

Forecasting the Tarrant County Housing Market: Insights for Your DFW ► Investment Strategy

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Dallas - Ft. Worth Investment Potential

- ▶ Outlook for DFW Real Estate is Strong
- ▶ DFW Metro =
Dallas & Tarrant counties

NAR Identifies 10 Markets Expected to Outperform Over the Next Three to Five Years



December 11, 2019

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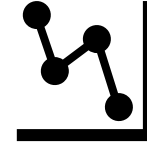
WASHINGTON (December 11, 2019) – The National Association of Realtors® identified 10 markets expected to outperform over the next three to five years. In alphabetical order, the markets are:

- Charleston, South Carolina
- Charlotte, North Carolina
- Colorado Springs, Colorado
- Columbus, Ohio
- **Dallas-Fort Worth, Texas**
- Fort Collins, Colorado
- Las Vegas, Nevada
- Ogden, Utah
- Raleigh-Durham-Chapel Hill, North Carolina
- Tampa-St. Petersburg, Florida

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(National Association of Realtors, Dec. 2019)

- ▶ 1) Fit a model using to historical 'training' data, capturing past patterns



- ▶ 2) Evaluate model quality by predicting known 'test' data
 - ▶ 'Test' data excluded from Step 1



- ▶ 3) Use model to Forecast future values



Time Series Modeling & Forecasting (In a Nutshell)

CHOOSING THE RIGHT AREA FOR INVESTMENT

‘BEST’ ZIP CODES:

- 1) Predictable
- 2) Good Return on Investment (ROI) Forecast
- 3) Lower Uncertainty in ROI Forecast

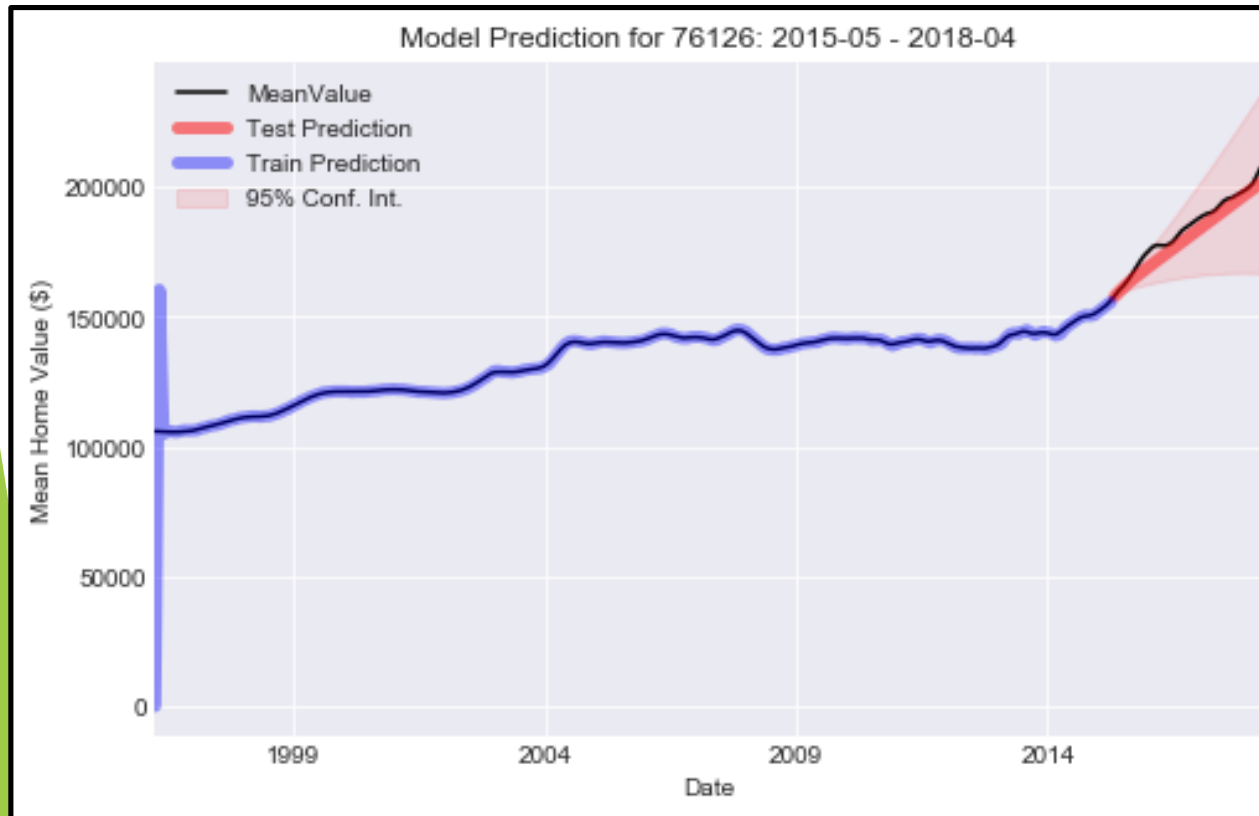
‘WORST’ ZIP CODES:

- 1) Unpredictable
- 2) Poor ROI Forecast
- 3) Higher Uncertainty in ROI Forecast

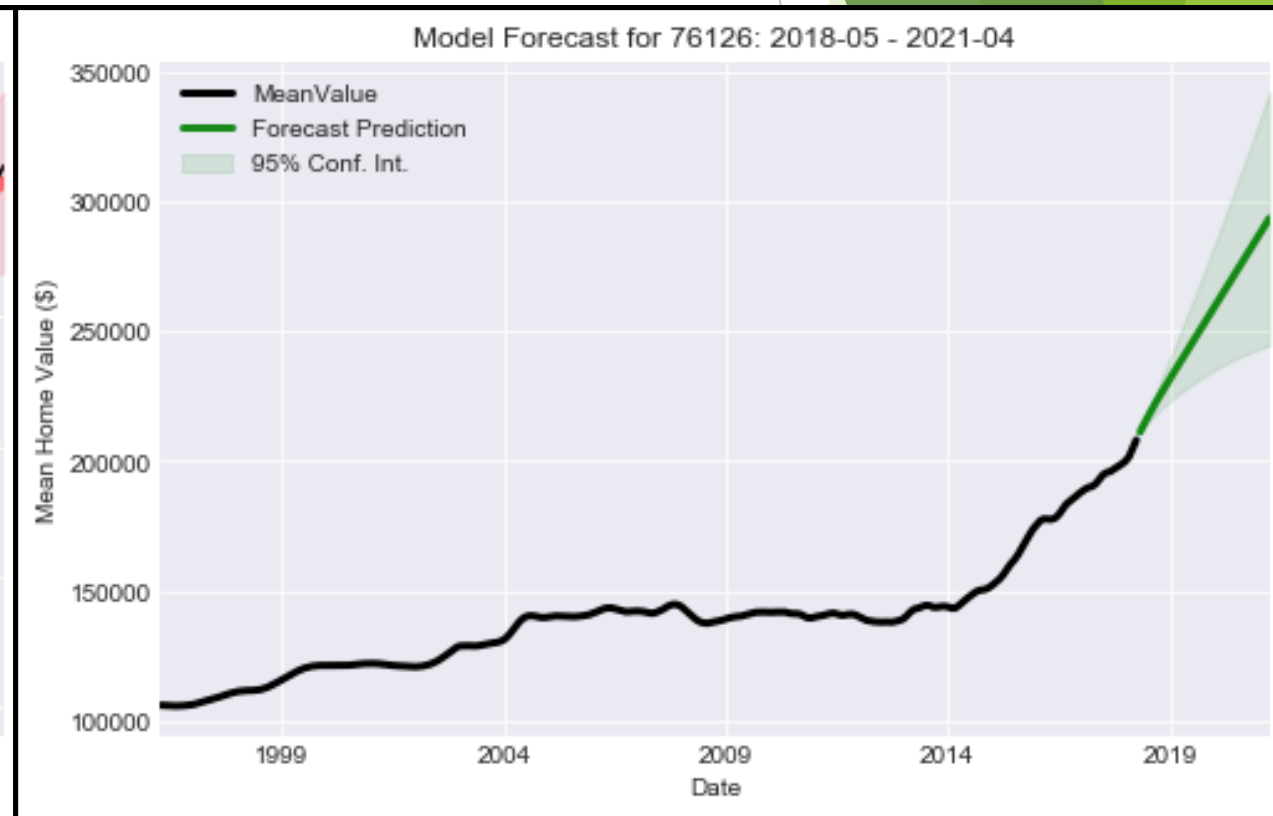
- These three features weighted equally to create a **ZIP RANK INDEX**

