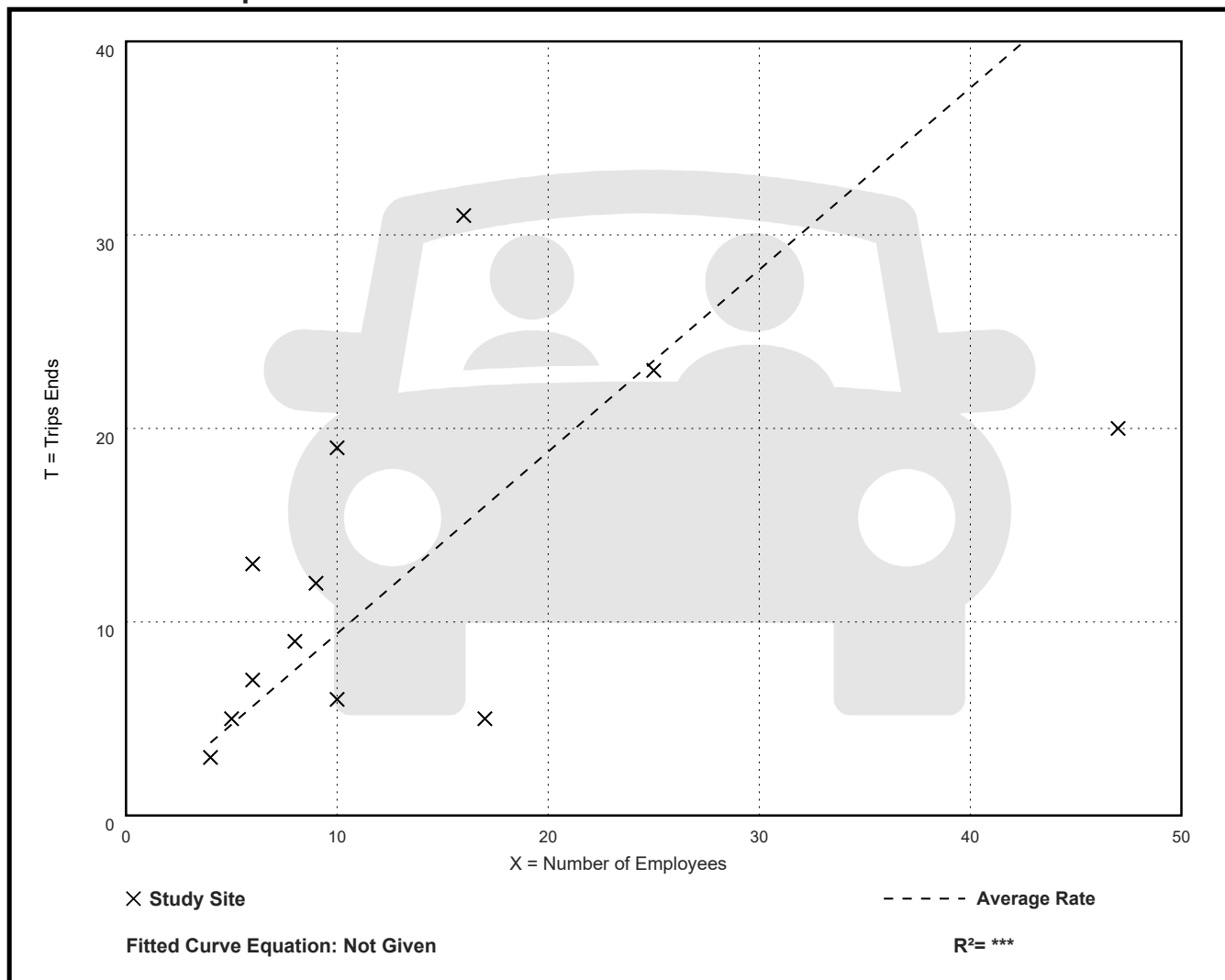
Avg. Num. of Employees: 14

Directional Distribution: 45% entering, 55% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.94	0.29 - 2.17	0.62

