

2018 Total Property Tax Rates in Michigan

Notes: This python scripts scrapes PDFs from a 2018 Total Property Tax Rates listing from Michigan with different counties and creates a csv output file with the following items: **County, District, School District, tmResidence, tmNonHomestead, tmIndustrial, tmCommercial, tmSamResidence, and tmSamNonHomestead**. This PDF was tricky because there is hidden data in the TWP section titles and every few lines a separate line item was included. The PDF filename is not unique and is static.

PDF

2018 TOTAL PROPERTY TAX RATES IN MICHIGAN

		<i>w/ AdValorem Special Assessment Millage</i>					
<i>School District</i>	<i>Total Millage for Principal Residence or Ag Exemption</i>	<i>Total Millage NonHomestead</i>	<i>Total Millage Industrial Personal (IPP)</i>	<i>Total Millage Commercial Personal (CPP)</i>	<i>Total Millage for Principle Residence or Ag Exemption</i>	<i>Total Millage NonHomestead</i>	
COUNTY: Alcona							
<i>Alcona Twp</i>	ALCONA COMMUNITY SC	19.3869	37.3869	13.3869	25.3869	19.3869	37.3869
<i>Caledonia Twp</i>	ALCONA COMMUNITY SC	18.8531	36.8531	12.8531	24.8531	18.8531	36.8531
<i>Curtis Twp</i>	OSCODA AREA SCHOOLS	20.1581	38.1581	14.1581	26.1581	20.1581	38.1581
<i>Greenbush Twp</i>	OSCODA AREA SCHOOLS	18.7470	36.7470	12.7470	24.7470	18.7470	36.7470
<i>Gustin Twp</i>	ALCONA COMMUNITY SC	19.5664	37.5664	13.5664	25.5664	19.5664	37.5664
VILLAGE OF LINCOLN	ALCONA COMMUNITY SC	27.0364	45.0364	21.0364	33.0364	27.0364	45.0364
	OSCODA AREA SCHOOLS	20.6974	38.6974	14.6974	26.6974	20.6974	38.6974
<i>Harrisville Twp</i>	ALCONA COMMUNITY SC	16.3885	34.3885	10.3885	22.3885	16.3885	34.3885
<i>Hawes Twp</i>	ALCONA COMMUNITY SC	19.4136	37.4136	13.4136	25.4136	19.4136	37.4136
VILLAGE OF LINCOLN	ALCONA COMMUNITY SC	26.8836	44.8836	20.8836	32.8836	26.8836	44.8836
<i>Haynes Twp</i>	ALCONA COMMUNITY SC	17.3481	35.3481	11.3481	23.3481	17.3481	35.3481
<i>Mikado Twp</i>	ALCONA COMMUNITY SC	19.4770	37.4770	13.4770	25.4770	19.4770	37.4770
	OSCODA AREA SCHOOLS	20.6080	38.6080	14.6080	26.6080	20.6080	38.6080
<i>Millen Twp</i>	ALCONA COMMUNITY SC	19.4189	37.4189	13.4189	25.4189	19.4189	37.4189
<i>Mitchell Twp</i>	FAIRVIEW AREA SCHOOL	18.7562	36.7562	12.7562	24.7562	18.7562	36.7562
<i>Harrisville City</i>	ALCONA COMMUNITY SC	25.1846	43.1846	19.1846	31.1846	25.1846	43.1846