Example: 'Good' Zip Code - 76126

Zip Rank Index = 20.5



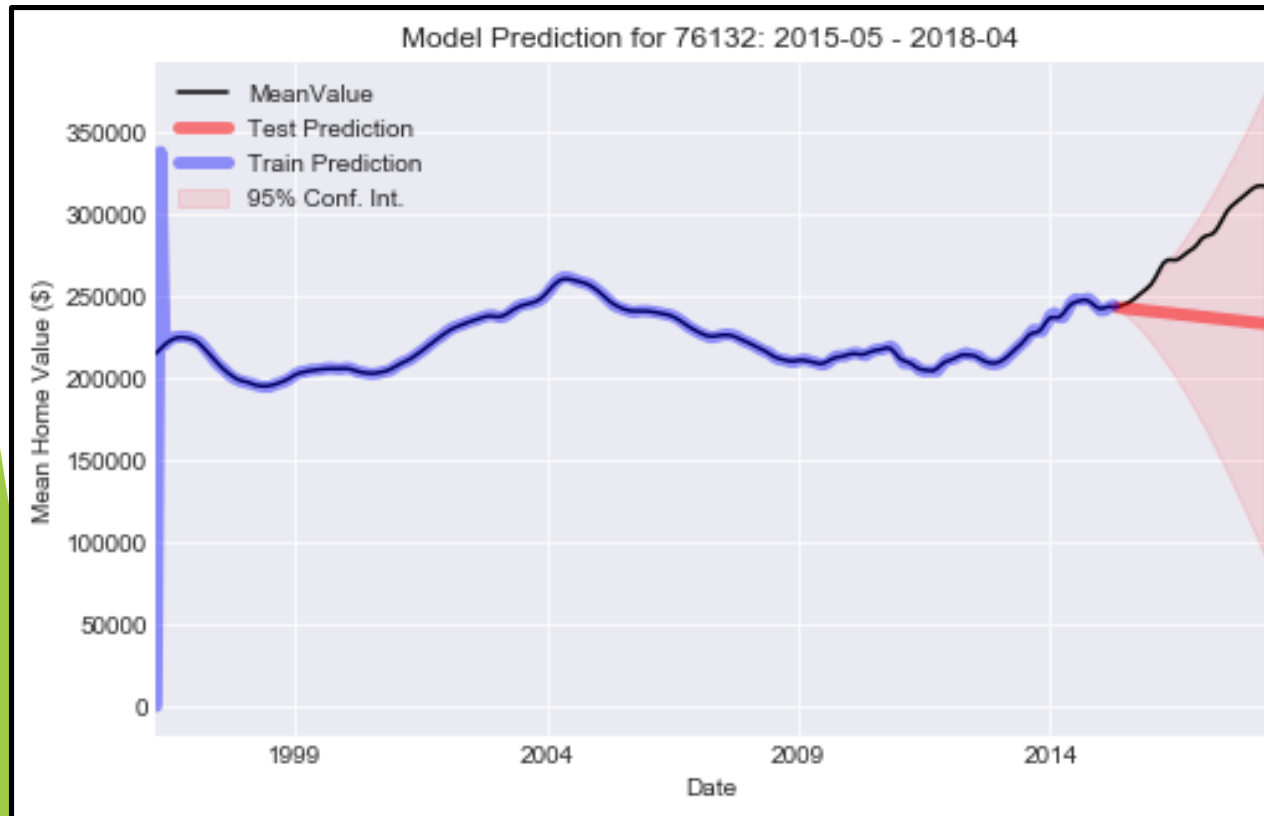