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 13

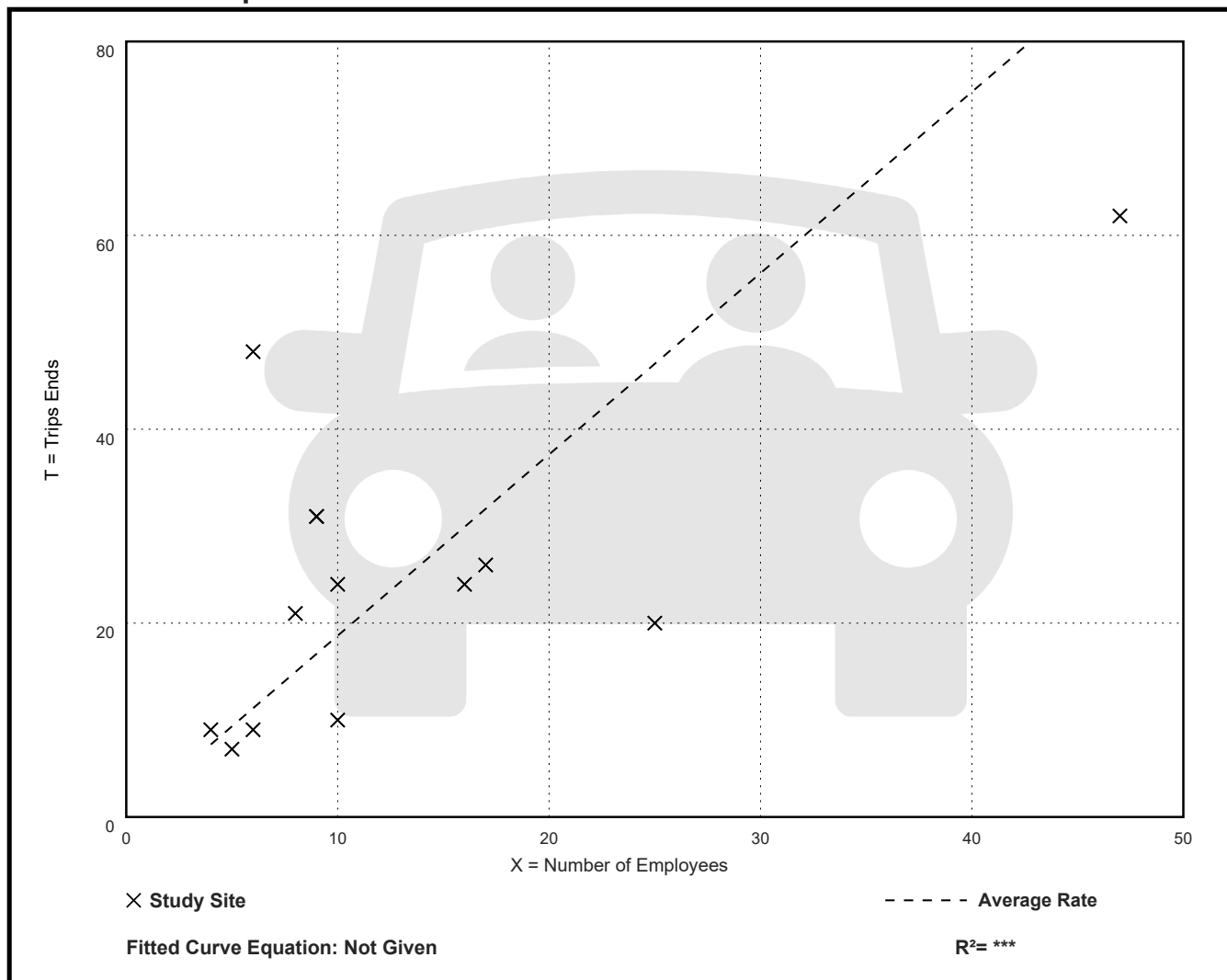
Avg. Num. of Employees: 13

Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.87	0.80 - 8.00	1.45

## Data Plot and Equation



# Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 13

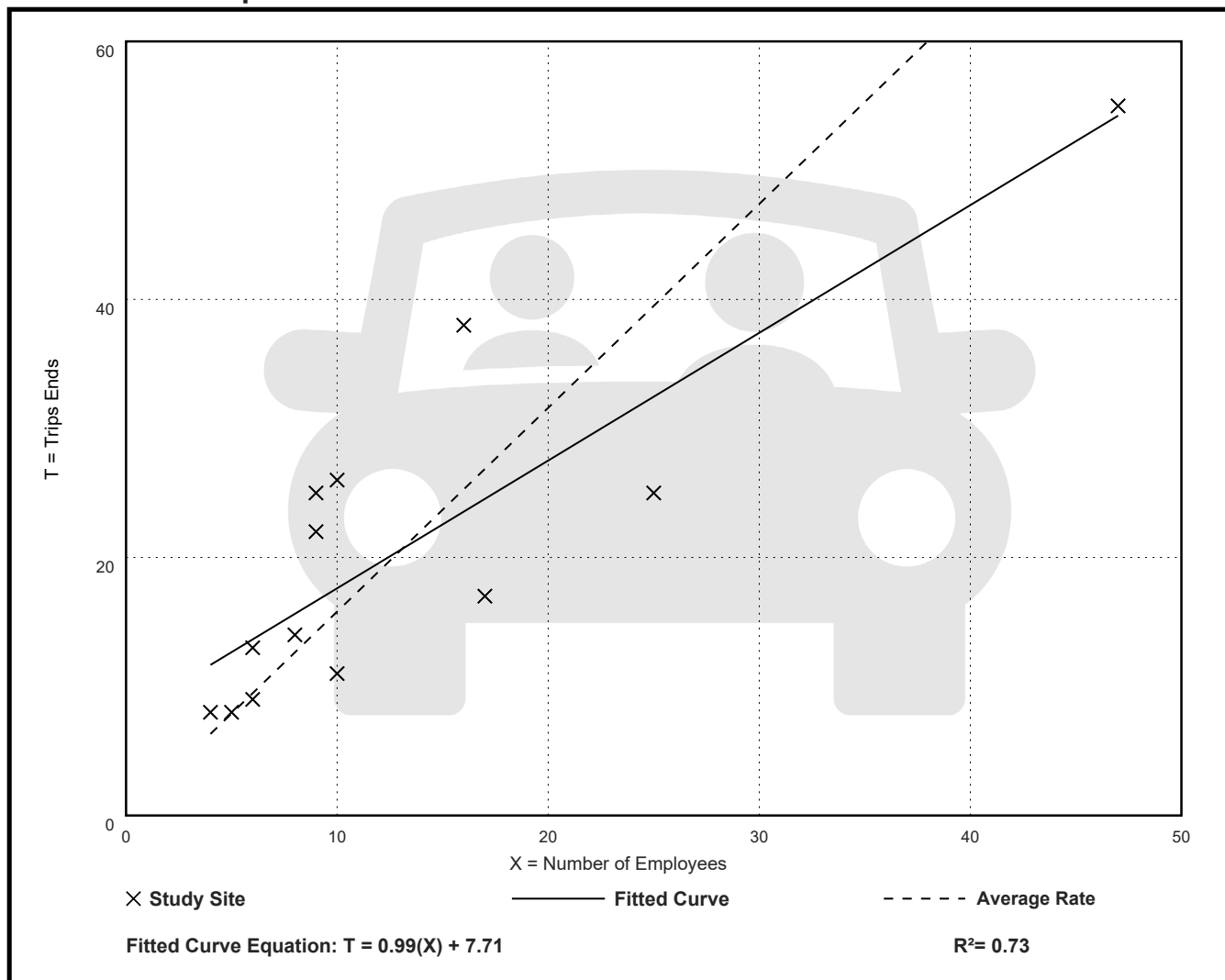
Avg. Num. of Employees: 13

Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.58	1.00 - 2.78	0.65

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 4

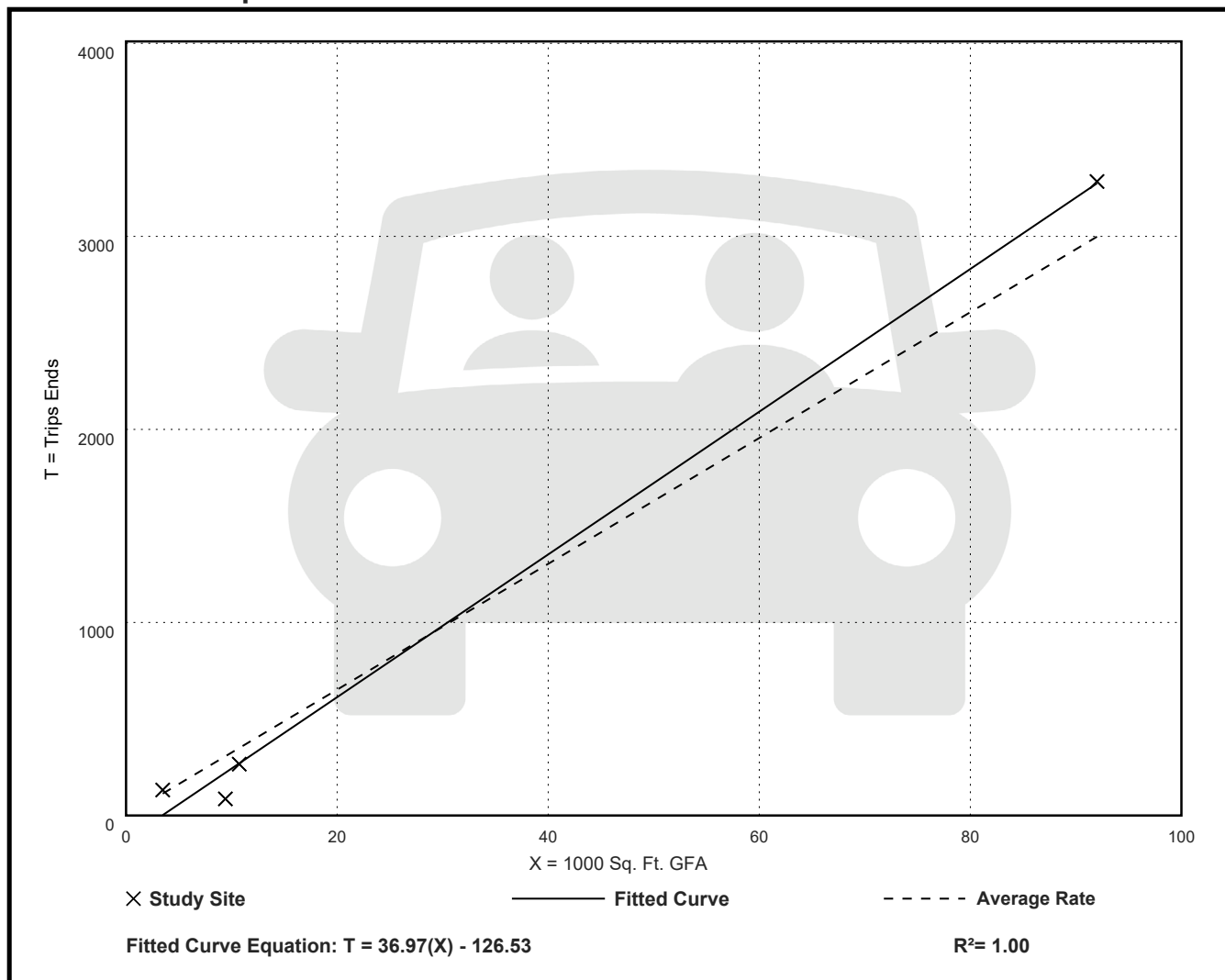
Avg. 1000 Sq. Ft. GFA: 29

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.59	9.14 - 37.99	8.87

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 5

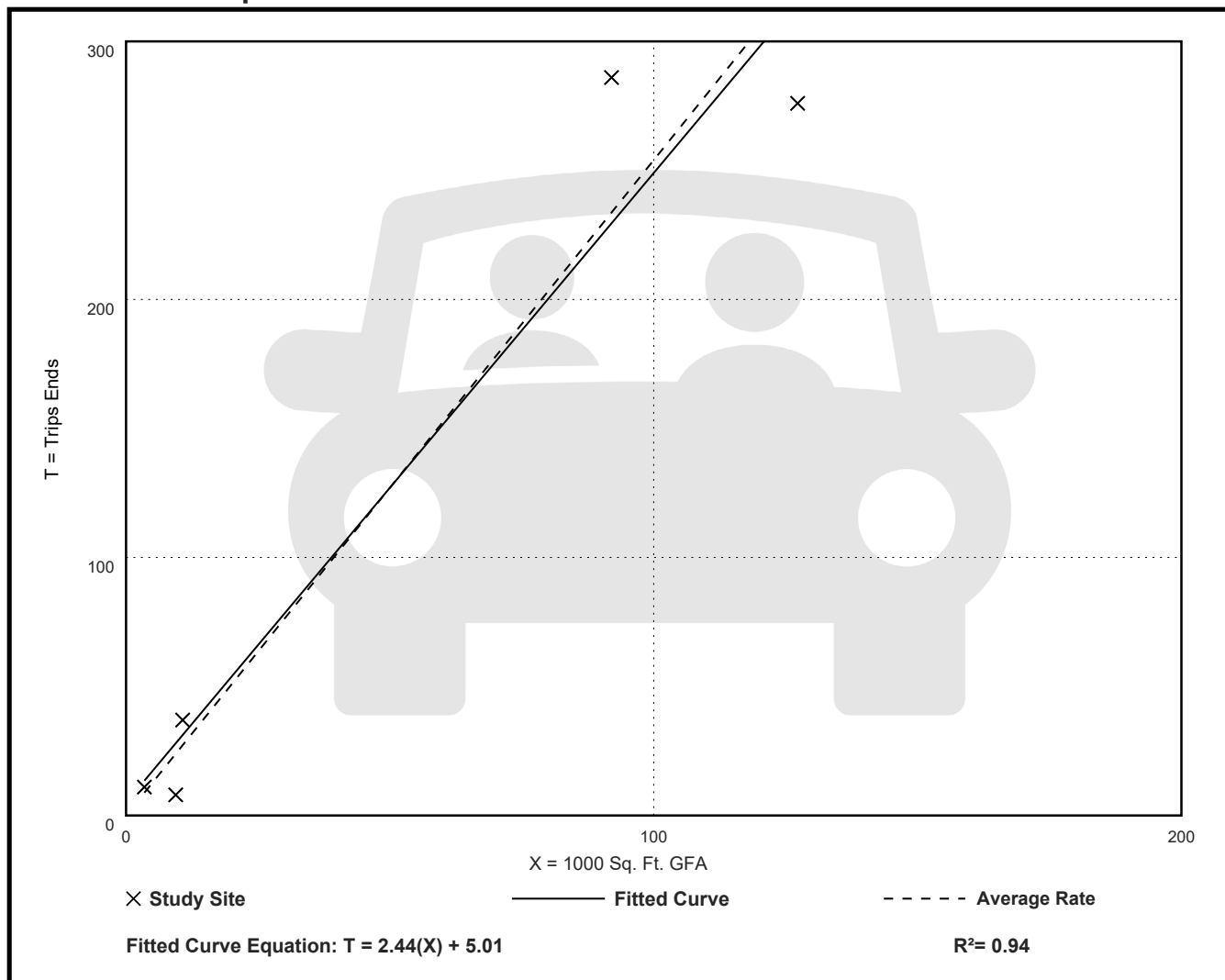
Avg. 1000 Sq. Ft. GFA: 49

