


Austin's Gentrification and Its Impact on Neighborhoods

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City of Austin



- 2nd fastest growing city by 2015 Census
- Grew by slightly more than 16 percent from 2010 to 2015 (now 1.9 million)
- Gentrification of old neighborhoods
- Technology hub



Data Sources

Zillow

Median Value - All Homes

Median Value Per SqFt - All Homes

Median Rent - All Homes

Median Rent Per SqFt - All Homes

Socrata Open Data API (SODA)

Residential/Commercial Water Consumption

Code Complaint Cases

Racial Profiling Citations/Arrests

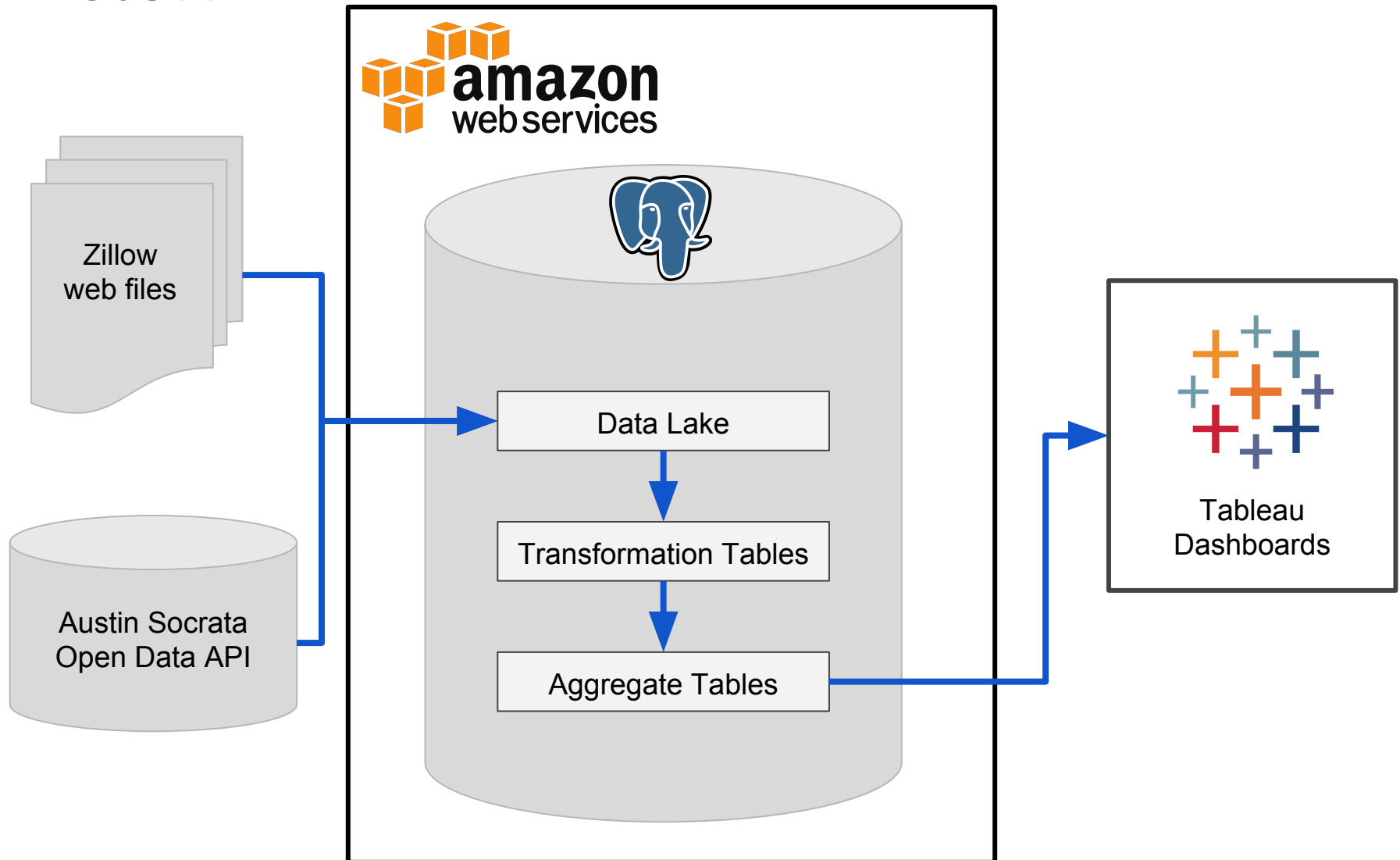
Service Alerts

Restaurant Inspection Scores

Residential Water Consumption

Pothole Repair

Process



Zip Code Location Conversion

```
UPDATE zip_code_map SET zip_code = 78753 WHERE row_number = 46992;  
ROW: ('700 DAWSON ROAD', 46993L)  
700 DAWSON ROAD,Austin,TX  
46993  
UPDATE zip_code_map SET zip_code = 78704 WHERE row_number = 46993;  
ROW: ('700 DEAN KEETON', 46994L)  
700 DEAN KEETON,Austin,TX  
46994  
UPDATE zip_code_map SET zip_code = 78705 WHERE row_number = 46994;  