High Predictability



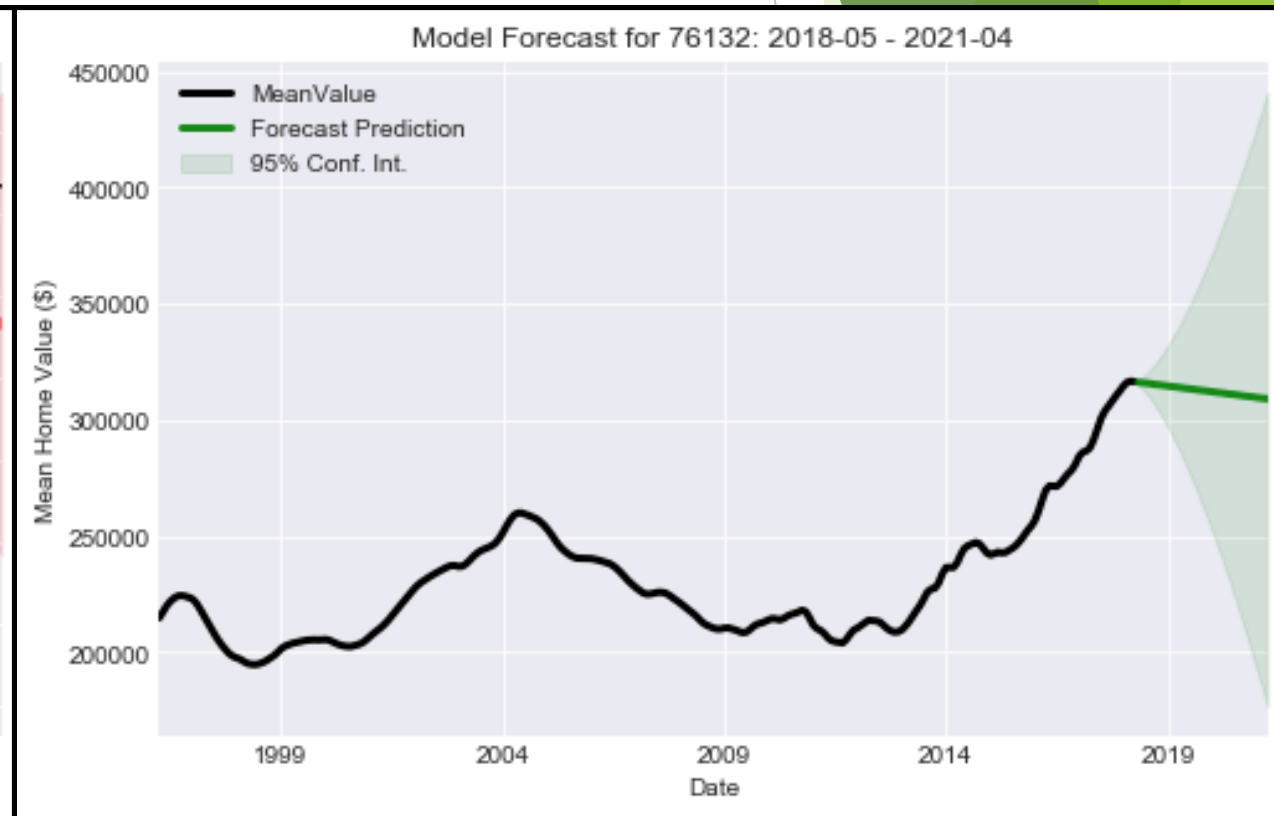
Good 3 Year Forecasted R.O.I.
Low Forecast Uncertainty

