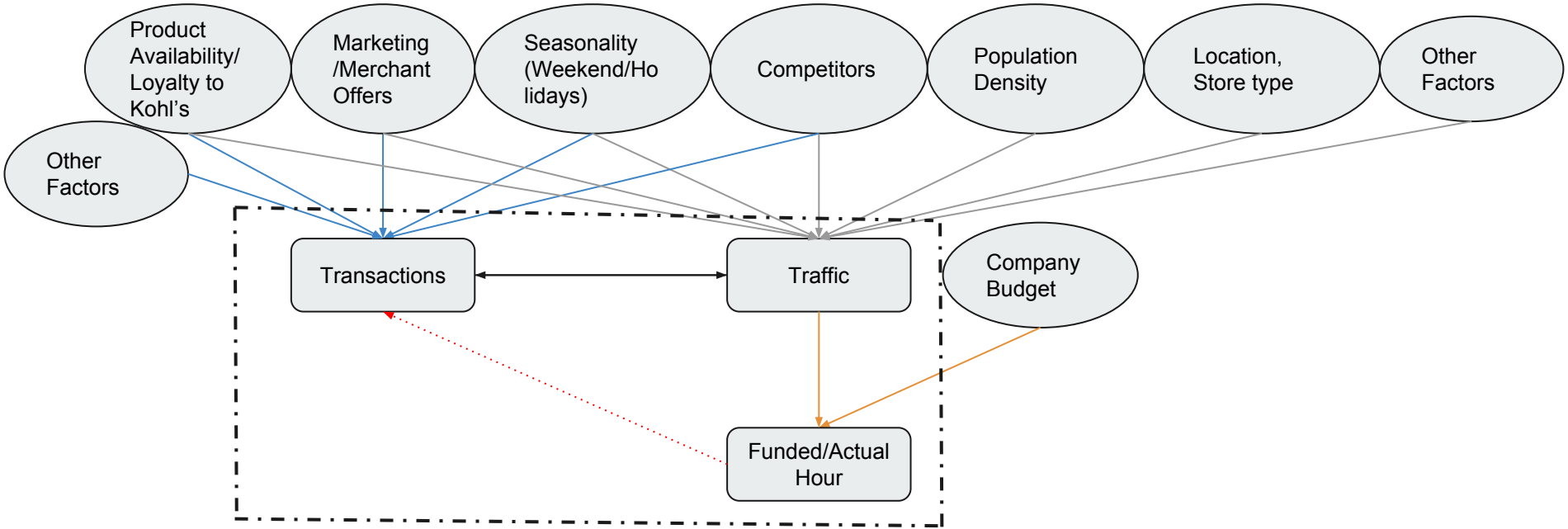
Store Funded Hours

Justin Tian

Objectives

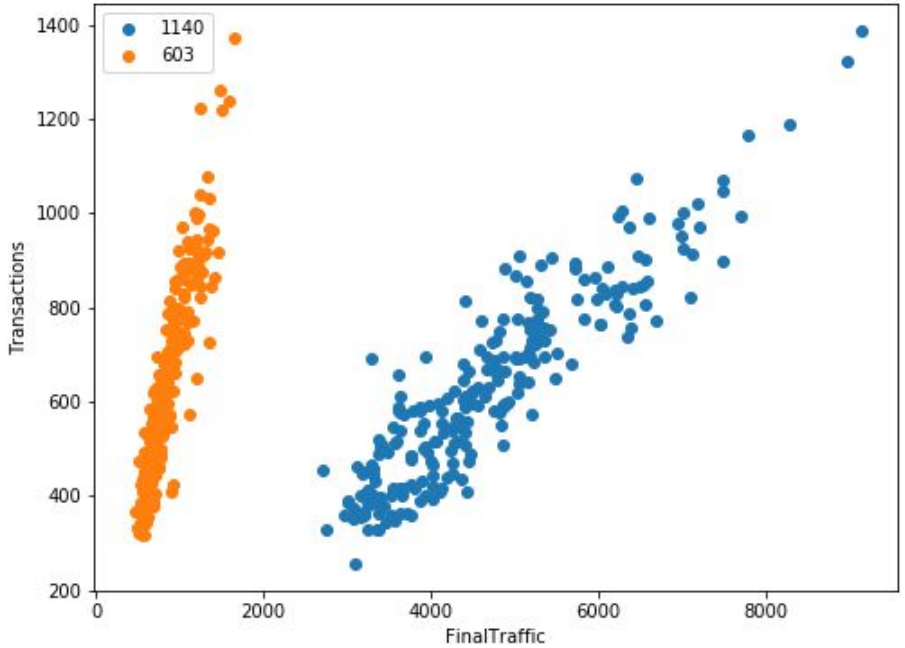
- Do clustering analysis for all the stores
- Identify stores to improve funded store hours
- Increase profit by improving funded store hours

