



Light Touch Density's Effect on Tampa Bay, Florida

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Research Question

How, if at all, would implementations of Light Touch Density, impact rental prices in Tampa Bay, Florida?

Background

Families in the densely populated and expensive Tampa Bay Area are experiencing housing shortages due to population growth, outpacing the local supply. Local housing prices have increased by nearly 50% in the last 10 years¹.

The Light Touch Density (LTD) approach replaces old and dilapidated Single-Family Detached homes with infill conversions, or multi-unit structures such as duplexes or quadplexes. The American Enterprise Institute (AEI) projects LTD implementations in Tampa Bay can offer an approximately 20% increase in housing supply².



Figure 1. An infill conversion candidate⁴

Infill Conversion Calculation

According to AEI, infill conversions must meet the following guidelines to be economically feasible for developers:

1. Land share of the new units has to be between 20-60%.
2. New units have to be priced between 50-180% of the torn down unit.
3. New units have to be priced between 50-150% of median price per sq. ft. of the existing homes of the census tract.
4. Floor area ratio of new units cannot be greater than 14.0%.

Supply Added = Potential Infill Conversion Units – 1⁴

County	Increase in Housing Supply with LTD	Increase in Housing Supply without LTD (current trend)
Hillsborough	20%	16%
Pinellas	23%	2%

Figure 2: Housing Supply Projections.

Methods and Model

Yearly data for Hillsborough and Pinellas counties on population, HPI, housing units, unemployment rates, income, and rent prices are compiled. Two linear regressions are conducted in Python to predict rent over 10 years given:

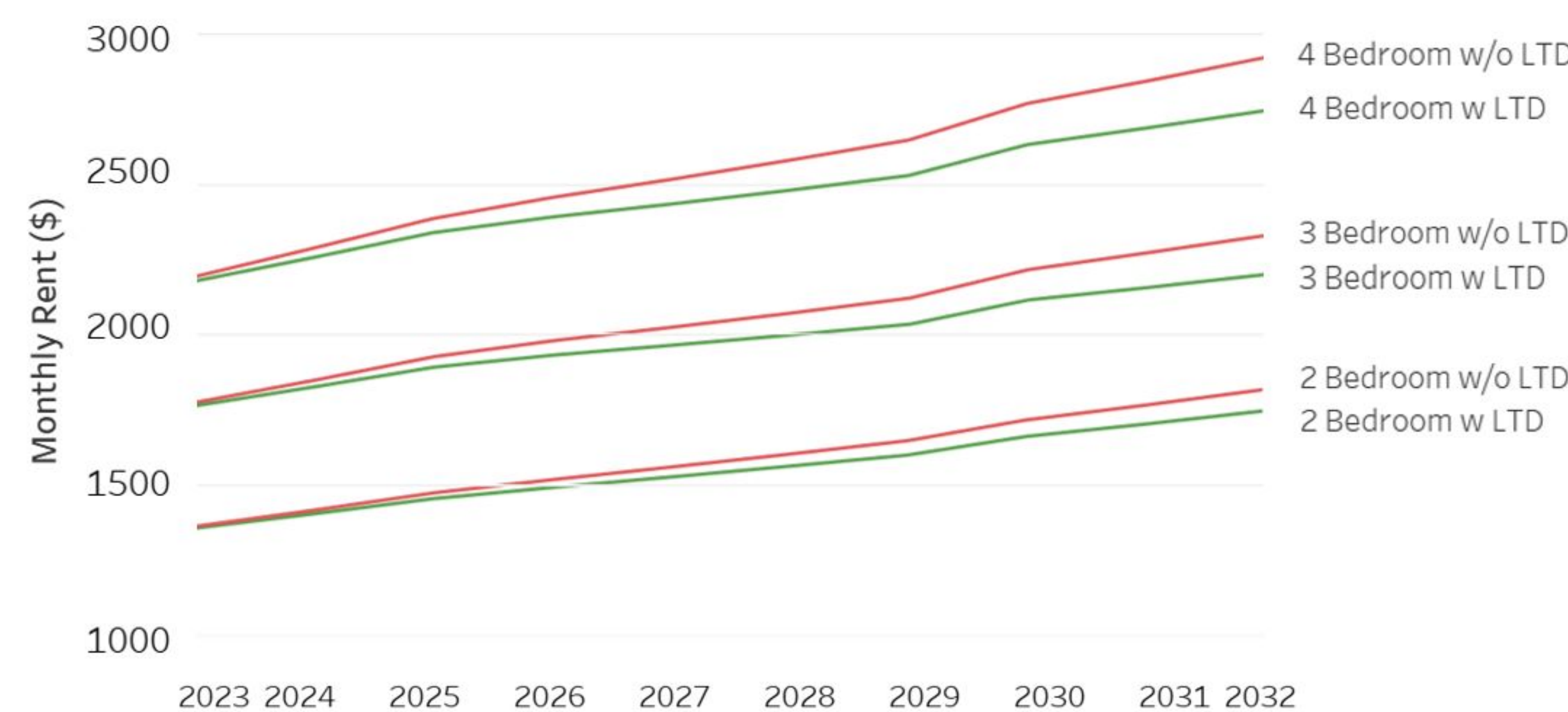
1. 20-23% increase in housing supply with LTD
2. 2-16% increase in housing supply without LTD

$$\text{Rent} = \beta_0 + \beta_1 \text{Units} + \beta_2 \text{Income} + \beta_3 \text{HPI} + \beta_4 \text{Population} + \beta_5 \text{Unemployment}$$