Directional Distribution: 79% entering, 21% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.54	0.85 - 3.45	0.66

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 7

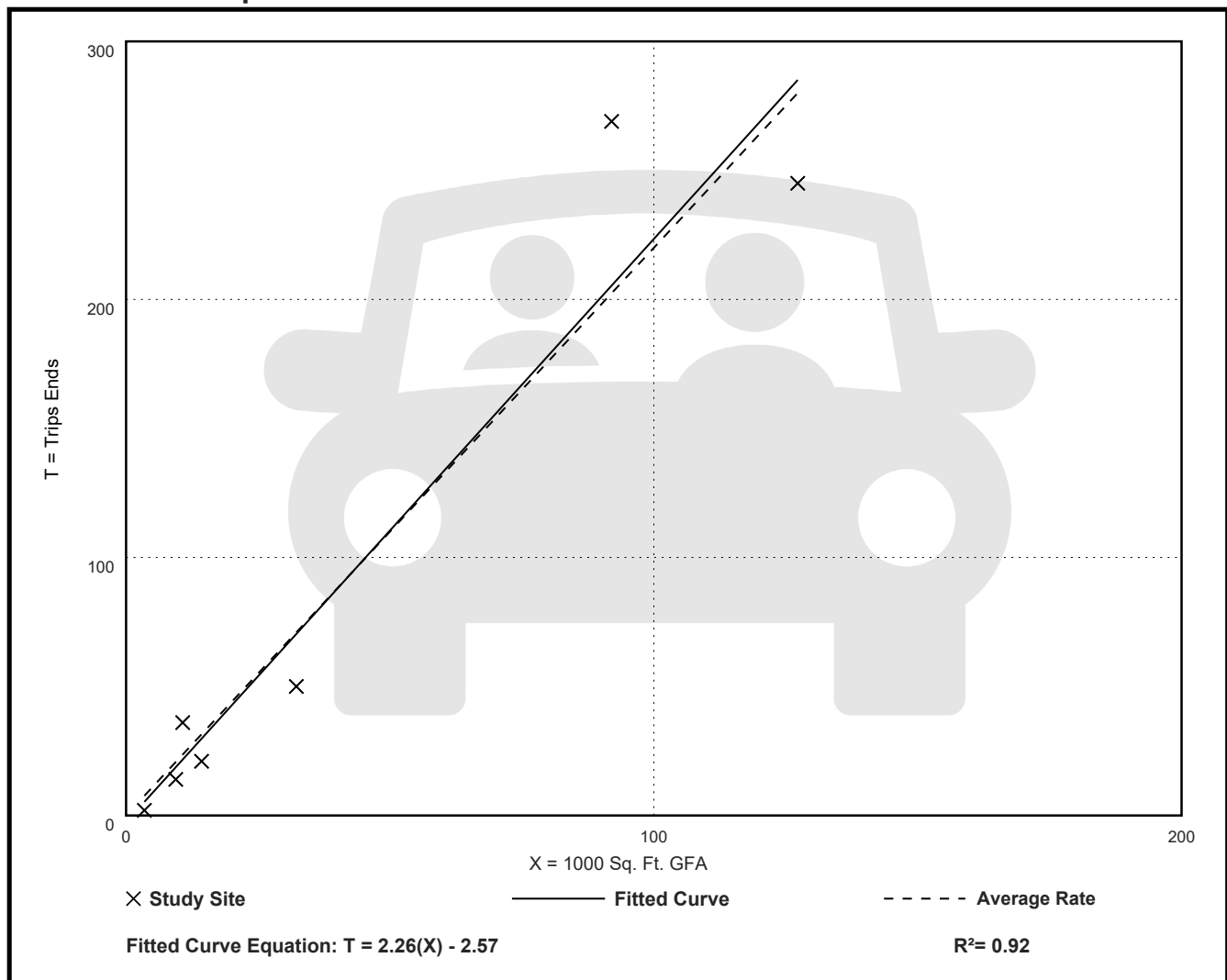
Avg. 1000 Sq. Ft. GFA: 41

Directional Distribution: 23% entering, 77% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.20	0.58 - 3.36	0.66