Big Picture


Product Availability/ Loyalty to Kohl's
Marketing /Merchant Offers
Seasonality (Weekend/Ho lidays)
Competitors
Population Density
Location, Store type
Other Factors
Other Factors
Transactions
Traffic
Company Budget
Funded/Actual Hour

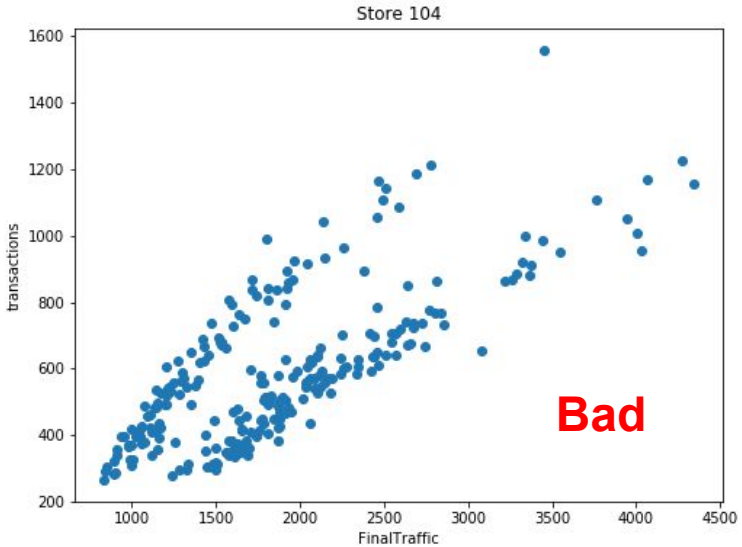
How To Measure Store Performance?

