



The Chiwaukee Group

Wes Swager



The Chiwaukee Group



A startup real estate development firm looking to capitalize on growth and business development in the geographic area between Chicago, Illinois and Milwaukee, Wisconsin, through investment in new residential projects.



Business Development



amazon

 **RUST-OLEUM**

ULINE

Gordco
FOOD SERVICE

meijer

FOXCONN

Future Development



Marquette University Law School in Milwaukee has projected that the two metro areas will continue to merge into a single megaregion.

Connection





Business Problem

The Chiwaukee Group are specifically looking to target the counties located between Cook County, IL (Chicago) and Milwaukee County, WI:

- Lake County, IL
- Kenosha County, WI
- Racine County, WI

The Chiwaukee Group have requested a recommendation of the top-five zipcodes within which to invest.



Parameters

Risk

Evaluated through Coefficient of Variance, ratio of the standard deviation to the mean, with an upper-limit set at 50%

Historic Return on Investment

Areas with prove return on investment, with a threshold of top 25% across the existing data's timeframe

Expected Future Returns

Final recommendations will be based on future returns

Data



Monthly median housing sales values between 1997 and 2017 downloaded from Zillow, an American online real estate marketplace.

RegionID	RegionName	City	State	County	City	Zipcode	Date	Price	7	2017-08	2017-09	2017-10	2017-11		
0	84654	60657	Chicago	7	IL	Lake	Lake Zurich	60047	1996-04-01	283300.0	0	1007500	1007800	1009600	1013300
1	90668	75070	McKinney	17	IL	Lake	Lake Zurich	60047	1996-05-01	281700.0	0	310000	312500	314100	315000
2	91982	77494	Katy	27	IL	Lake	Lake Zurich	60047	1996-06-01	279300.0	0	320600	320200	320400	320800
3	84616	60614	Chicago	37	IL	Lake	Lake Zurich	60047	1996-07-01	276400.0	0	1287700	1287400	1291500	1296600
4	93144	79936	El Paso	47	IL	Lake	Lake Zurich	60047	1996-08-01	273700.0	0	119400	120000	120300	120300