ROW: ('700 DELMAR AVE', 46995L)  
700 DELMAR AVE,Austin,TX  
46995  
UPDATE zip_code_map SET zip_code = 78752 WHERE row_number = 46995;  
ROW: ('700 DENDON DR', 46996L)  
700 DENDON DR,Austin,TX  
46996  
UPDATE zip_code_map SET zip_code = 78752 WHERE row_number = 46996;  
ROW: ('700 DITTMAR RD', 46997L)  
700 DITTMAR RD,Austin,TX  
46997  
UPDATE zip_code_map SET zip_code = 78745 WHERE row_number = 46997;  
ROW: ('700 E 10TH ST', 46998L)  
700 E 10TH ST,Austin,TX  
46998
```



Configuration File - Architecture

1

```
[DATASOURCE1]
url = https://data.austintexas.gov/resource/s7xq-bupu.json
table_name = racial_profiling_arrests
last_update_col = rep_date
last_update_val = 2015-12-31T00:00:00.000
truncate = False
type = SODA
```

2

```
[CUSTOM1]
source_table = racial_profiling_arrests
target_table = racial_profiling_arrests_temp
custom_map_col = location
type = SODA
```

3

```
[AGGREGATE1]
source_table = racial_profiling_arrests_temp
target_table = racial_profiling_arrests_aggregate
last_update_col = rep_date
last_update_val = 2015-12-31T00:00:00.000
truncate = False
type = SODA
```