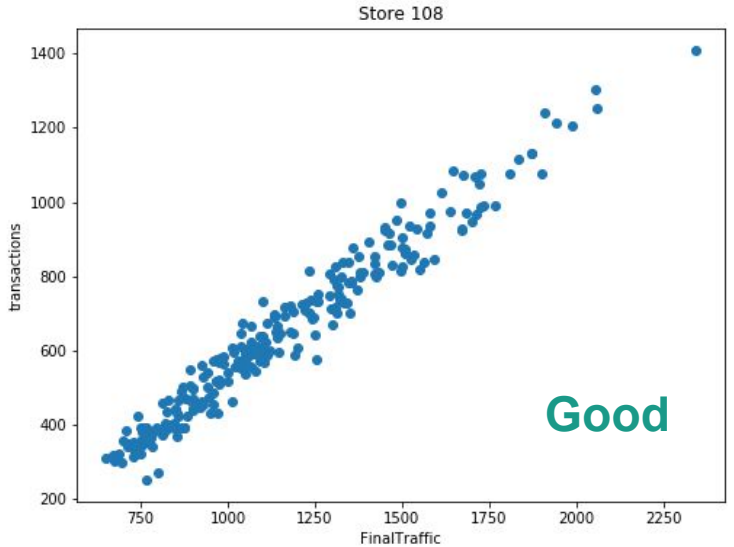
Stores Behave Differently



Good Stores vs Bad Stores

- Ideal: high traffic leads to high transactions

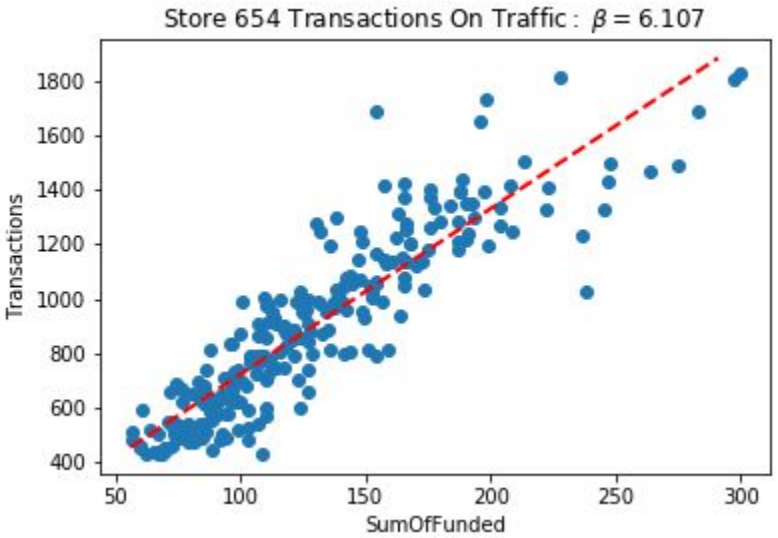


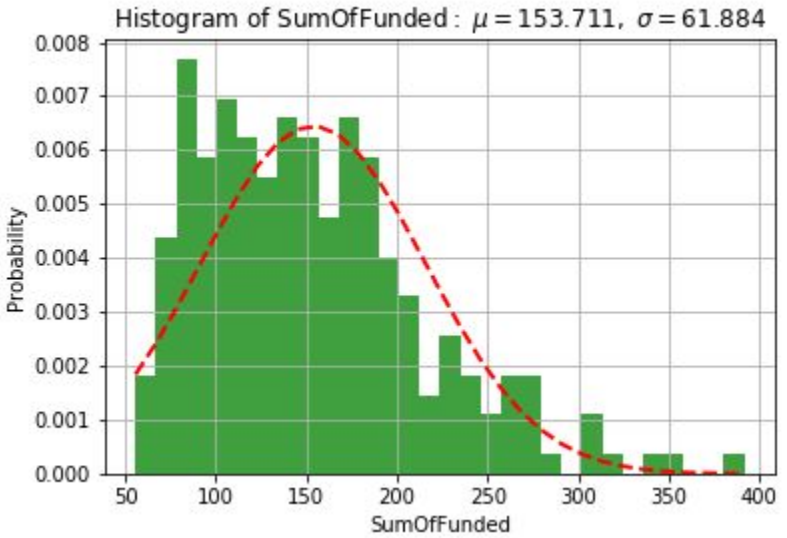


Quantifying Stores

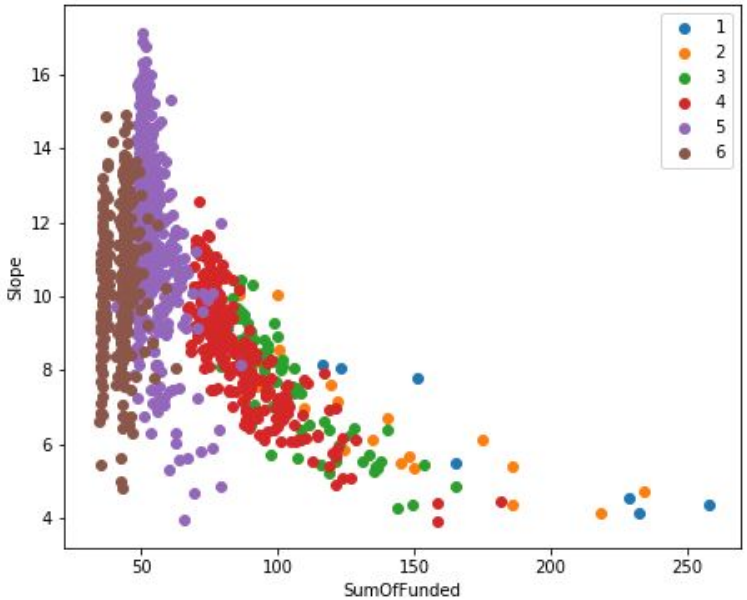
- (Slope, RSquared): Regression Analysis on **daily Transactions ~ daily SumOfFunded**
- SumOfFunded (mean, sigma): Gaussian fit for **daily SumOfFunded** for each of the stores