Python Code (20190730_MilageRates.py)

```
# Read and dump PDF file data to text file for Total Property Tax Rates in Michigan
# Accumatch
# by Michael Keller
# July 30, 2019
# requires pdfplumber, re, datetime

# Libraries
import pdfplumber
import re
from datetime import datetime

# Start Timer
start = datetime.now()

# Booleans
endOfPageFound = False
recordFound = False

# Variables
endOfPageString = '*See the disclaimers'
recordString = 'or Ag Exemption'
countyString = 'COUNTY:'
lastPageString = 'DISCLAIMERS:'
county = ''
twp = ''
schoolDistrict = ''
tmResidence = ''
tmNonHomestead = ''
tmIndustrial = ''
tmCommercial = ''
tmSamResidence = ''
tmSamNonHomestead = ''
tempString = ''
space = ' '
comma = ','
```

```
inputFile = '2018_TOTAL_RATES_-_report_648639_7.pdf'
outputType = '.csv'
outputFile = 'MichiganTaxRates'
filename = ''
count = 0
outString = []
_return = '\r'
colHeadings = 'County,District,School
District,tmResidence,tmNonHomestead,tmIndustrial,tmCommercial,tmSamResidence,tmSamNonHomestead'
```

```
# Messages
```

```
messageRun = 'Reading ' + inputFile + ' file . . .'
messageSaveBeg = 'Saving \''
messageSaveEnd = '\ ' file . . .'
messageEOL = '. . . end of line'
```

```
# PDF File Open
```

```
pdf = pdfplumber.open("2018_TOTAL_RATES_-_report_648639_7.pdf")
```

```
print(messageRun)
```

```
for page in pdf.pages:
```

```
    p1 = pdf.pages[count]
```

```
    count = count + 1
```

```
    pltext = p1.extract_text()
```

```
    text = pltext.splitlines()
```

```
## Break for Testing
```

```
## if(count == 3):
```

```
##     break
```

```
    for item in text:
```

```
        if(item[0:20] == endOfPageString):
```

```
            recordFound = False
```

```
            endOfPageFound = True
```

```
        if((recordFound == True) and (endOfPageFound == False)):
```

```

        if(len(item) <= 40):
            # check for county or district
            if(item[0:7] == countyString):
                county = item[8:len(item)].strip()
            elif(item[0:12] == lastPageString):
                endOfPageFound = True
            else:
                twp = item[0:len(item)].strip()
            else:
                # check for normal data line
                restOfLine = item.strip()
                carp = restOfLine.rsplit(space,6)
                schoolDistrict = carp[0].strip()
                tmResidence = carp[1].strip()
                tmNonHomestead = carp[2].strip()
                tmIndustrial = carp[3].strip()
                tmCommercial = carp[4].strip()
                tmSamResidence = carp[5].strip()
                tmSamNonHomestead = carp[6].strip()
                tempString = county + comma + twp + comma + schoolDistrict + comma + tmResidence
+ comma
                tempString = tempString + tmNonHomestead + comma + tmIndustrial + comma +
tmCommercial
                tempString = tempString + comma + tmSamResidence + comma + tmSamNonHomestead
                outString.append(tempString)

        if(item[0:15] == recordString):
            endOfPageFound = False
            recordFound = True

# PDF File Close
pdf.close()

filename = outputFile + outputType
print(messageSaveBeg + filename + messageSaveEnd)

# Create and open output file

```

```
try:
    file = open(filename, 'w')
    # Write out lines from array
    file.write(colHeadings + _return)
    # Now dump string array into file
    for taxLine in outString:
        file.write(taxLine + _return)
    file.close()
except PermissionError:
    print('ERROR: Unable able to open output file for writing. Is the file currently open?')

#end timer
print('Runtime: ' + str(datetime.now() - start))

print(messageEOL)

# EOF
```