Preliminary Results

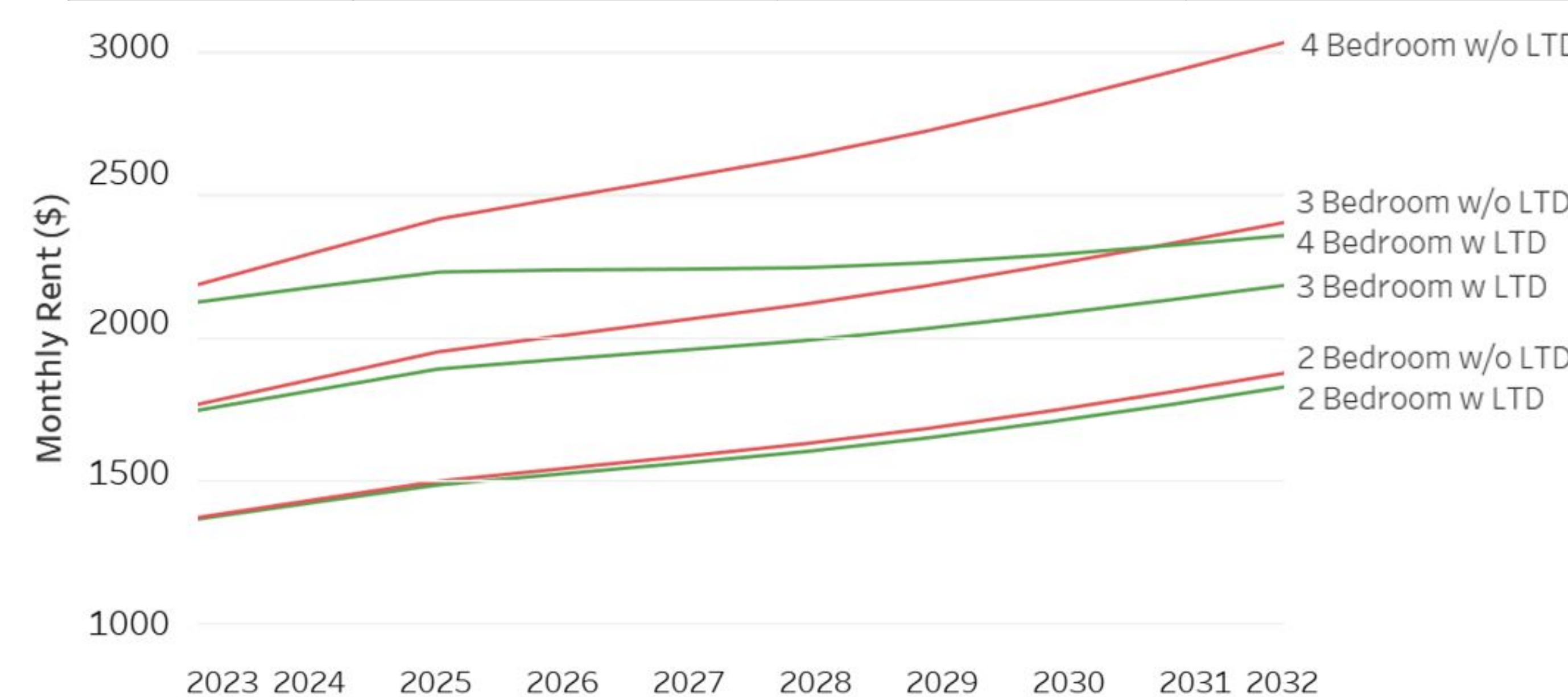
Hillsborough: Projected Monthly Rent Prices

	2 Bed w LTD	2 Bed w/o LTD	3 Bed w LTD	3 Bed w/o LTD	4 Bed w LTD	4 Bed w/o LTD
2032 Rent	\$1,748	\$1,819	\$2,203	\$2,333	\$2,745	\$2,922
Difference	\$71		\$130		\$177	



Pinellas: Projected Monthly Rent Prices

	2 Bed w LTD	2 Bed w/o LTD	3 Bed w LTD	3 Bed w/o LTD	4 Bed w LTD	4 Bed w/o LTD
2032 Rent	\$1,836	\$1,885	\$2,189	\$2,410	\$2,359	\$3,039
Difference	\$49		\$221		\$680	



Regression Model

Pinellas County Regression

	2 Bedroom	3 Bedroom	4 Bedroom
R-squared:	0.969	R-squared: 0.960	R-squared: 0.959
Adj. R-squared:	0.958	Adj. R-squared: 0.945	Adj. R-squared: 0.944
P-Value:	4.75e-10*	P-Value: 2.87e-09*	P-Value: 3.28e-09*

Hillsborough County Regression

	2 Bedroom	3 Bedroom	4 Bedroom
R-squared:	0.937	R-squared: 0.972	R-squared: 0.972
Adj. R-squared:	0.914	Adj. R-squared: 0.962	Adj. R-squared: 0.961
P-Value:	6.53e-10*	P-Value: 2.28e-09*	P-Value: 2.56e-09*

* Model has statistical significance at the 1% level

Policy Implications

- Depending on the unit size and location, LTD can lead to a roughly \$50-\$700 monthly, or \$600-\$8,400 yearly reduction in rent for Florida residents.
- It is recommended that Tampa Bay consider the implementation of LTD policies that focus on streamlining processes, zoning laws, and incentives for developers to build accessory dwelling units and infill conversions.
- AEI laid out a model bill, outlining effective LTD policies that can be used to design legislation.

Limitations and Future Research

- Since the data in this study is broken up by number of bedrooms and counties, more in-depth research should be conducted comprehensively throughout the state of Florida
- Future research should examine the potential impact of LTD on housing prices in specific neighborhoods.



Scan for References

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