In [1]:
```
#This file was created by Ralph Brekan
from nose.tools import assert_equal, assert_true, assert_false
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd

# We check that you are running Python 3.  You need to use Python 3.
import sys
assert_equal(sys.version_info.major, 3)
```

Reads data from each of the yearly CSV files.

I put one in at a time and extracted the data.

In [75]:
```
data = pd.read_csv('data2018.csv')
data
```

Out[75]:

	cmte_id	state	employer	year	amount	party	adjusted
0	C00003418	OK	RICHARDSON RICHARDSON BOUDREAUX	2017	35	REP	35.854904
1	C00003418	GA	SELF-EMPLOYED	2017	500	REP	512.212916
2	C00003418	NJ	HOMEMAKER	2017	100	REP	102.442583
3	C00003418	VA	SELF-EMPLOYED	2017	250	REP	256.106458
4	C00003418	CA	UNIVERSITY OF LA VERNE	2017	40	REP	40.977033
...	...	...	...	...	...	...	...
6362448	C00196774	MA	NOT EMPLOYED	2018	15	DEM	15.000000
6362449	C00501197	DC	BRAILSFORD & DUNLAVEY	2018	25	DEM	25.000000
6362450	C00196774	MA	NOT EMPLOYED	2018	5	DEM	5.000000
6362451	C00196774	MA	PDH CONSULTING	2018	10	DEM	10.000000
6362452	C00196774	MA	NOT EMPLOYED	2018	100	DEM	100.000000

6362453 rows × 7 columns

Gets the total rep and dem donations across all states.

In [1132]:
```
dem = data.loc[data['party'] == 'DEM']
rep = data.loc[data['party'] == 'REP']
totalDem = round(dem['adjusted'].sum(skipna = True),2)
totalRep = round(rep['adjusted'].sum(skipna = True),2)
print('Total Dem: $' + str(totalDem))
print('Total Rep: $' + str(totalRep))
```

```
Total Dem: $469019941.44
Total Rep: $235003566.72
```

Get all of the state data separated.

In [76]:
```
NY = data.loc[data['state'] == 'NY']
AL = data.loc[data['state'] == 'AL']
AK = data.loc[data['state'] == 'AK']
AZ = data.loc[data['state'] == 'AZ']
AR = data.loc[data['state'] == 'AR']
CA = data.loc[data['state'] == 'CA']
CO = data.loc[data['state'] == 'CO']
CT = data.loc[data['state'] == 'CT']
DE = data.loc[data['state'] == 'DE']
FL = data.loc[data['state'] == 'FL']
GA = data.loc[data['state'] == 'GA']
HI = data.loc[data['state'] == 'HI']
ID = data.loc[data['state'] == 'ID']
IL = data.loc[data['state'] == 'IL']
IN = data.loc[data['state'] == 'IN']
IA = data.loc[data['state'] == 'IA']
KS = data.loc[data['state'] == 'KS']
KY = data.loc[data['state'] == 'KY']
LA = data.loc[data['state'] == 'LA']
ME = data.loc[data['state'] == 'ME']
MD = data.loc[data['state'] == 'MD']
MA = data.loc[data['state'] == 'MA']
MI = data.loc[data['state'] == 'MI']
MN = data.loc[data['state'] == 'MN']
MS = data.loc[data['state'] == 'MS']
MO = data.loc[data['state'] == 'MO']
MT = data.loc[data['state'] == 'MT']
NE = data.loc[data['state'] == 'NE']
NV = data.loc[data['state'] == 'NV']
NH = data.loc[data['state'] == 'NH']
NJ = data.loc[data['state'] == 'NJ']
NM = data.loc[data['state'] == 'NM']
NC = data.loc[data['state'] == 'NC']
ND = data.loc[data['state'] == 'ND']
OH = data.loc[data['state'] == 'OH']
OK = data.loc[data['state'] == 'OK']
OR = data.loc[data['state'] == 'OR']
PA = data.loc[data['state'] == 'PA']
RI = data.loc[data['state'] == 'RI']
SC = data.loc[data['state'] == 'SC']
SD = data.loc[data['state'] == 'SD']
TN = data.loc[data['state'] == 'TN']
TX = data.loc[data['state'] == 'TX']
UT = data.loc[data['state'] == 'UT']
VT = data.loc[data['state'] == 'VT']
VA = data.loc[data['state'] == 'VA']
WA = data.loc[data['state'] == 'WA']
WV = data.loc[data['state'] == 'WV']
WI = data.loc[data['state'] == 'WI']
WY = data.loc[data['state'] == 'WY']
```