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 4

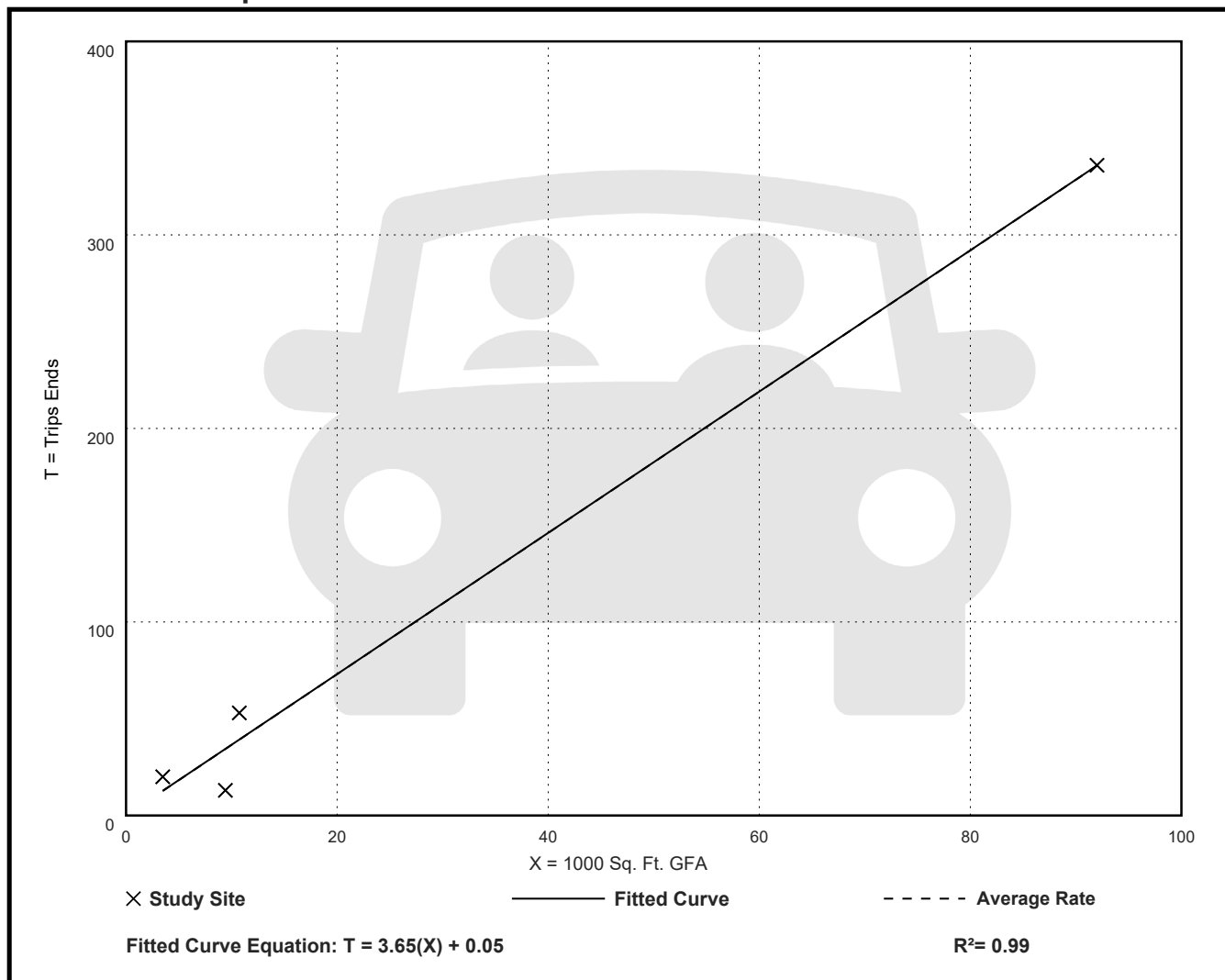
Avg. 1000 Sq. Ft. GFA: 29

Directional Distribution: 52% entering, 48% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.65	1.38 - 5.76	0.97

