

# Plot Bandwidths

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In [42]: %matplotlib inline
%config InlineBackend.figure_format='retina'
import pandas as pd
import numpy as np
import mgwr
import pickle
import matplotlib.pyplot as plt
from io import StringIO

In [83]: filename = '../bws_global_start.csv'

def plotBws(filename, title):
    with open(filename, 'r') as inf:
        lines = inf.readlines()
        soclines = [i.replace('Current iteration: ', '').replace('SOC: ', '') for i in lines]
        bwlines = [i.replace('Bandwidths: ', '') for i in lines[1::2]]

        soc = pd.read_csv(StringIO('\n'.join(soclines)), header=None)
        bw = pd.read_csv(StringIO('\n'.join(bwlines)), header=None)

        soc.columns = ['Iteration', 'SOC']
        bw.columns = [
            'const',
            'avg_commute_km',
            # Alternate specification of commute distance
            # 'pct_commute_less2km', 'pct_commute_2_10km', 'pct_commute_10_20km',
            'pctbachdeg',
            'pctnovehicle',
            # the original paper had the low-income cutoff at 20k but that's just really low
            'income0_35k',
            'income35_50k',
            # 'income50_100k', # removed due to multicollinearity
            'pcthhkids',
            'pct_w_cbd', # NB high correlation with bachelor's degree
            'pctmultifamily',
            'pctrent',
            'luentropy',
            'access60', # lower cutoff metric might be preferable, access30 and access45 are
```