This calculates the maximum input a among all of the states.

In [1134]:
```
maximum = max(round(NY['adjusted'].sum(skipna = True),2),
round(AL['adjusted'].sum(skipna = True),2),
round(AK['adjusted'].sum(skipna = True),2),
round(AZ['adjusted'].sum(skipna = True),2),
round(AR['adjusted'].sum(skipna = True),2),
round(CA['adjusted'].sum(skipna = True),2),
round(CO['adjusted'].sum(skipna = True),2),
round(CT['adjusted'].sum(skipna = True),2),
round(DE['adjusted'].sum(skipna = True),2),
round(FL['adjusted'].sum(skipna = True),2),
round(GA['adjusted'].sum(skipna = True),2),
round(HI['adjusted'].sum(skipna = True),2),
round(ID['adjusted'].sum(skipna = True),2),
round(IL['adjusted'].sum(skipna = True),2),
round(IN['adjusted'].sum(skipna = True),2),
round(IA['adjusted'].sum(skipna = True),2),
round(KS['adjusted'].sum(skipna = True),2),
round(KY['adjusted'].sum(skipna = True),2),
round(LA['adjusted'].sum(skipna = True),2),
round(ME['adjusted'].sum(skipna = True),2),
round(MD['adjusted'].sum(skipna = True),2),
round(MA['adjusted'].sum(skipna = True),2),
round(MI['adjusted'].sum(skipna = True),2),
round(MN['adjusted'].sum(skipna = True),2),
round(MS['adjusted'].sum(skipna = True),2),
round(MO['adjusted'].sum(skipna = True),2),
round(MT['adjusted'].sum(skipna = True),2),
round(NE['adjusted'].sum(skipna = True),2),
round(NV['adjusted'].sum(skipna = True),2),
round(NH['adjusted'].sum(skipna = True),2),
round(NJ['adjusted'].sum(skipna = True),2),
round(NM['adjusted'].sum(skipna = True),2),
round(NC['adjusted'].sum(skipna = True),2),
round(ND['adjusted'].sum(skipna = True),2),
round(OH['adjusted'].sum(skipna = True),2),
round(OK['adjusted'].sum(skipna = True),2),
round(OR['adjusted'].sum(skipna = True),2),
round(PA['adjusted'].sum(skipna = True),2),
round(RI['adjusted'].sum(skipna = True),2),
round(SC['adjusted'].sum(skipna = True),2),
round(SD['adjusted'].sum(skipna = True),2),
round(TN['adjusted'].sum(skipna = True),2),
round(TX['adjusted'].sum(skipna = True),2),
round(UT['adjusted'].sum(skipna = True),2),
round(VT['adjusted'].sum(skipna = True),2),
round(VA['adjusted'].sum(skipna = True),2),
round(WA['adjusted'].sum(skipna = True),2),
round(WV['adjusted'].sum(skipna = True),2),
round(WI['adjusted'].sum(skipna = True),2),
round(WY['adjusted'].sum(skipna = True),2))
maximum
```

Out[1134]: 163611900.8

Gets the total number of democratic donations per state.