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 4

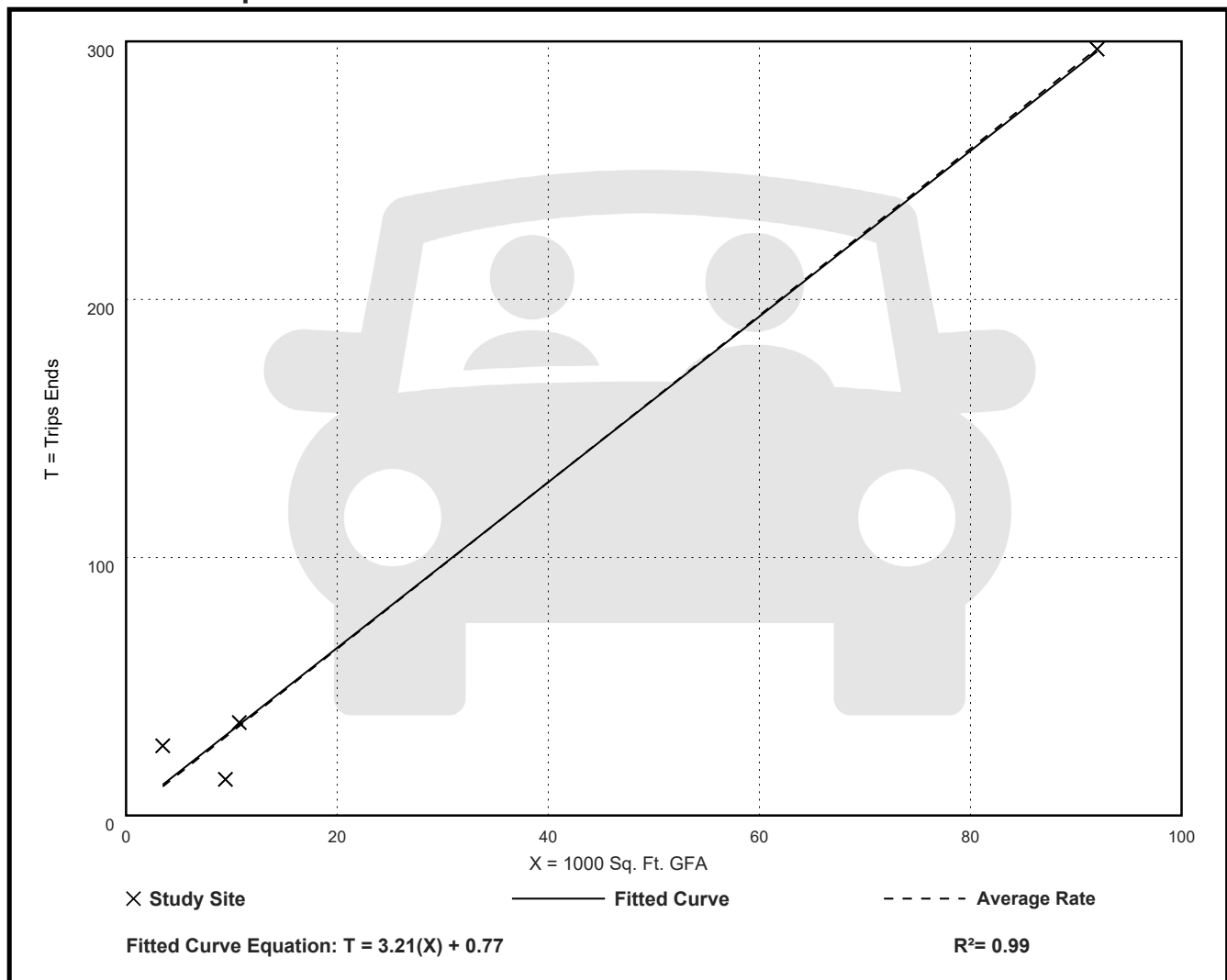
Avg. 1000 Sq. Ft. GFA: 29

Directional Distribution: 40% entering, 60% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.23	1.49 - 7.77	1.08

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

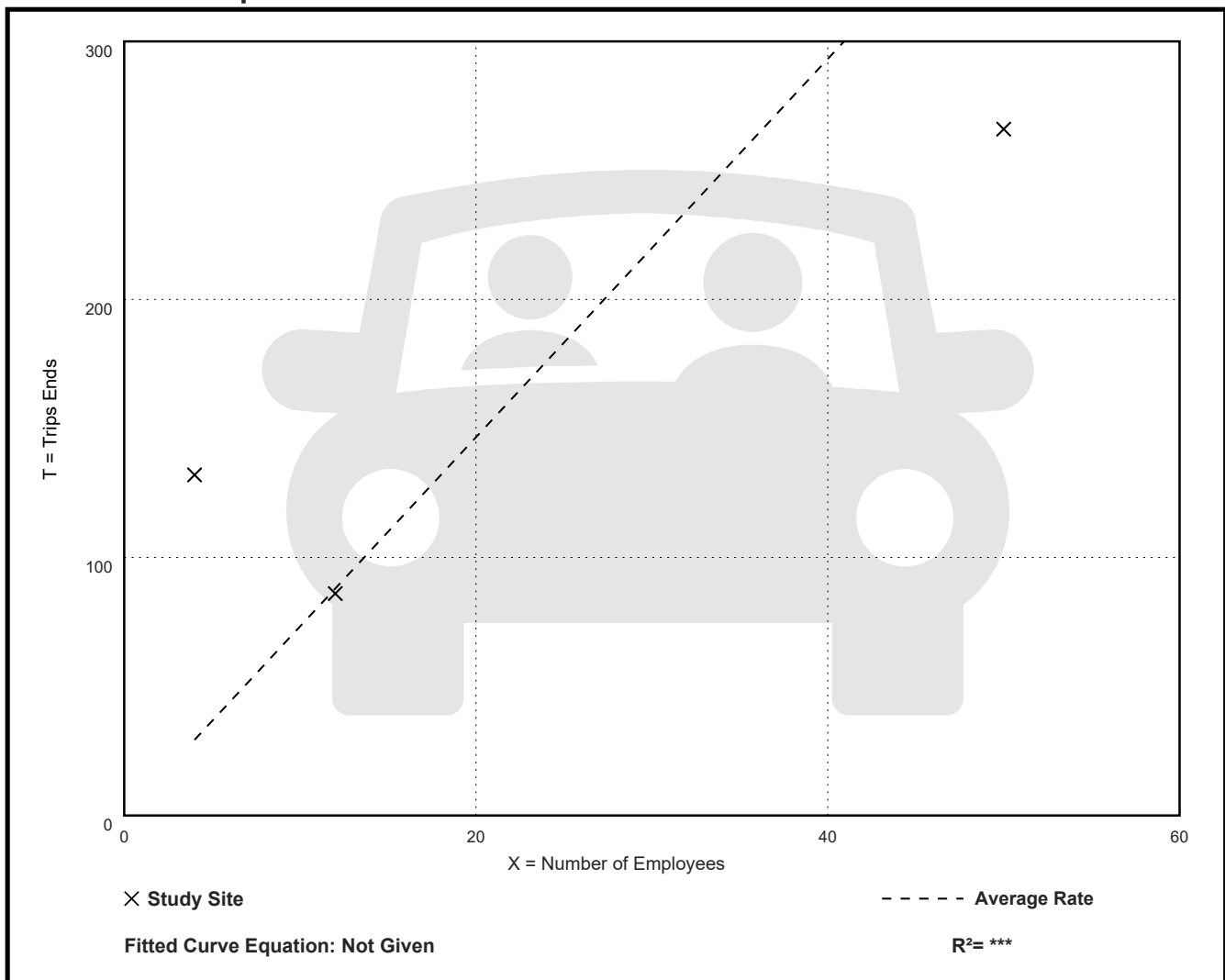
Vehicle Trip Ends vs: Employees  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 3  
Avg. Num. of Employees: 22  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
7.33	5.32 - 33.00	8.03