Data



Working Zipcodes

60047 - Lake Zurich, IL

53142 - Kenosha, IL

53144 - Kenosha, IL

53158 - Pleasant Prairie, WI

53181 - Twin Lakes, WI

53108 - Caledonia, WI

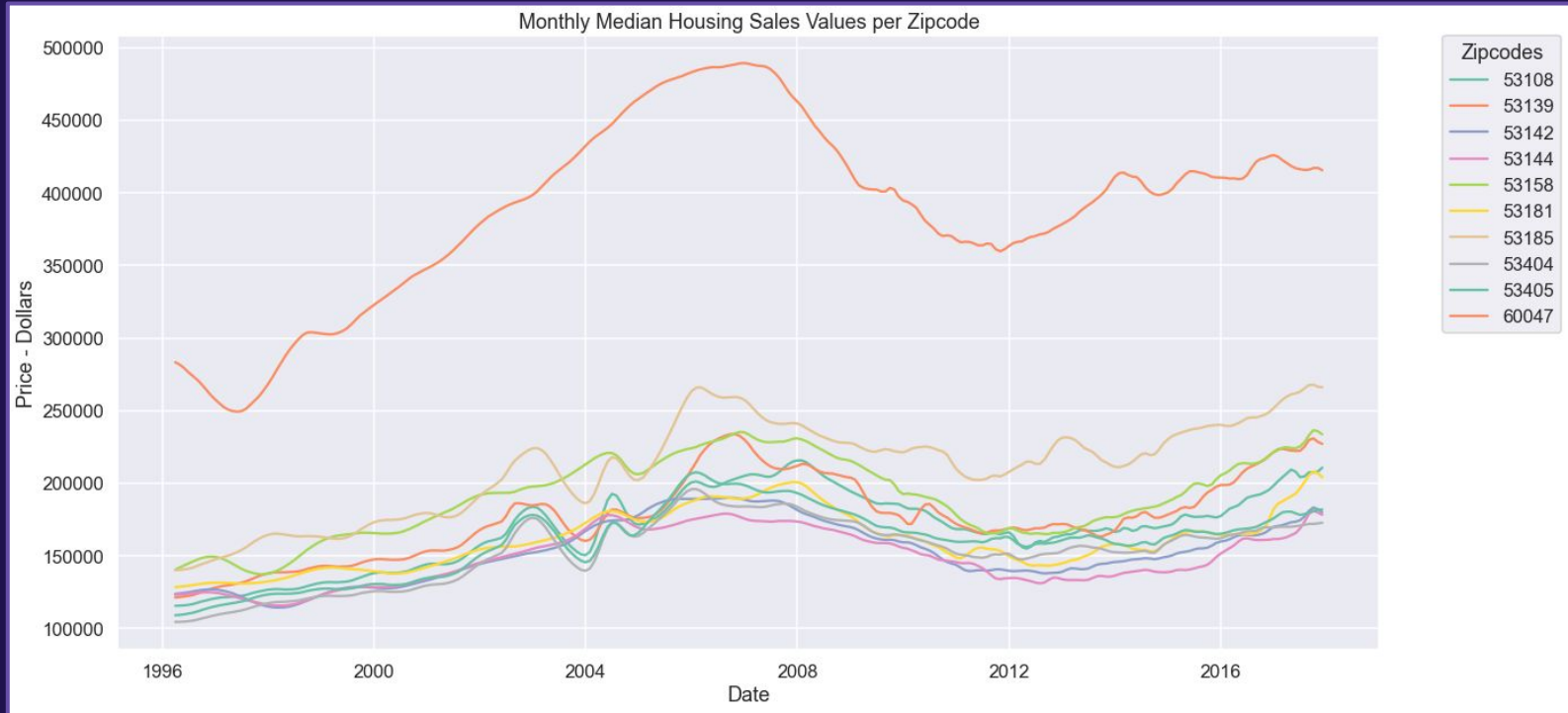
53139 - Eagle Lake, WI

53404 - Racine, WI

53405 - Racine, WI

53185 - Waterford, WI

Data



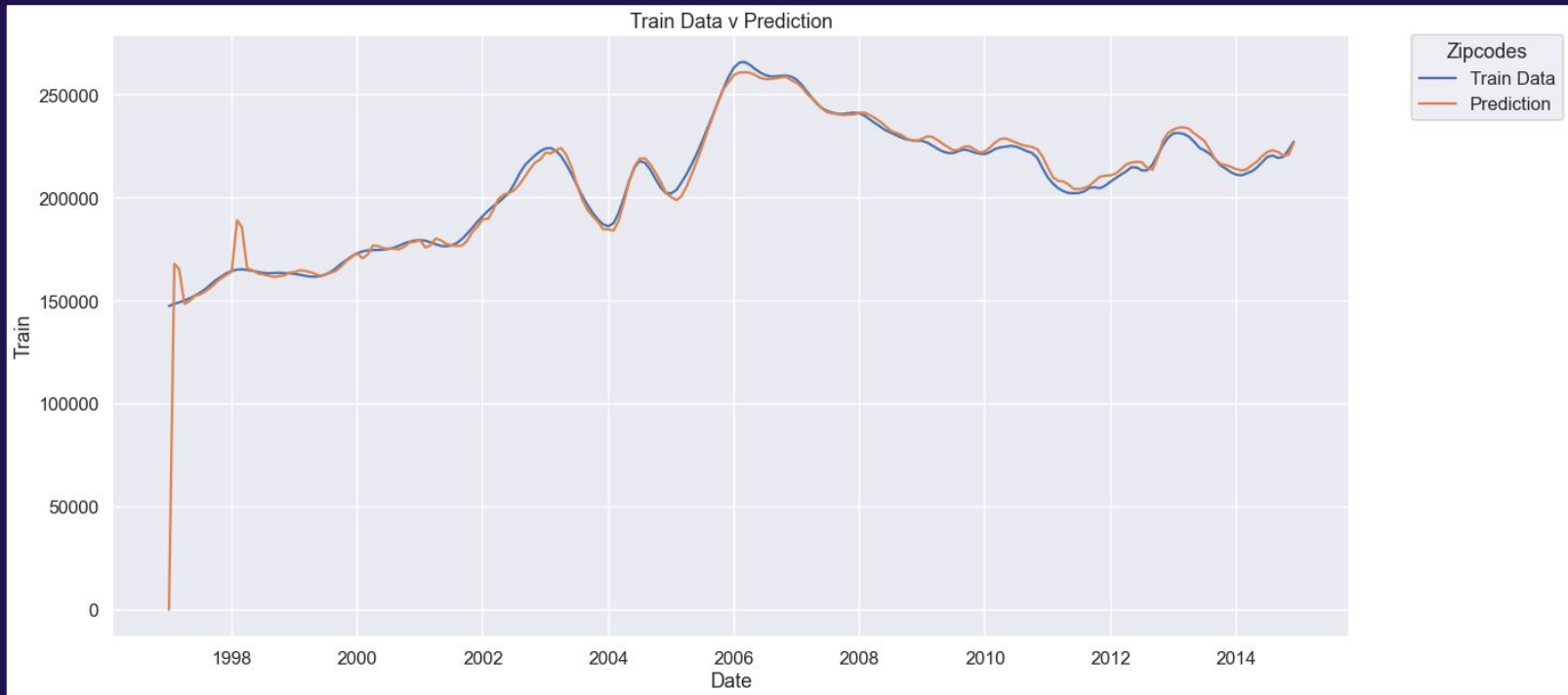
SARIMAX Model



Seasonal Auto Regressive Integrated Moving Average with Exogenous Factors

Time Series Model where each data point is associated with a time and the model predicts the next data based on statistical assessment of previous data.

Modeling



Top-Five Zipcodes



60047 - Waterford, WI
\$149,388.39

53144 - Kenosha, WI
\$39,968.79

53108 - Eagle Lake, WI
\$86,574.04

53142 - Twin Lakes, WI
\$38,127.55

53158 - Kenosha, WI
\$44,133.74



Recommendations

- Invest in the area 15-25 miles West of Interstate-94, North of the Illinois border
- Invest in the area within 5-miles of Interstate-94 in Kenosha County
- Discard interest in Illinois



Detailed Observations

Invest in in the area 15-25 miles West of I-94, North of the Illinois border

3 of the top-5 zipcodes, including the top-2, are located sequentially, 15-25 miles West of I-94, from the north-most border of Racine County south to the IL border

Based on projections that Chicago and Milwaukee will continue to merge into a singular megaregion, it was anticipated that the area directly between, East of I-94 to Lake Michigan, containing cities Kenosha, Racine, and Oak Creek would have been one of the areas on the rise



Detailed Observations

Follow-Up Questions

- Is the attraction to this area potentially associated with higher rated school system further separated from the cities?
- Are the higher forecasted returns potentially being driven by specific, smaller geographic areas, weighting the average for the zipcode?