In [1135]:
```
NYdem = round(NY.loc[NY['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
ALdem = round(AL.loc[AL['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
AKdem = round(AK.loc[AK['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
AZdem = round(AZ.loc[AZ['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
ARdem = round(AR.loc[AR['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
CAdem = round(CA.loc[CA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
COdem = round(CO.loc[CO['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
CTdem = round(CT.loc[CT['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
DEdem = round(DE.loc[DE['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
FLdem = round(FL.loc[FL['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
GAdem = round(GA.loc[GA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
HIdem = round(HI.loc[HI['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
IDdem = round(ID.loc[ID['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
ILdem = round(IL.loc[IL['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
INdem = round(IN.loc[IN['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
IAdem = round(IA.loc[IA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
KSdem = round(KS.loc[KS['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
KYdem = round(KY.loc[KY['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
LAdem = round(LA.loc[LA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MEdem = round(ME.loc[ME['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MDdem = round(MD.loc[MD['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MAdem = round(MA.loc[MA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MIdem = round(MI.loc[MI['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MNdem = round(MN.loc[MN['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MSdem = round(MS.loc[MS['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MOdem = round(MO.loc[MO['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
MTdem = round(MT.loc[MT['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NEdem = round(NE.loc[NE['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NVdem = round(NV.loc[NV['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NHdem = round(NH.loc[NH['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NJdem = round(NJ.loc[NJ['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NMdem = round(NM.loc[NM['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NCdem = round(NC.loc[NC['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
NDdem = round(ND.loc[ND['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
OHdem = round(OH.loc[OH['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
OKdem = round(OK.loc[OK['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
ORdem = round(OR.loc[OR['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
PAdem = round(PA.loc[PA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
RIdem = round(RI.loc[RI['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
SCdem = round(SC.loc[SC['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
SDdem = round(SD.loc[SD['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
TNdem = round(TN.loc[TN['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
TXdem = round(TX.loc[TX['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
UTdem = round(UT.loc[UT['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
VTdem = round(VT.loc[VT['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
VAdem = round(VA.loc[VA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
WAdem = round(WA.loc[WA['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
WVdem = round(WV.loc[WV['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
WIdem = round(WI.loc[WI['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
WYdem = round(WY.loc[WY['party'] == 'DEM']['adjusted'].sum(skipna = True), 2)
```

Gets the total number of republican contributions per state

In [1136]:
```
NYrep = round(NY.loc[NY['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
ALrep = round(AL.loc[AL['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
AKrep = round(AK.loc[AK['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
AZrep = round(AZ.loc[AZ['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
ARrep = round(AR.loc[AR['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
CArep = round(CA.loc[CA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
COrep = round(CO.loc[CO['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
CTrep = round(CT.loc[CT['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
DErep = round(DE.loc[DE['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
FLrep = round(FL.loc[FL['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
GArep = round(GA.loc[GA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
HIrep = round(HI.loc[HI['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
IDrep = round(ID.loc[ID['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
ILrep = round(IL.loc[IL['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
INrep = round(IN.loc[IN['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
IArep = round(IA.loc[IA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
KSrep = round(KS.loc[KS['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
KYrep = round(KY.loc[KY['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
LArep = round(LA.loc[LA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MErep = round(ME.loc[ME['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MDrep = round(MD.loc[MD['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MArep = round(MA.loc[MA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MIrep = round(MI.loc[MI['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MNrep = round(MN.loc[MN['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MSrep = round(MS.loc[MS['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MOrep = round(MO.loc[MO['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
MTrep = round(MT.loc[MT['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NErep = round(NE.loc[NE['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NVrep = round(NV.loc[NV['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NHrep = round(NH.loc[NH['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NJrep = round(NJ.loc[NJ['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NMrep = round(NM.loc[NM['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NCrep = round(NC.loc[NC['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
NDrep = round(ND.loc[ND['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
OHrep = round(OH.loc[OH['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
OKrep = round(OK.loc[OK['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
ORrep = round(OR.loc[OR['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
PArep = round(PA.loc[PA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
RIrep = round(RI.loc[RI['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
SCrep = round(SC.loc[SC['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
SDrep = round(SD.loc[SD['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
TNrep = round(TN.loc[TN['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
TXrep = round(TX.loc[TX['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
UTrep = round(UT.loc[UT['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
VTrep = round(VT.loc[VT['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
VArep = round(VA.loc[VA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
WArep = round(WA.loc[WA['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
WVrep = round(WV.loc[WV['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
WIrep = round(WI.loc[WI['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
WYrep = round(WY.loc[WY['party'] == 'REP']['adjusted'].sum(skipna = True), 2)
```

