

IMPORTED LIBRARY'S

```
Fetching package metadata .....
Solving package specifications: .

Package plan for installation in environment /opt/conda/envs/DSX-Python35:

The following NEW packages will be INSTALLED:

    geographiclib: 1.49-py_0    conda-forge
    geopy:          1.17.0-py_0  conda-forge

geographiclib- 100% [#####] Time: 0:00:00 22.59 MB/s
geopy-1.17.0-p 100% [#####] Time: 0:00:00 32.24 MB/s
Fetching package metadata .....
Solving package specifications: .

Package plan for installation in environment /opt/conda/envs/DSX-Python35:

The following NEW packages will be INSTALLED:

    altair:   2.2.2-py35_1  conda-forge
    branca:   0.3.1-py_0    conda-forge
    folium:   0.5.0-py_0    conda-forge
    vincent:  0.4.4-py_1    conda-forge

altair-2.2.2-p 100% [#####] Time: 0:00:00 55.23 MB/s
branca-0.3.1-p 100% [#####] Time: 0:00:00 33.23 MB/s
vincent-0.4.4-p 100% [#####] Time: 0:00:00 36.74 MB/s
folium-0.5.0-p 100% [#####] Time: 0:00:00 42.95 MB/s
Libraries imported.
```

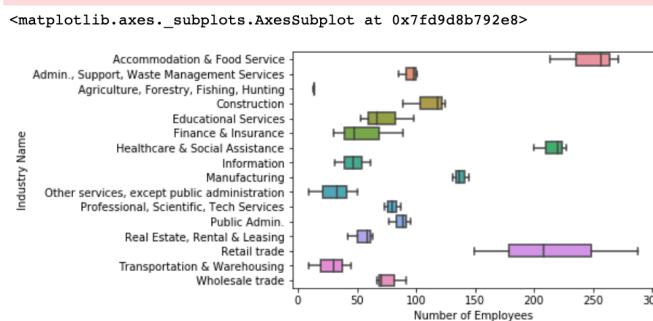
CODE | DATA VISUALIZATION

Collecting/Data Wrangling for the key areas of Economic, Diversity, Health & Safety, Education, and Living in the City of Keego Harbor, MI.

Economic

	Year	Industry Name	Location	Number of Employees
0	2014	Accommodation & Food Service	Keego Harbor	271
1	2014	Admin., Support, Waste Management Services	Keego Harbor	98
2	2014	Agriculture, Forestry, Fishing, Hunting	Keego Harbor	14
3	2014	Construction	Keego Harbor	89
4	2014	Educational Services	Keego Harbor	53

```
/opt/conda/envs/DSX-Python35/lib/python3.5/site-packages/seaborn/categorical.py:462: FutureWarning: remove_na is deprecated and is a private function. Do not use.
  box_data = remove_na(group_data)
```



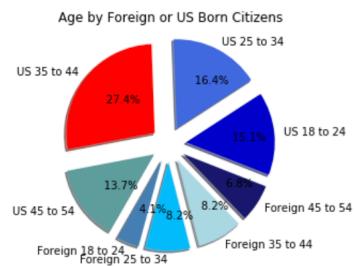
Retail and Accommodations are the highest industrial skill set for residents of Keego Harbor, MI.

Diversity

IV.

Diversity

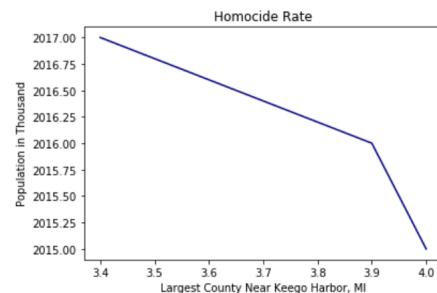
	Year	Foreign 18 to 24	Foreign 25 to 34	Foreign 35 to 44	Foreign 45 to 54	US 18 to 24	US 25 to 34	US 35 to 44	US 45 to 54
0	2013	59	124	88	65	110	417	394	301
1	2014	68	86	78	83	138	407	354	411
2	2015	52	82	46	61	172	431	370	408
3	2016	49	83	107	78	173	393	382	380



The US and Foreign-born workers meet or exceed the most productive working age of 37 for agriculture farm employees

Health & Safety

	Year	Location	Homicide Rate
0	2015	Oakland County, MI	4.0
1	2016	Oakland County, MI	3.9
2	2017	Oakland County, MI	3.4

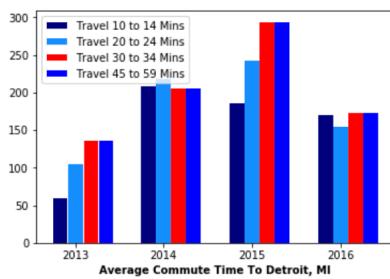


There is a consistent drop in the homicide rate in the largest county near Keego Harbor, MI between 2015 - 2017.