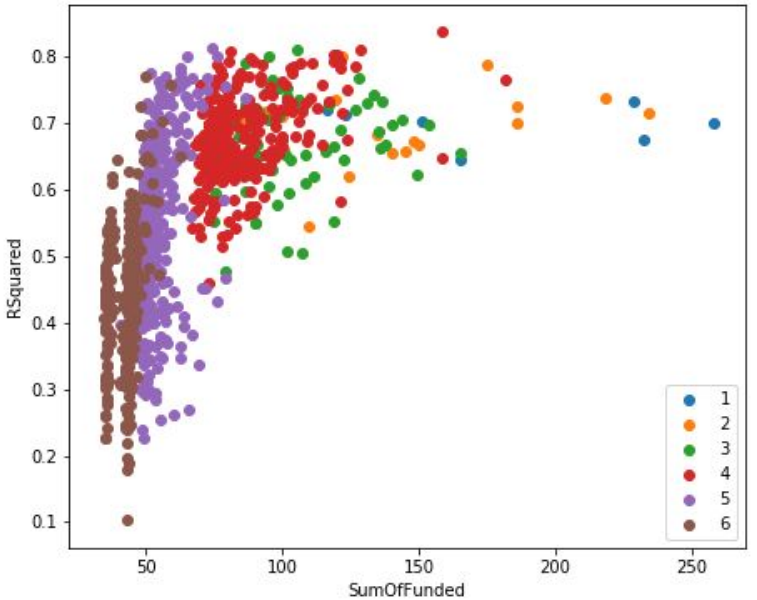
Quantifying Stores



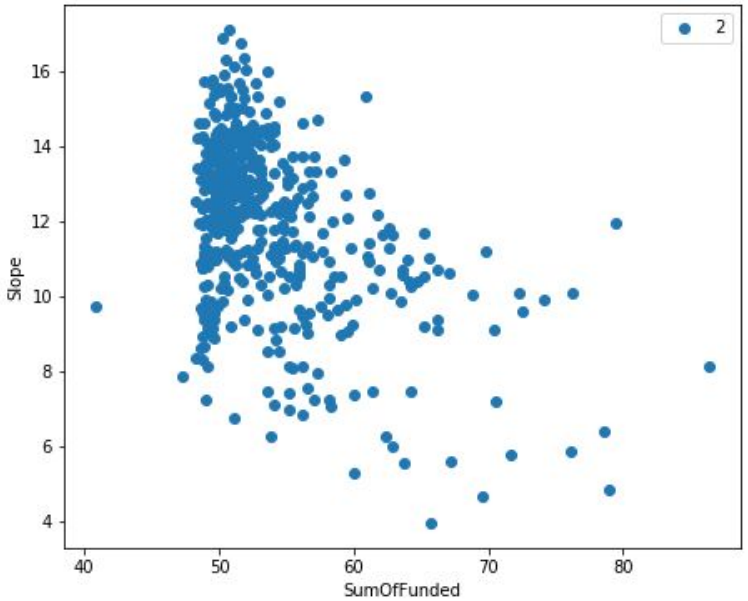


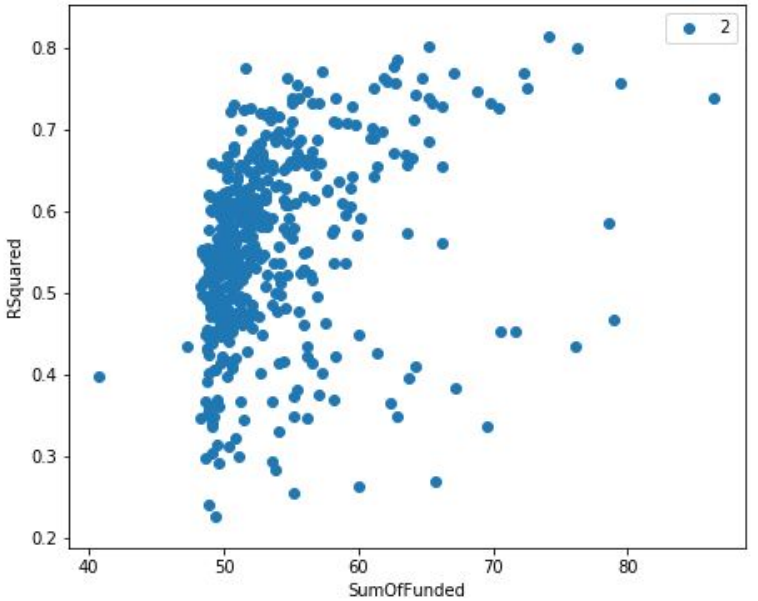
Levels On Slope And SumOfFunded



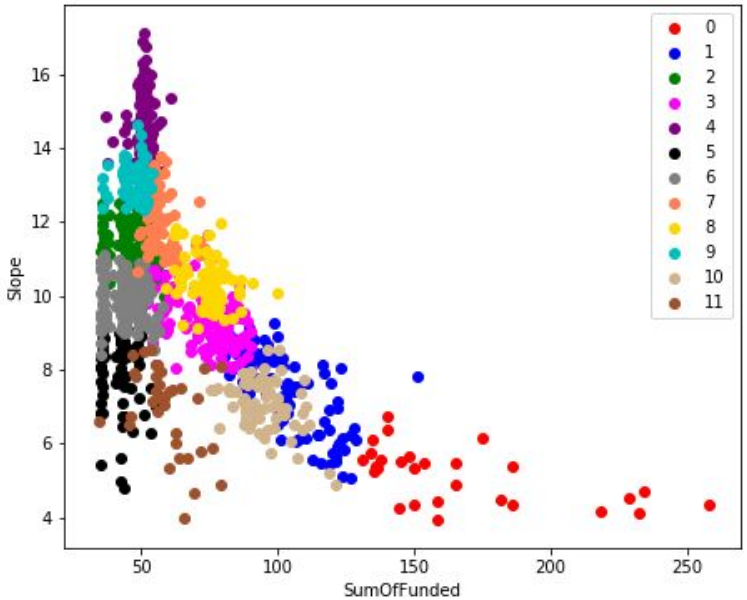


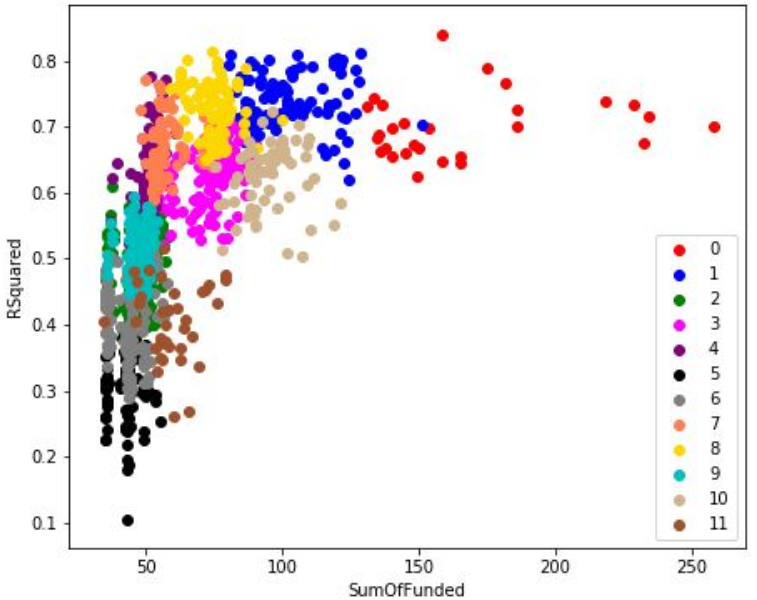
Level 2 On Slope And SumOfFunded





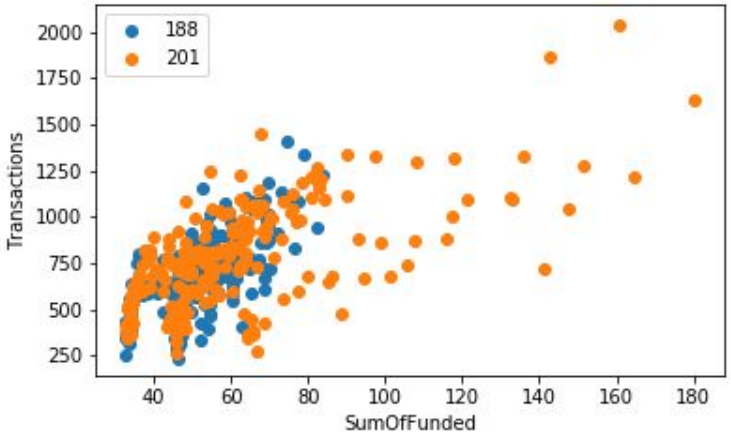
Clusters On Slope And SumOfFunded