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

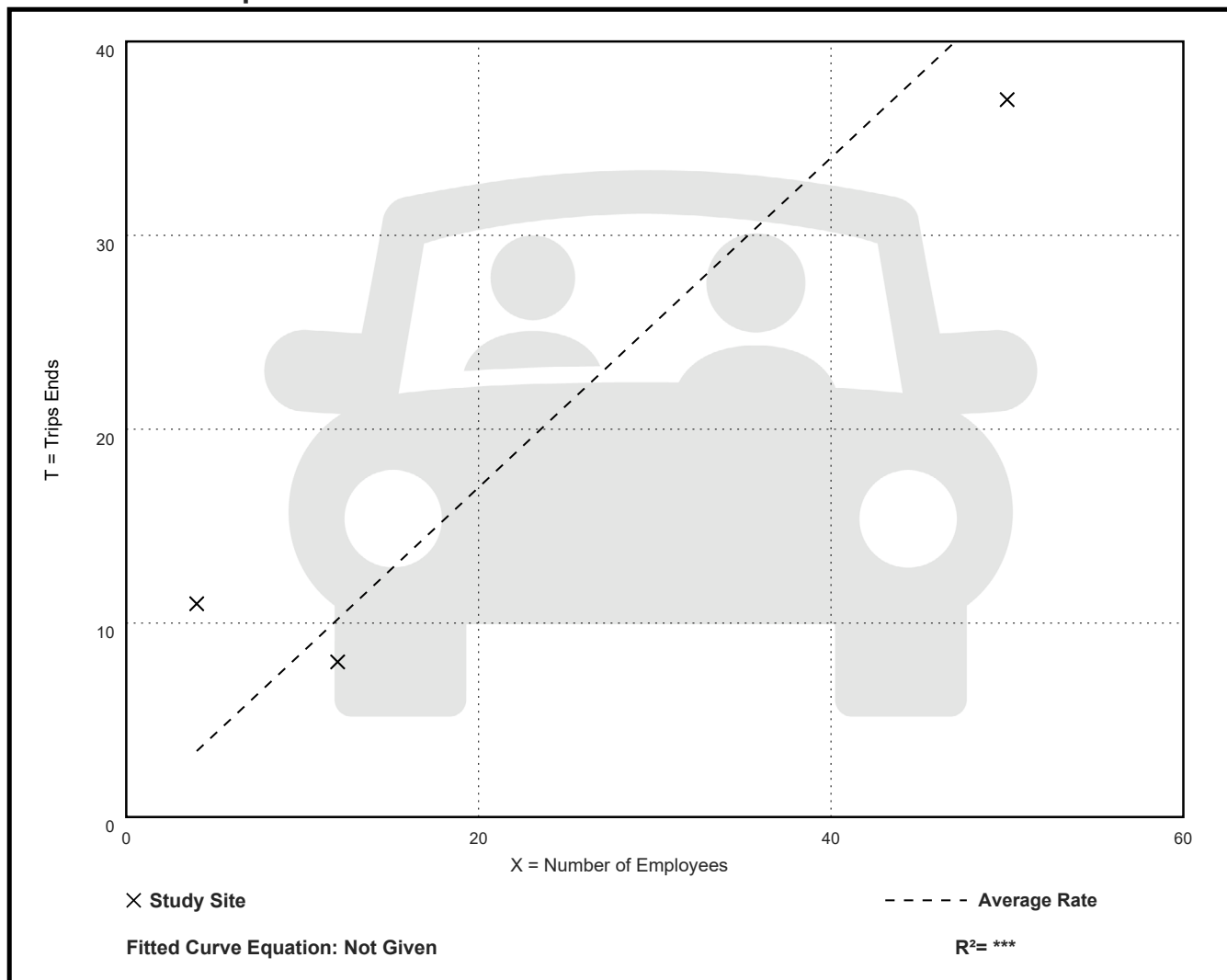
Avg. Num. of Employees: 22

Directional Distribution: 91% entering, 9% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.85	0.67 - 2.75	0.59