Education (Irrelevant Data)

Living

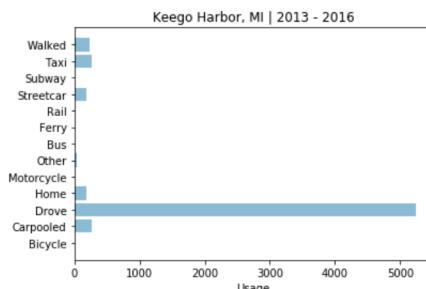
	Year	Location	Travel 10 to 14 Mins	Travel 20 to 24 Mins	Travel 30 to 34 Mins	Travel 45 to 59 Mins
0	2013	United States	19150700	19796400	18220900	10154500
1	2013	Keego Harbor	61	208	185	170
2	2014	United States	19118200	19975600	18463800	10409200
3	2014	Keego Harbor	106	219	243	155
4	2015	United States	19178600	20210800	18783100	10746800



On average, a commuters travel time to Detroit MI is between 30 to 34 minutes.

	Year	Location	Bicycle	Carpooled	Drove	Home	Motorcycle	Other	Bus	Ferry	Rail	Streetcar	Subway	Taxi	Walked	Workers	Unnamed: 16
0	2013	Keego Harbor	0	72	1139	32	0	11	0	0	0	0	0	0	51	1305	NaN
1	2014	Keego Harbor	0	74	1226	38	0	8	0	0	0	0	0	0	68	1414	NaN
2	2015	Keego Harbor	0	52	1388	38	0	10	0	0	0	0	0	0	63	1551	NaN
3	2016	Keego Harbor	0	69	1480	75	0	8	0	0	0	0	0	0	48	1680	NaN

(#2) Living



Residents of Keego Harbor primary form of transportation is driving a motor vehicle.

	Zip Codes	City	County	Latitude	Longitude
0	48320	Keego Harbor	Oakland, MI	42.610918	-83.335967
1	48320	Sylvan Lake	Oakland, MI	42.611400	83.328500

FOURSQUARE API SEARCH in KEEGO HARBOR and DETROIT MI

KEEGO HARBOR MICHIGAN

Your credentials:
CLIENT_ID: MBDTMTD5HXHXSW12HGPK1I210GAFCVB5MCAZVVUJUA5EGVQY
CLIENT_SECRET: M2NUDVNY1MM42SYHHPLAVATAWN3OAFSZVEATFNORKXJWSOZ

```
/opt/conda/envs/DSX-Python35/lib/python3.5/site-packages/geopy/geocoders/osm.py:143: UserWarning: Using Nominatim with the default "geopy/1.17.0" `user_agent` is strongly discouraged, as it violates Nominatim's TOS https://operations.osmfoundation.org/policies/nominatim/ and may possibly cause 403 and 429 HTTP errors. Please specify a custom `user_agent` with `Nominatim(user_agent="my-application")` or by overriding the default `user_agent`: `geopy.geocoders.options.default_user_agent = "my-application"`. In geopy 2.0 this will become an exception.
UserWarning
```