New York Data:

In [1137]:
```
print(NYrep)
print(NYdem)
```

```
14268600.98
62236350.93
```

Alabama Data:

In [1138]:
```
print(ALrep)
print(ALdem)
```

```
6581215.99
1089740.0
```

Alaska Data:

In [1139]:
```
print(AKrep)
print(AKdem)
```

```
788723.0
411687.0
```

Arizona Data:

In [1140]:
```
print(AZrep)
print(AZdem)
```

```
5596591.99
5394828.99
```

Arkansas Data:

In [1141]:
```
print(ARrep)
print(ARdem)
```

```
3066800.0
726238.0
```

California Data:

In [1142]:
```
print(CArep)
print(CAdem)
```

```
26370024.97
136253481.84
```

Colorodo Data:

In [1143]:
```
print(COrep)
print(COdem)
```

```
4726698.99
13142837.98
```

Connecticut Data:

In [1144]:
```
print(CTrep)
print(CTdem)
```

```
2372892.0
6947612.99
```

Delaware Data:

In [1145]:
```
print(DErep)
print(DEdem)
```

```
322421.0
1506852.0
```

Florida Data:

In [1146]:
```
print(FLrep)
print(FLdem)
```

```
16932179.98
19268968.98
```

Georgia Data:

In [1147]:
```
print(GArep)
print(GAdem)
```

```
9310304.99
6310334.99
```

Hawaii Data:

In [1148]:
```
print(HIrep)
print(HIdem)
```

```
398282.0
1622549.0
```

Idaho Data:

In [1149]:
```
print(IDrep)
print(IDdem)
```

```
571771.0
781930.0
```

Illinois Data:

In [1150]:
```
print(ILrep)
print(ILdem)
```

```
8025753.99
17796167.98
```

Indiana Data:

In [1151]:
```
print(INrep)
print(INdem)
```

```
2165110.0
3611228.0
```

Indiana Data:

In [1152]:
```
print(IArep)
print(IAdem)
```

```
2837084.0
3262693.0
```

Kentuky Data:

In [1153]:
```
print(KYrep)
print(KYdem)
```

```
2002817.0
1964591.0
```

Kansas Data:

In [1154]:
```
print(KSrep)
print(KSdem)
```

```
3577600.0
1419467.0
```

Louisiana Data:

In [1155]:
```
print(LArep)
print(LAdem)
```

```
3716617.0
1449942.0
```

Maine Data:

In [1156]:
```
print(MErep)
print(MEdem)
```

```
554283.0
1948986.0
```

Maryland Data:

In [1157]:
```
print(MDrep)
print(MDdem)
```

```
3174877.0
12400538.99
```

Massachusetts Data:

In [1158]:
```
print(MArep)
print(MAdem)
```

```
2743354.0
23554542.97
```

Michigan Data:

In [1159]:
```
print(MIrep)
print(MIdem)
```

```
8156006.99
8741125.99
```

Minnesota Data:

In [1160]:
```
print(MNrep)
print(MNdem)
```

```
2831110.0
6124313.99
```

Mississippi Data:

In [1161]:
```
print(MSrep)
print(MSdem)
```

```
1362706.0
347369.0
```

Missouri Data:

In [1162]:
```
print(MOrep)
print(MOdem)
```

```
4466993.99
2674772.0
```

Montana Data:

In [1163]:
```
print(MTrep)
print(MTdem)
```

```
1417080.0
1320710.0
```

Nebraska Data:

In [1164]:
```
print(NErep)
print(NEdem)
```

```
1240626.0
693448.0
```

Nevada Data:

In [1165]:
```
print(NVrep)
print(NVdem)
```

```
3911622.0
2945524.0
```

New Hampshire Data:

In [1166]:
```
print(NHrep)
print(NHdem)
```

```
743742.0
2116573.0
```

New Jersey Data:

In [1167]:
```
print(NJrep)
print(NJdem)
```

```
3978334.0
12842652.98
```

New Mexico Data:

In [1168]:
```
print(NMrep)
print(NMdem)
```

```
1296768.0
3275143.0
```

North Carolina Data:

In [1169]:
```
print(NCrep)
print(NCdem)
```

```
7723132.99
6295620.99
```

North Dakota Data:

In [1170]:
```
print(NDrep)
print(NDdem)
```

```
378553.0
159917.0
```

Ohio Data:

In [1171]:
```
print(OHrep)
print(OHdem)
```

```
6151687.99
3967584.0
```

Oklahoma Data:

In [1172]:
```
print(OKrep)
print(OKdem)
```

```
3207087.0
1616078.0
```

Oregon Data:

In [1173]:
```
print(ORrep)
print(ORdem)
```

```
1322326.0
4476948.99
```

Pennsylvania Data:

In [1174]:
```
print(PArep)
print(PAdem)
```

```
5417791.99
9526319.99
```

Rhode Island Data:

In [1175]:
```
print(RIrep)
print(RIdem)
```

```
252972.0
1278620.0
```

South Carolina Data:

In [1176]:
```
print(SCrep)
print(SCdem)
```

```
2971671.0
3052790.0
```

South Dakota Data:

In [1177]:
```
print(SDrep)
print(SDdem)
```

```
1007739.0
213566.0
```

Tennessee Data:

In [1178]:
```
print(TNrep)
print(TNdem)
```

```
8179916.99
3344399.0
```

Texas Data:

In [1179]:
```
print(TXrep)
print(TXdem)
```

```
26737005.97
25301737.97
```

Utah Data:

In [1180]:
```
print(UTrep)
print(UTdem)
```

```
1659025.0
1688989.0
```

Vermont Data:

In [1181]:
```
print(VTrep)
print(VTdem)
```

```
192129.0
953006.0
```

Virginia Data:

In [1182]:
```
print(VArep)
print(VAdem)
```

```
8129679.99
12027508.99
```

Wasington Data:

In [1183]:
```
print(WArep)
print(WAdem)
```

```
3580417.0
14437620.98
```

West Virginia Data:

In [1184]:
```
print(WVrep)
print(WVdem)
```

```
666655.0
257538.0
```

Wisconsin Data:

In [1185]:
```
print(WIrep)
print(WIdem)
```

```
2895666.0
2082988.0
```

Wyoming Data:

In [1186]:
```
print(WYrep)
print(WYdem)
```

```
894411.0
501865.0
```

This creates an array with all of the total values of all contributions given for each state.