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

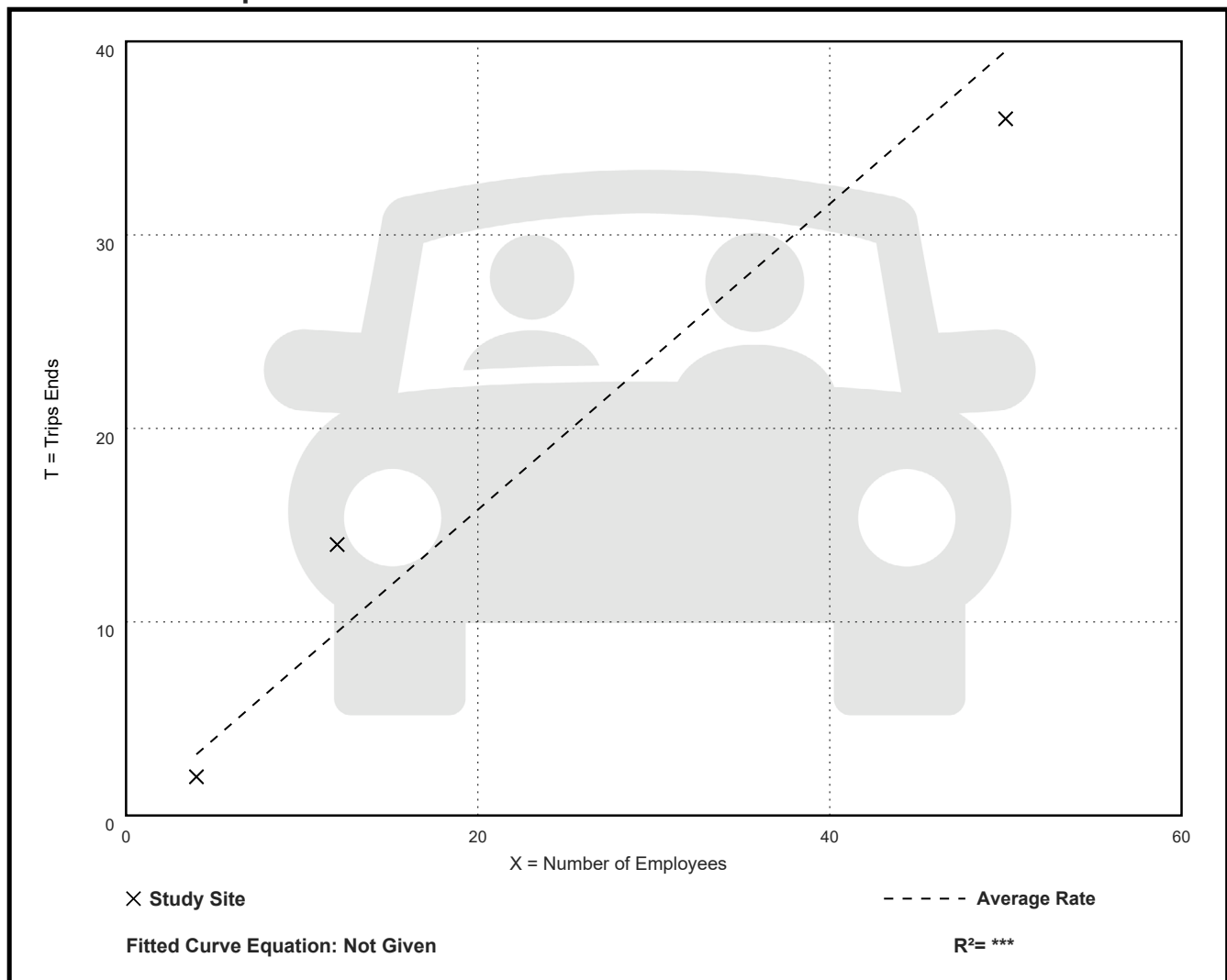
Avg. Num. of Employees: 22

Directional Distribution: 10% entering, 90% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
0.79	0.50 - 1.17	0.23

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 3

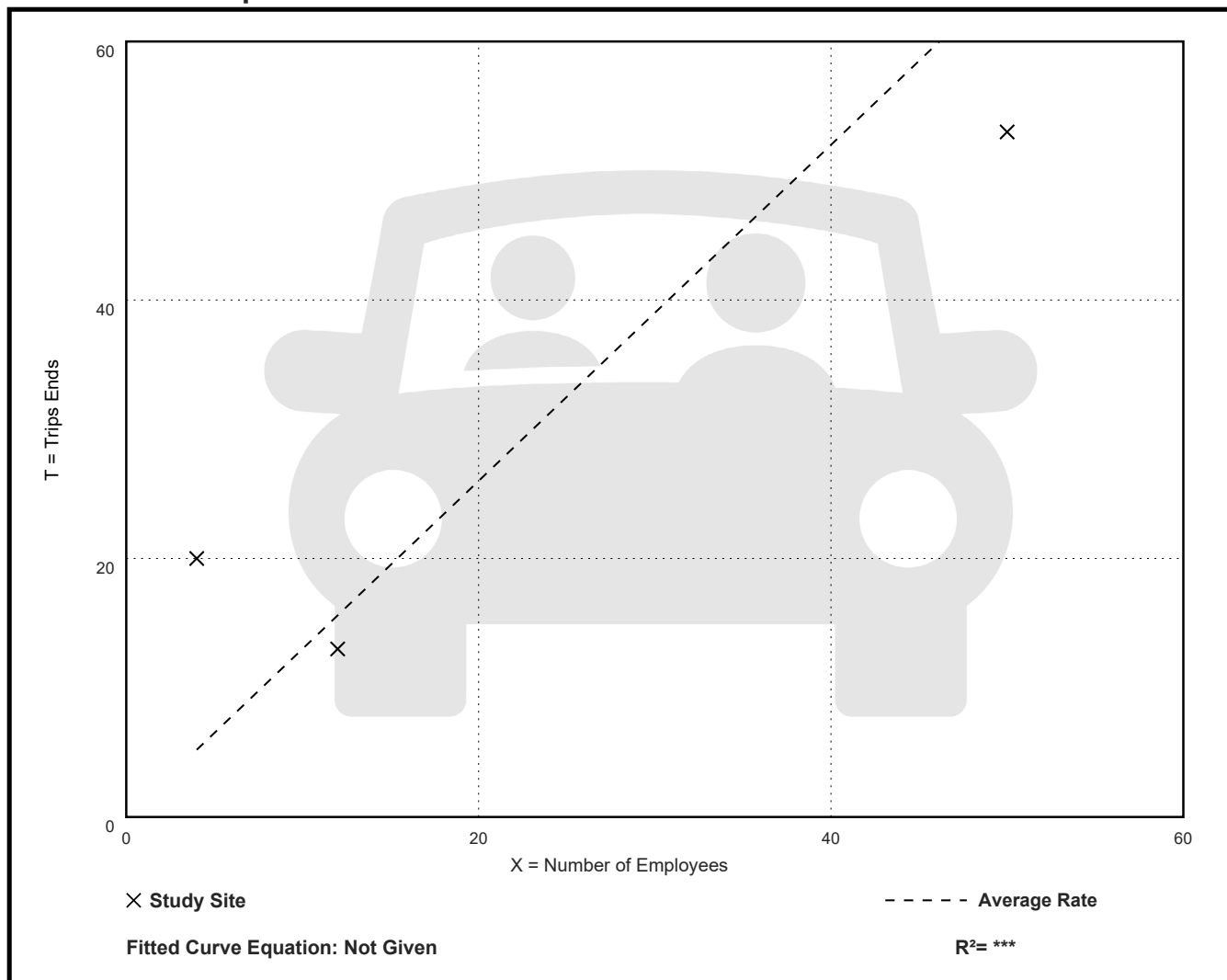
Avg. Num. of Employees: 22

Directional Distribution: 49% entering, 51% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.30	1.06 - 5.00	1.15

## Data Plot and Equation



# Medical-Dental Office Building Within/Near Hospital Campus (720)

Vehicle Trip Ends vs: Employees

On a: Weekday,

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 3

Avg. Num. of Employees: 22

Directional Distribution: 23% entering, 77% exiting

## Vehicle Trip Generation per Employee

Average Rate	Range of Rates	Standard Deviation
1.17	0.72 - 6.75	1.75

## Data Plot and Equation