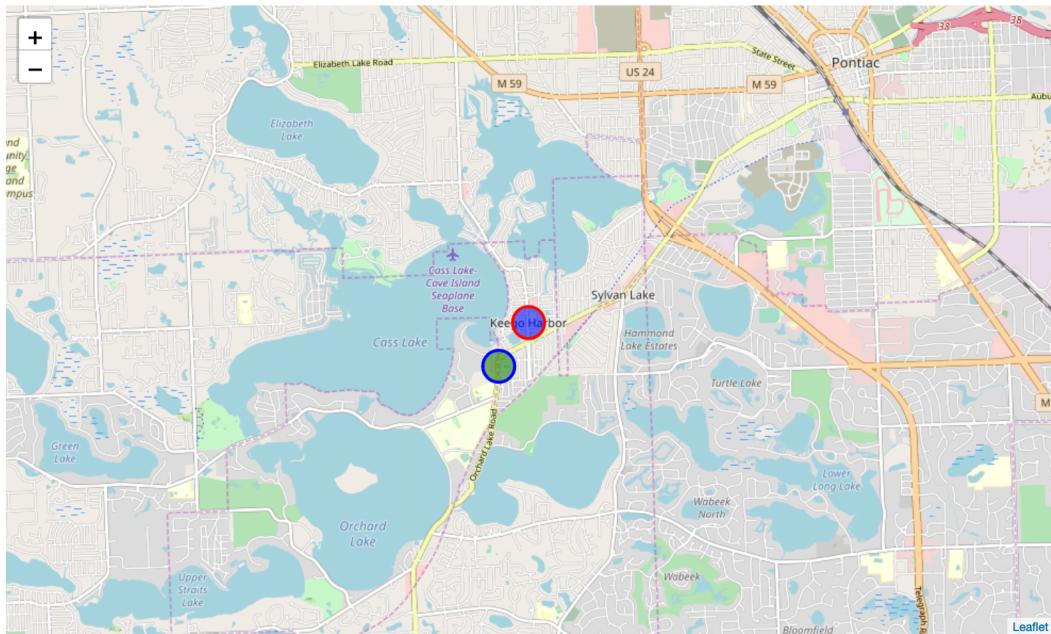
The geographical coordinate of Keego Harbor, MI are 42.6080884, -83.3438248.

Steakhouse OK!

```
'https://api.foursquare.com/v2/venues/search?client_id=MBDTMTD5HXHKS12HGPK1I210GAFCVB5MCAZVVUJUA5EGVQY&client_secret=MZNUDVN1MM42SYHHFPLAVATAWN3OAFS2VEATFNORKXJWSOZ&ll=42.608084,-83.3438248&v=20181206&query=Steakhouse&radius=1000&limit=30'

{'meta': {'code': 200, 'requestId': '5c0acebf4clf671924a87aa3'},  
 'response': {'venues': [{('categories': [{('icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/steakhouse  
-','  
 'suffix': '.png'}},  
 'id': '4bf58dd8d48988d1cc941735',  
 'name': 'Steakhouse',  
 'pluralName': 'Steakhouses',  
 'primary': True,  
 'shortName': 'Steakhouse'}]},  
 'hasPerk': False,  
 'id': '4b79d7c5f964a520ae152fe3',  
 'location': {'address': '3251 Orchard Lake Rd',  
 'cc': 'US',  
 'city': 'Keego Harbor',  
 'country': 'United States',  
 'distance': 695,  
 'formattedAddress': ['3251 Orchard Lake Rd',  
 'Keego Harbor, MI 48320',  
 'United States'],  
 'labeledLatLngs': [{('label': 'display',  
 'lat': 42.60290206351545,  
 'lng': -83.34856300830377)},  
 {('label': 'display',  
 'lat': 42.60290206351545,  
 'lng': -83.34856300830377},  
 {('label': 'display',  
 'lat': 42.60290206351545,  
 'lng': -83.34856300830377}],  
 'postalCode': '48320',  
 'state': 'MI',  
 'name': 'Harbor Steakhouse',  
 'referralId': 'v-1544212159'}]}}
```

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode
0	Harbor Steakhouse	Steakhouse	3251 Orchard Lake Rd	US	Keego Harbor	United States	695	[3251 Orchard Lake Rd, Keego Harbor, MI 48320,...]	[{"label": "display", "lat": 42.60290206351545...}	42.602902	-83.348563	48320



Blue Marker display Keego Harbor | Red Marker Show Top Trending Business in Keego Harbor.

