

# Datasets on property fines of maintenance

## 1. Background description of this dataset

The city of Detroit in the United States issues millions of dollars in fines to residents every year. And many of these fines remain unpaid. The process to enforcing unpaid blight fines is costly and tedious, so the city really wants to explore how to increase blight ticket compliance based on available data.

In this dataset, each row corresponding to a single blight ticket, including information about when, why and to whom each ticket was issued. The target variable is compliance, which is True if the ticket was paid early, on time or within one month of the hearing date, False if the ticket was paid after the hearing date or not at all. Null for the compliance if the violator was found not responsible.

## 2. File descriptions

**fines.csv:** all tickets issued 2004-2011

**addresses.csv:** datasets mapping from the fine ticket id to addresses

**latlons.csv:** datasets mapping from addresses to latitude/longitude coordinates.

**Note:** misspelled addresses may be incorrectly geolocated.

## 3. Descriptions of the features of the dataset

ticket\_id - unique identifier for tickets

agency\_name - Agency that issued the ticket

inspector\_name - Name of inspector that issued the ticket

violator\_name - Name of the person/organization that the ticket was issued to

violation\_street\_number, violation\_street\_name, violation\_zip\_code - Address where the violation occurred

mailing\_address\_str\_number, mailing\_address\_str\_name, city, state, zip\_code, non\_us\_str\_code, country - Mailing address of the violator

ticket\_issued\_date - Date and time the ticket was issued

hearing\_date - Date and time the violator's hearing was scheduled

violation\_code, violation\_description - Type of violation

disposition - Judgment and judgement type

fine\_amount - Violation fine amount, excluding fees

admin\_fee - \$20 fee assigned to responsible judgments

state\_fee - \$10 fee assigned to responsible judgments

late\_fee - 10% fee assigned to responsible judgments

discount\_amount - discount applied, if any

clean\_up\_cost - DPW clean-up or graffiti removal cost

judgment\_amount - Sum of all fines and fees

graffiti\_status - Flag for graffiti violations

payment\_amount - Amount paid, if any

payment\_date - Date payment was made, if it was received  
payment\_status - Current payment status as of Feb 1 2017  
balance\_due - Fines and fees still owed  
collection\_status - Flag for payments in collections  
compliance [target variable for prediction]  
Null = Not responsible  
0 = Responsible, non-compliant  
1 = Responsible, compliant  
compliance\_detail - More information on why each ticket was marked compliant or non-compliant

#### **4. For your course project**

Based on the three provided datasets, you should propose your own research questions and analyze your data, preprocess your data, and then come to your conclusions after your explorations.