- Is the growth of the area even connected with commuting access to Milwaukee and/or Chicago?



Detailed Observations

Invest in the area within 5 miles of I-94 in Kenosha County

The final 2 of the top-5 zipcodes were more predictably the area directly surrounding the major business developments along I-94 in Kenosha.

This area would also have the most direct access to I-94 and the Hiawatha Train service stop for commuter access



Detailed Observations

Follow-Up Questions

- What is type of competition exists for the development residential projects in this area?
- What types of residences are in-demand in this area?
- Are people moving to this area for distribution center and manufacturing jobs or for commuter access to Milwaukee and/or Chicago?



Detailed Observations

Discard interest in Illinois

All 5 of the top zipcodes are all located in Wisconsin, none in Lake County in IL



Detailed Observations

Follow-Up Questions

- How big a factor is the significant discrepancy between state tax-rates in Wisconsin compared to Illinois?



Next Steps

- Additional research can be performed regarding factors such as:
 - Tax Rates
 - Interest Rates
 - School District Ratings
 - Crime Rates
 - Median Household Incomes
- Additional modeling types can be utilized in the analysis of further data types



Next Steps

- Polling can be performed with current residents, with specific emphasis on people who moved to the area recently, to gather further data regarding personal driving factors potentially not captured by available statistics



Next Steps

- Further research can be performed narrowing the geographic range within the top zipcodes to attempt to discover more specifically which areas The Chiwaukee Group should look to invest in



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Questions?

