

Adam Young

Dr. Grimshaw

January 26, 2018

Class Participation 2: Preparation

#Response variable

#The response variable is whether or not the driver received a driving ticket.

#It is a categorical variable.

#Explanatory variables

#The explanatory variables are drinking alcohol, speeding in a work zone, gender, race

#age, month, hour and not wearing a seat belt.

#The variable that has the biggest effect on classifying a stop as resulting in a warning or a ticket is

#the hour of driving. This was typically between the hours of 11PM and 1AM.

#EDA: Frequency tables and proportion table for response variable.

SubAgency Accident Belts Personal.Injury Property.Damage

1228368	2nd district, Bethesda	No	No	No	No
1228369	2nd district, Bethesda	No	No	No	No
1228370	2nd district, Bethesda	No	No	No	No
1228371	3rd district, Silver Spring	No	No	No	No
1228372	3rd district, Silver Spring	No	No	No	No
1229571	1st district, Rockville	No	No	No	No

Commercial.License Alcohol Work.Zone Color Contributed.To.Accident Race Gender AutoYear

1228368	No	No	No	WHITE	No	HISPANIC	M	2003
1228369	No	No	No	WHITE	No	HISPANIC	M	2014
1228370	No	No	No	WHITE	No	BLACK	M	2005
1228371	No	No	No	WHITE	No	HISPANIC	M	2001
1228372	No	No	No	BLUE	No	BLACK	F	1997

1229571		No	No	No WHITE	No	WHITE	F	2010
---------	--	----	----	----------	----	-------	---	------

	Month	Hour	Out.of.State	Ticket
--	-------	------	--------------	--------

1228368	8	7	FALSE	FALSE
---------	---	---	-------	-------

1228369	8	7	FALSE	FALSE
---------	---	---	-------	-------

1228370	8	7	FALSE	FALSE
---------	---	---	-------	-------

1228371	8	22	FALSE	FALSE
---------	---	----	-------	-------

1228372	8	22	FALSE	FALSE
---------	---	----	-------	-------

1229571	8	8	FALSE	FALSE
---------	---	---	-------	-------

#The quantitative explanatory variables are month and hour.

#The categorical explanatory variables are drinking alcohol, speeding in a work zone, car accident,

#gender, race, age, and not wearing a seat belt.