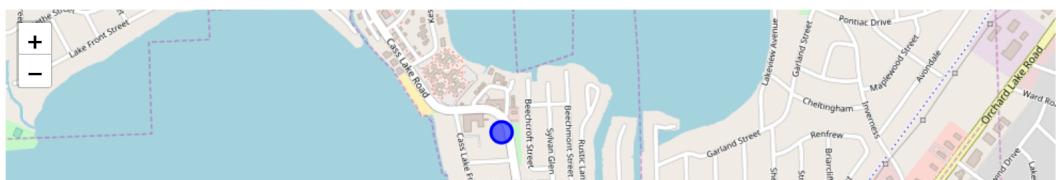
Search for Business near the Top Trending Business in the Keego Harbor.

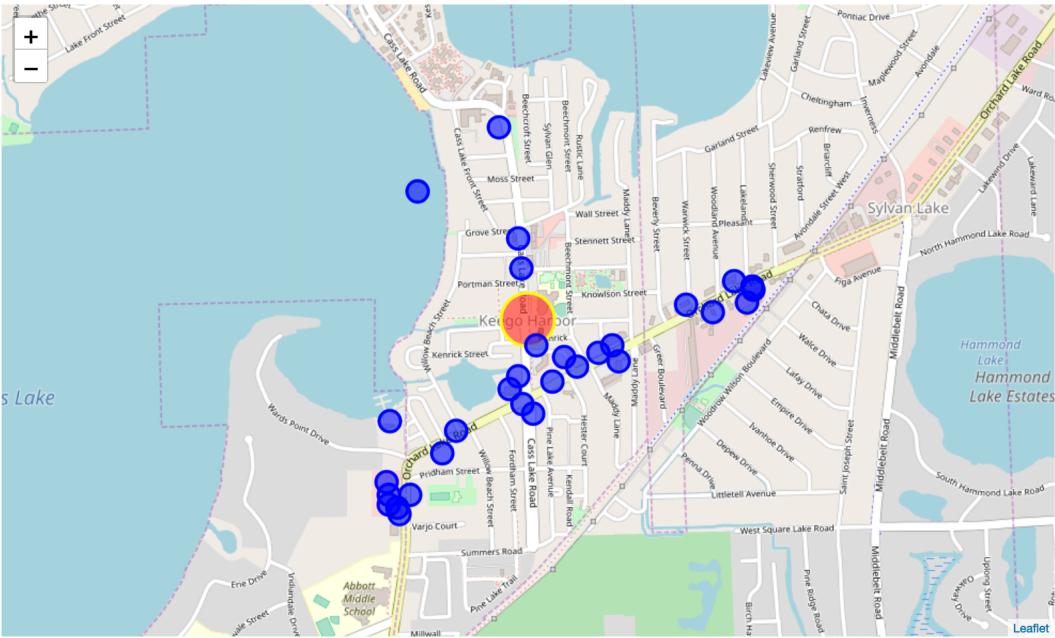
```
'https://api.foursquare.com/v2/venues/explore?client_id=MBDTMTD5HXHSW12HGPK1I210GAFCVB5MCZA7VUJUA5EGVQY&client_secret=MZNUDVNY1MM42SYHHFPLAVATAWN3OAFS2ZEVATFNORKXJWSOZ&ll=42.6080884,-83.3438248&v=20181206&radius=1000&limit=30'
```

```
'There are 30 around Harbor Steakhouse.'

{
  'reasons': {'count': 0,
    'items': [{ 'reasonName': 'globalInteractionReason',
      'summary': 'This spot is popular',
      'type': 'general'}]},
  'referralId': 'e-0-53a3fcc498e192ea6fa2c63-0',
  'venue': { 'categories': [{ 'icon': { 'prefix': 'https://ss3.4sqi.net/img/categories_v2/food/newamerican_',
      'suffix': '.png'},
      'id': '4bf58dd8d48988d157941735',
      'name': 'New American Restaurant',
      'pluralName': 'New American Restaurants',
      'primary': True,
      'shortName': 'New American'}],
    'id': '53a33fcc498e192ea6fa2c63',
    'location': { 'address': '1978 Cass Lake Rd',
      'cc': 'US',
      'city': 'Keego Harbor',
      'country': 'United States',
      'distance': 269,
      'formattedAddress': ['1978 Cass Lake Rd',
        'Keego Harbor, MI 48320',
        'United States'],
      'labeledLatLngs': [{ 'label': 'display',
          'lat': 42.6104889978377,
          'lng': -83.34421916487173}],
      'lat': 42.6104889978377,
      'lng': -83.34421916487173,
      'postalCode': '48320',
      'state': 'MI',
      'name': 'Yardbird',
      'photos': { 'count': 0, 'groups': []}}}
  }
}
```

