

# Interpretation

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Interpretation and Understanding Outputs

**Notebook Outline:**

An example of hedonic house price modeling using MGWR - Section 1 - Section 2 - Section 3 - Section 4

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## 1 Global Model Results

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### 1.0.1 Global Regression Model Fit and Parameter Estimates

Two files are saved on your computer once you run the MGWR model - **MGWR\_session\_summary.txt** and **MGWR\_session\_results.csv**

## 2 MGWR Results - Model Fit

## 3 MGWR Results - Bandwidth Parameters

### 3.0.1 Total number of census tracts = 357

### 3.0.2 Visualizing bandwidths to understand scale

## 4 MGWR Results - Parameter Estimates

### 4.0.1 The new columns added to the results csv:

1. **ols\_residual** - Residuals from OLS model for every location point
2. **mgwr\_yhat** - yhat from MGWR for each location point
3. **mgwr\_residual** - Residuals from MGWR for every location point
4. **localR2** - Explained variation at each location point
5. **beta\_** - Columns starting with *beta* are parameter estimates for the covariates
6. **se\_** - Columns starting with *se* are standard errors for estimates for the covariates
7. **t\_** - Columns starting with *t* are t values for estimates for the covariates
8. **p\_** - Columns starting with *p* are p values for estimates for the covariates
9. **sumW\_** - Sum of weights for the covariates at each location

The **beta\_** columns need to be filtered to have only the significant parameter estimates. This filtering is done using the **t\_** value columns. The thresholds for t values are defined by the adjusted t values as shown below.

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