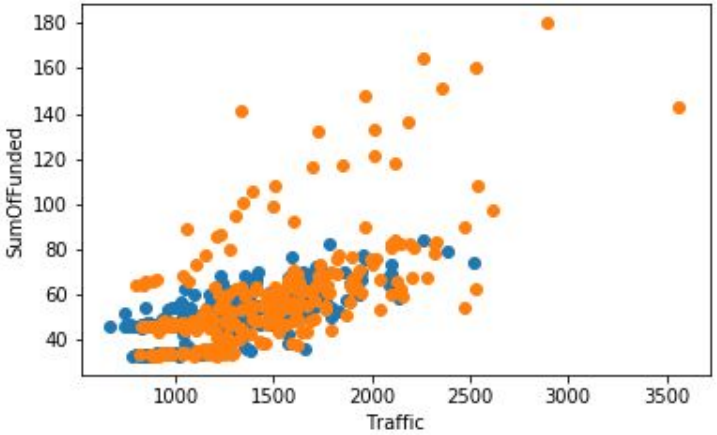




Over Funded Stores

Store lists: 75, 91, 111, 125, 159, 160, 184, 201, 234, 257, 289, 290, 299, 311, 340, 343, 358, 368, 399, 480, 500, 505, 537, 567, 596, 616, 620, 640, 641, 659, 674, 682, 687, 711, 728, 741, 755, 760, 985, 989, 1041, 1043, 1049, 1053, 1058, 1060, 1064, 1067, 1072, 1075, 1078, 1082, 1106, 1112, 1117, 1134, 1152, 1175, 1199, 1203, 1217, 1236, 1256, 1285, 1292, 1295, 1315, 1325, 1326, 1332, 1378, 1379, 1383, 1391, 1397, 1404, 1407, 1411, 1415, 1419, 1420, 1434, 1440, 1443, 1455, 1457, 1458, 1465, 1467, 1484, 1494, 1497, 1500, 1501, 1503, 1506, 1507, 1508, 1515, 1517, 1519





Conclusion

- Clustering successfully done on stores
- Over funded stores are identified