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng
0	Yardbird	New American Restaurant	1978 Cass Lake Rd	US	Keego Harbor	United States	NaN	269	[1978 Cass Lake Rd, Keego Harbor, MI 48320, Un...]	[{"label": "display", "lat": 42.6104889978377,...}	42.610489	-83.344219
1	Gino's Pizzeria	Italian Restaurant	1999 Cass Lake Rd	US	Keego Harbor	United States	NaN	169	[1999 Cass Lake Rd, Keego Harbor, MI 48320, Un...]	[{"label": "display", "lat": 42.60960293885856...}	42.609603	-83.344068
2	Boskos Coffee & Kitchen	Coffee Shop	2850 Orchard Lake Rd	US	Keego Harbor	United States	Cass Lake	256	[2850 Orchard Lake Rd (Cass Lake), Keego Harbo...]	[{"label": "display", "lat": 42.60712193660984...}	42.607122	-83.340987
3	El Camino	Mexican Restaurant	NaN	US	Keego Harbor	United States	NaN	328	[Keego Harbor, MI 48320, United States]	[{"label": "display", "lat": 42.606876, "lng":...}	42.606876	-83.340164
4	The Lodge	Bar	2812 Orchard Lake Rd	US	Keego Harbor	United States	NaN	290	[2812 Orchard Lake Rd, Keego Harbor, MI 48320,...]	[{"label": "display", "lat": 42.6073443368133,...}	42.607344	-83.340425
5	Dairy Queen	Fast Food Restaurant	2886 Orchard Lake Rd	US	Keego Harbor	United States	Prynn	222	[2886 Orchard Lake Rd (Prynn), Keego Harbor, ...]	[{"label": "display", "lat": 42.60670405443324...}	42.606704	-83.341868
6	Ellen's Bakery & Cafe	Café	2495 Orchard Lake Rd	US	Sylvan Lake	United States	NaN	746	[2495 Orchard Lake Rd, Sylvan Lake, MI 48320, ...]	[{"label": "display", "lat": 42.60905967797983...}	42.609060	-83.334811
7	Harbor Steakhouse	Steakhouse	3251 Orchard Lake Rd	US	Keego Harbor	United States	NaN	695	[3251 Orchard Lake Rd, Keego Harbor, MI 48320,...]	[{"label": "display", "lat": 42.60290206351545...}	42.602902	-83.348563
8	Hungry Howie's Pizza	Pizza Place	2170 Cass Lake Rd	US	Keego Harbor	United States	NaN	189	[2170 Cass Lake Rd, Keego Harbor, MI 48320, Un...]	[{"label": "display", "lat": 42.606406, "lng":...}	42.606406	-83.344208
9	Salvation Army SATRUCK Thrift Store	Thrift / Vintage Store	3232 Orchard Lake Rd	US	Orchard Lake	United States	NaN	708	[3232 Orchard Lake Rd, Orchard Lake, MI 48324,...]	[{"label": "display", "lat": 42.6032874987744,...}	42.603287	-83.349494





There is limited to no competition for Cannabis retailers near the selected area

Detroit Michigan

Your credentials:
 CLIENT_ID: MBDTMTD5HXHXS12HGPK1I210GAFVB5MCAZVVUJUA5EGVQY
 CLIENT_SECRET: MZNUDVNY1MM42SYHHFPLAVATAWN3OAFSZVEATFNORKXJWSOZ

```
/opt/conda/envs/DSX-Python3.5/lib/python3.5/site-packages/geopy/geocoders/osm.py:143: UserWarning: Using Nominatim with the default "geopy/1.17.0" `user_agent` is strongly discouraged, as it violates Nominatim's ToS https://operations.osmfoundation.org/policies/nominatim/ and may possibly cause 403 and 429 HTTP errors. Please specify a custom `user_agent` with `Nominatim(user_agent="my-application")` or by overriding the default `user_agent`: `geopy.geocoders.options.default_user_agent = "my-application"`. In geopy 2.0 this will become an exception.
  UserWarning
```

The geographical coordinate of Detroit, Michigan are 42.3315509, -83.0466403.