In [77]:
```
arrayOfStateData = np.array([round(NY['adjusted'].sum(skipna = True),2),
round(AL['adjusted'].sum(skipna = True),2),
round(AK['adjusted'].sum(skipna = True),2),
round(AZ['adjusted'].sum(skipna = True),2),
round(AR['adjusted'].sum(skipna = True),2),
round(CA['adjusted'].sum(skipna = True),2),
round(CO['adjusted'].sum(skipna = True),2),
round(CT['adjusted'].sum(skipna = True),2),
round(DE['adjusted'].sum(skipna = True),2),
round(FL['adjusted'].sum(skipna = True),2),
round(GA['adjusted'].sum(skipna = True),2),
round(HI['adjusted'].sum(skipna = True),2),
round(ID['adjusted'].sum(skipna = True),2),
round(IL['adjusted'].sum(skipna = True),2),
round(IN['adjusted'].sum(skipna = True),2),
round(IA['adjusted'].sum(skipna = True),2),
round(KS['adjusted'].sum(skipna = True),2),
round(KY['adjusted'].sum(skipna = True),2),
round(LA['adjusted'].sum(skipna = True),2),
round(ME['adjusted'].sum(skipna = True),2),
round(MD['adjusted'].sum(skipna = True),2),
round(MA['adjusted'].sum(skipna = True),2),
round(MI['adjusted'].sum(skipna = True),2),
round(MN['adjusted'].sum(skipna = True),2),
round(MS['adjusted'].sum(skipna = True),2),
round(MO['adjusted'].sum(skipna = True),2),
round(MT['adjusted'].sum(skipna = True),2),
round(NE['adjusted'].sum(skipna = True),2),
round(NV['adjusted'].sum(skipna = True),2),
round(NH['adjusted'].sum(skipna = True),2),
round(NJ['adjusted'].sum(skipna = True),2),
round(NM['adjusted'].sum(skipna = True),2),
round(NC['adjusted'].sum(skipna = True),2),
round(ND['adjusted'].sum(skipna = True),2),
round(OH['adjusted'].sum(skipna = True),2),
round(OK['adjusted'].sum(skipna = True),2),
round(OR['adjusted'].sum(skipna = True),2),
round(PA['adjusted'].sum(skipna = True),2),
round(RI['adjusted'].sum(skipna = True),2),
round(SC['adjusted'].sum(skipna = True),2),
round(SD['adjusted'].sum(skipna = True),2),
round(TN['adjusted'].sum(skipna = True),2),
round(TX['adjusted'].sum(skipna = True),2),
round(UT['adjusted'].sum(skipna = True),2),
round(VT['adjusted'].sum(skipna = True),2),
round(VA['adjusted'].sum(skipna = True),2),
round(WA['adjusted'].sum(skipna = True),2),
round(WV['adjusted'].sum(skipna = True),2),
round(WI['adjusted'].sum(skipna = True),2),
round(WY['adjusted'].sum(skipna = True),2)])
arrayOfStateData
```

Out[77]:
```
array([1.90828209e+08, 1.30821681e+07, 3.77175173e+06, 2.91924048e+07,
       9.64507307e+06, 2.99554359e+08, 3.00775264e+07, 2.90772831e+07,
       3.19204415e+06, 1.81832793e+08, 3.44650800e+07, 5.11139070e+06,
       4.14516156e+06, 6.81145798e+07, 2.97715545e+07, 9.56128122e+06,
       1.26291653e+07, 1.29310355e+07, 1.41515587e+07, 8.43413887e+06,
       6.21005258e+07, 7.98693145e+07, 4.71198716e+07, 2.88441400e+07,
       8.88507764e+06, 2.96762947e+07, 1.51891842e+07, 7.85150992e+06,
       1.99569554e+07, 7.00283269e+06, 4.77024501e+07, 1.09230909e+07,
       2.87578749e+07, 4.53327135e+06, 4.47524858e+07, 1.11550718e+07,
       1.29903079e+07, 7.02226124e+07, 5.24355462e+06, 1.29519448e+07,
       3.90634091e+06, 4.07699154e+07, 1.55036670e+08, 1.00689867e+07,
       2.54081983e+06, 6.53491009e+07, 4.86949500e+07, 5.72142159e+06,
       2.24216937e+07, 4.65761044e+06])
```

This code gets the quantiles or all of the US data

In [78]:
```
decitiles = [
    round(np.percentile( arrayOfStateData, 10 ),2),
    round(np.percentile( arrayOfStateData, 20 ),2),
    round(np.percentile( arrayOfStateData, 30 ),2),
    round(np.percentile( arrayOfStateData, 40 ),2),
    round(np.percentile( arrayOfStateData, 50 ),2),
    round(np.percentile( arrayOfStateData, 60 ),2),
    round(np.percentile( arrayOfStateData, 70 ),2),
    round(np.percentile( arrayOfStateData, 80 ),2),
    round(np.percentile( arrayOfStateData, 90 ),2)
]
decitiles
```

Out[78]:
```
[4494460.37,
 6746550.47,
 9619935.52,
 12810287.44,
 14670371.46,
 28937397.27,
 31393792.51,
 47900950.11,
 71187282.62]
```