Example: 'Not-So-Good' Zip Code - 76132

Zip Rank Index = 150



Low Predictability



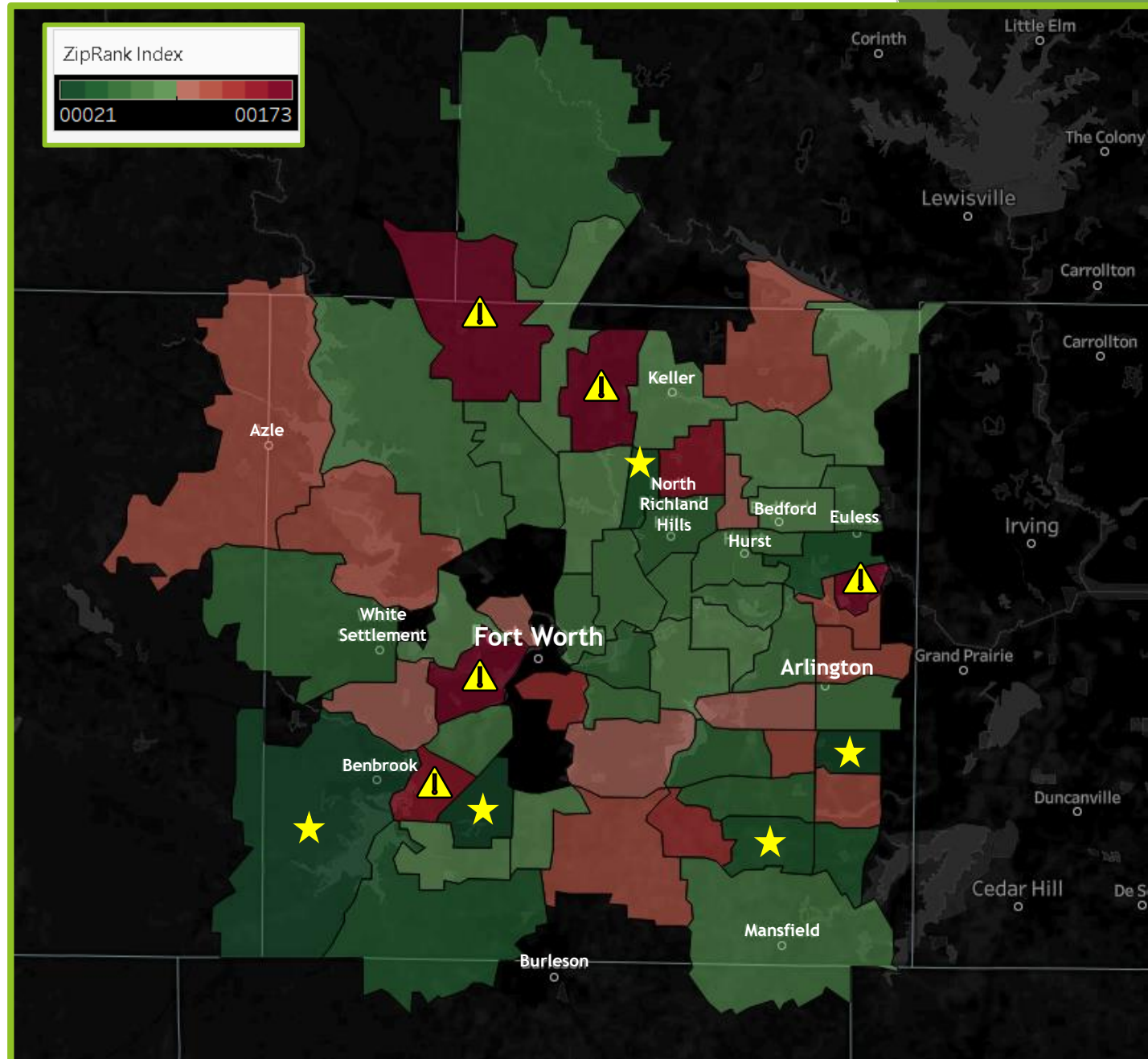
Poor 3-Year Forecasted R.O.I.
High Forecast Uncertainty

‘Best’ Zip Codes

- ★ 76126 - Benbrook
- ★ 76133 - SW Fort Worth
- ★ 76014 - E Arlington
- ★ 76001 - SW Arlington
- ★ 76148 - Watauga

‘Worst’ Zip Codes

- ⚠ 76132 - E Benbrook
- ⚠ 76005 - NE Arlington
- ⚠ 76052 - Haslet
- ⚠ 76244 - W Keller
- ⚠ 76017 - W Fort Worth



Recommendations for Housing Investment in Tarrant County

- ▶ Strongly consider the zip codes with predictable behavior, good forecasted R.O.I., and low forecast uncertainty
- ▶ Think twice about zip codes that are difficult to predict, have poor forecasted R.O.I., and high forecast uncertainty
- ▶ Time series models just one piece of the puzzle
 - ▶ Often useful - rarely exactly correct
 - ▶ Forecasts may be inaccurate if systems experience rapid/dramatic change
 - ▶ Economic boom/recession
 - ▶ Natural disasters
 - ▶ Government policies, etc.



Future Work

- ▶ Use additional data to try to improve time series predictions
 - ▶ Population growth / decline
 - ▶ Per capita income changes
 - ▶ Economic growth / decline
 - ▶ Demographics
- ▶ Assess 3-year forecasts made in this study when all data are available
 - ▶ ... how well did these forecasts hold up ?

The background features a dark blue-grey field on the left, transitioning into a series of overlapping, semi-transparent green triangles and polygons on the right. These shapes vary in shades from a vibrant lime green to a deep forest green. A thin, light-colored line runs diagonally across the lower right portion of the image.

Thank you!