Market OK!

```
'https://api.foursquare.com/v2/venues/search?client_id=MBDTMTD5HXHXS12HGPK1I210GAFVB5MCAZVVUJUA5EGVQY&client_secret=MZNUDVNY1MM42SYHHFPLAVATAWN3OAFSZVEATFNORKXJWSOZ&ll=42.3315509,-83.0466403&v=20181206&query=Market&radius=500&limit=30'
```

```
{'meta': {'code': 200, 'requestId': '5c0acee9ff594df19006260cb'},  

'response': {'venues': [{"categories": [{"icon": {"prefix": "https://ss3.4sqi.net/img/categories_v2/food/seafood_",
'suffix': '.png'},
'id': '4bf58dd8d48988d1ce941735',
'name': 'Seafood Restaurant',
'pluralName': 'Seafood Restaurants',
'primary': True,
'shortName': 'Seafood'}],
'delivery': {"id": "300162",
'provider': {"icon": {"name": '/delivery_provider_grubhub_20180129.png',
'prefix': 'https://fastly.4sqi.net/img/general/cap/',
'sizes': [40, 50]},
'name': 'grubhub'},
'url': 'https://www.grubhub.com/restaurant/detroit-seafood-market-1435-randolph-st-detroit/300162?affiliate=1131&utm_source=foursquare-affiliate-network&utm_medium=affiliate&utm_campaign=1131&utm_content=300162'},
'hasPerk': False,
'id': '4c522ad1048b1b8de07elb30',
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'cc': 'US',
'city': 'Detroit',
'country': 'United States',
'crossStreet': 'at Gratiot Ave.',
'distance': 479,
'formattedAddress': ['1435 Randolph St (at Gratiot Ave.)',
'Detroit, MI 48226',
'United States'],
'labeledLatLngs': [{"label": 'display',
'lat': 42.33581869155181,
'lng': -83.04582417800561}],
```

Trust Beta...										
6	Marketplace @ Compuware	Food Court	NaN	US	Detroit	United States	NaN	41	[Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33192527446864..., "lon": -82.99733333333333}
7	Eastern Market Farm Stand	Food & Drink Shop	355 Fisher Rd	US	Detroit	United States	NaN	268	[355 Fisher Rd, Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33395038143229..., "lon": -82.99733333333333}
8	Marketing Associates	Office	777 Woodward Ave	US	Detroit	United States	Woodward & Michigan	62	[777 Woodward Ave (Woodward & Michigan), Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33147662913042..., "lon": -82.99733333333333}
9	Detroit Seafood Market	Seafood Restaurant	1435 Randolph St	US	Detroit	United States	NaN	483	[1435 Randolph St, Detroit, MI 48226, United States]	{"label": "display", "lat": 42.335861, "lon": -82.99733333333333}
10	Detroit Fish Market	Food	1435 Randolph St	US	Detroit	United States	NaN	479	[1435 Randolph St, Detroit, MI 48226, United States]	{"label": "display", "lat": 42.335806, "lon": -82.99733333333333}
11	wally's market	Convenience Store	NaN	US	Detroit	United States	NaN	639	[Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33321950730262..., "lon": -82.99733333333333}
12	Marketing1on1 Internet Marketing & SEO	Internet Cafe	1200 Saint Antoine St	US	Detroit	United States	NaN	576	[1200 Saint Antoine St, Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33643715613108..., "lon": -82.99733333333333}
13	CDK Digital Marketing	Advertising Agency	500 Woodward Ave Ste 2900	US	Detroit	United States	Learned St	207	[500 Woodward Ave Ste 2900 (Learned St), Detroit, MI 48226, United States]	{"label": "display", "lat": 42.33002658500465..., "lon": -82.99733333333333}
14	Bankable Marketing Strategies	Building	1420 Washington Blvd Fl 5	US	Detroit	United States	NaN	413	[1420 Washington Blvd Fl 5, Detroit, MI 48226, United States]	{"label": "display", "lat": 42.334064, "lon": -82.99733333333333}
15	MOT Marketing	Non-Profit	NaN	US	Detroit	United States	NaN	594	[Detroit, MI, United States]	{"label": "display", "lat": 42.33662012086032..., "lon": -82.99733333333333}



There is limited to no competition for Cannabis retailers near the selected area