CSV Output

	A	B	C	D	E	F	G	H	I
1	County	District	School District	tmResidence	tmNonHomestead	tmIndustrial	tmCommercial	tmSamResidence	tmSamNonHomestead
2	Alcona	Alcona Twp 011010	ALCONA COMMUNITY SC	19.3869	37.3869	13.3869	25.3869	19.3869	37.3869
3	Alcona	Caledonia Twp 011020	ALCONA COMMUNITY SC	18.8531	36.8531	12.8531	24.8531	18.8531	36.8531
4	Alcona	Curtis Twp 011030	OSCODA AREA SCHOOLS	20.1581	38.1581	14.1581	26.1581	20.1581	38.1581
5	Alcona	Greenbush Twp 011040	OSCODA AREA SCHOOLS	18.747	36.747	12.747	24.747	18.747	36.747
6	Alcona	Gustin Twp 011050	ALCONA COMMUNITY SC	19.5664	37.5664	13.5664	25.5664	19.5664	37.5664
7	Alcona	Gustin Twp 011050	VILLAGE OF LINCOLN ALCONA COMMUNITY SC	27.0364	45.0364	21.0364	33.0364	27.0364	45.0364
8	Alcona	Gustin Twp 011050	OSCODA AREA SCHOOLS	20.6974	38.6974	14.6974	26.6974	20.6974	38.6974
9	Alcona	Harrisville Twp 011060	ALCONA COMMUNITY SC	16.3885	34.3885	10.3885	22.3885	16.3885	34.3885
10	Alcona	Hawes Twp 011070	ALCONA COMMUNITY SC	19.4136	37.4136	13.4136	25.4136	19.4136	37.4136
11	Alcona	Hawes Twp 011070	VILLAGE OF LINCOLN ALCONA COMMUNITY SC	26.8836	44.8836	20.8836	32.8836	26.8836	44.8836
12	Alcona	Haynes Twp 011080	ALCONA COMMUNITY SC	17.3481	35.3481	11.3481	23.3481	17.3481	35.3481
13	Alcona	Mikado Twp 011090	ALCONA COMMUNITY SC	19.477	37.477	13.477	25.477	19.477	37.477
14	Alcona	Mikado Twp 011090	OSCODA AREA SCHOOLS	20.608	38.608	14.608	26.608	20.608	38.608
15	Alcona	Millen Twp 011100	ALCONA COMMUNITY SC	19.4189	37.4189	13.4189	25.4189	19.4189	37.4189
16	Alcona	Mitchell Twp 011110	FAIRVIEW AREA SCHOOL	18.7562	36.7562	12.7562	24.7562	18.7562	36.7562
17	Alcona	Harrisville City 012010	ALCONA COMMUNITY SC	25.1846	43.1846	19.1846	31.1846	25.1846	43.1846
18	Alger	Au Train Twp 021010	AUTRAIN-ONOTA PUBLIC	25.23	43.23	19.23	31.23	25.23	43.23
19	Alger	Au Train Twp 021010	MUNISING PUBLIC SCHOO	27.42	45.42	21.42	33.42	27.42	45.42
20	Alger	Au Train Twp 021010	SUPERIOR CENTRAL SCH	32.4185	50.4185	26.4185	38.4185	32.4185	50.4185
21	Alger	Burt Twp 021020	BURT TOWNSHIP SCHOO	25.6916	43.6916	19.6916	31.6916	25.6916	43.6916
22	Alger	Grand Island Twp 021030	MUNISING PUBLIC SCHOO	22.9146	40.9146	16.9146	28.9146	22.9146	40.9146
23	Alger	Limestone Twp 021040	SUPERIOR CENTRAL SCH	24.7417	42.7417	18.7417	30.7417	24.7417	42.7417
24	Alger	Mathias Twp 021050	SUPERIOR CENTRAL SCH	27.5062	45.5062	21.5062	33.5062	27.5062	45.5062
25	Alger	Munising Twp 021060	MUNISING PUBLIC SCHOO	23.109	41.109	17.109	29.109	23.109	41.109
26	Alger	Onota Twp 021070	AUTRAIN-ONOTA PUBLIC	22.5699	40.5699	16.5699	28.5699	22.5699	40.5699
27	Alger	Rock River Twp 021080	SUPERIOR CENTRAL SCH	25.71	43.71	19.71	31.71	25.71	43.71
28	Alger	Rock River Twp 021080	VILLAGE OF CHATHAM SUPERIOR CENTRAL SCH	29.652	47.652	23.652	35.652	29.652	47.652
29	Alger	Munising City 022010	MUNISING PUBLIC SCHOO	38.7135	56.7135	32.7135	44.7135	38.7135	56.7135

Michael Keller
 Accumatch
 20190726_MilageRates
 July 30, 2019