CRON scheduler

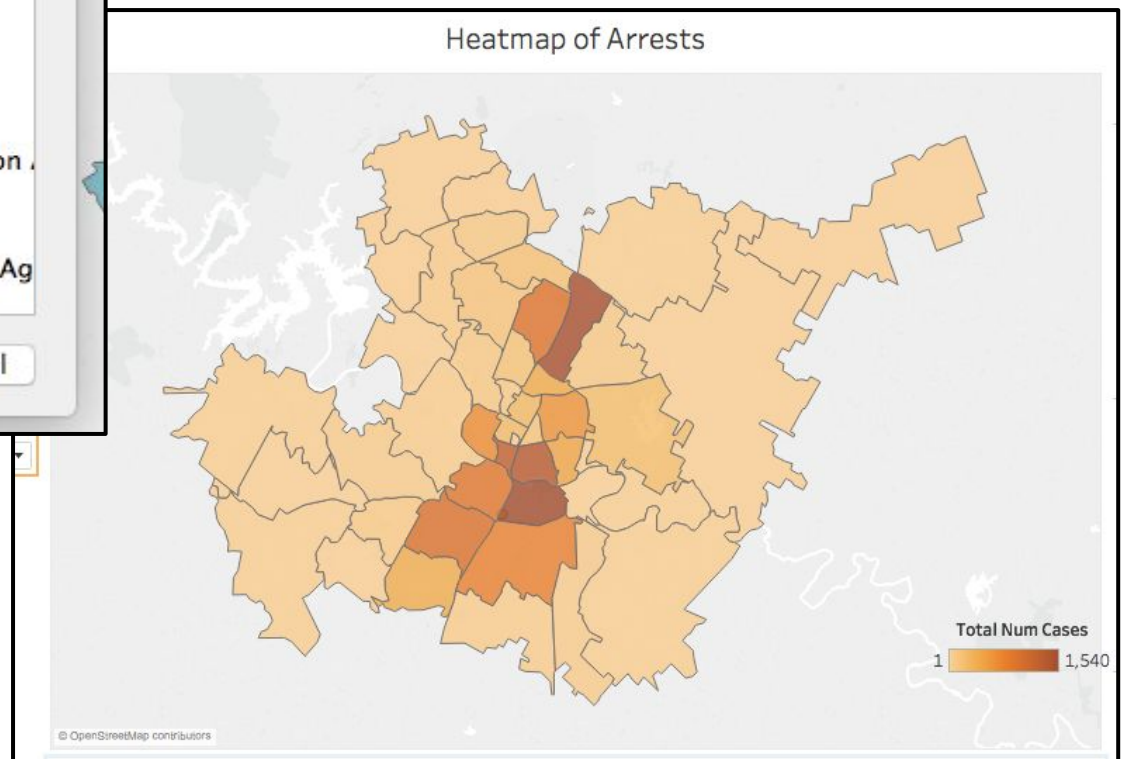
```
[tw205@ip-172-31-57-123 load]$ python update_tables.py
Starting data extract for data source (commercial_water_consumption) at time (2017-04-20 16:00:04.879013).
Added 11711 records at time (2017-04-20 16:00:04.879013).
Loaded 11711 records to data source (commercial_water_consumption).
Ended data extract for data source (commercial_water_consumption) at time (2017-04-20 16:00:19.277290).
Ending last_update_field = year_month
Ending last_update_value = 201609
```

```
Starting data extract for data source (code_complaint_cases) at time (2017-04-20 16:00:19.280528).
Added 50000 records at time (2017-04-20 16:00:19.280528).
Added 13315 records at time (2017-04-20 16:00:19.280528).
Loaded 63315 records to data source (code_complaint_cases).
Ended data extract for data source (code_complaint_cases) at time (2017-04-20 16:01:46.043475).
Ending last_update_field = opened_date
Ending last_update_value = 2017-04-19T00:00:00.000
```

[illegible]

- Data load setup to run once a day
- Writes to log files

Dashboard Live Demo

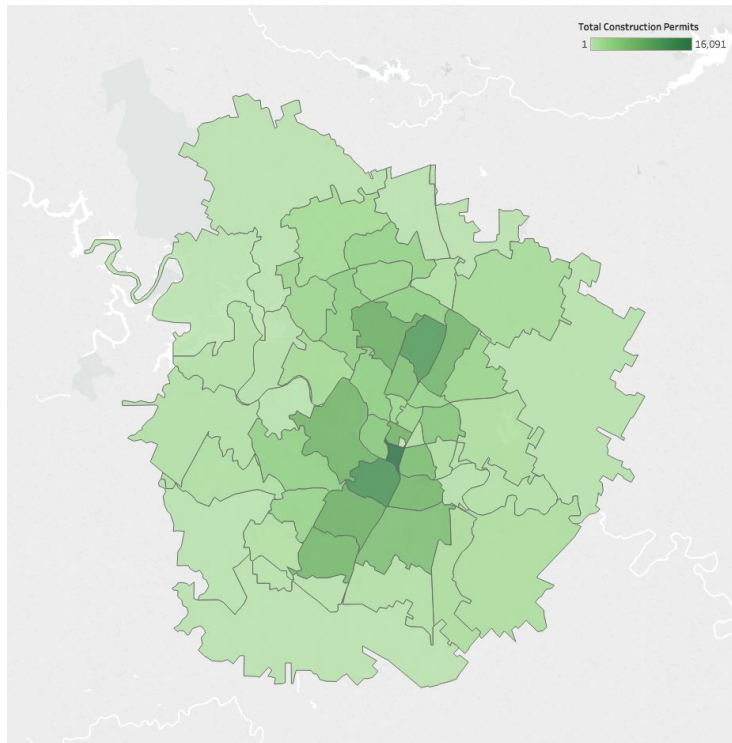




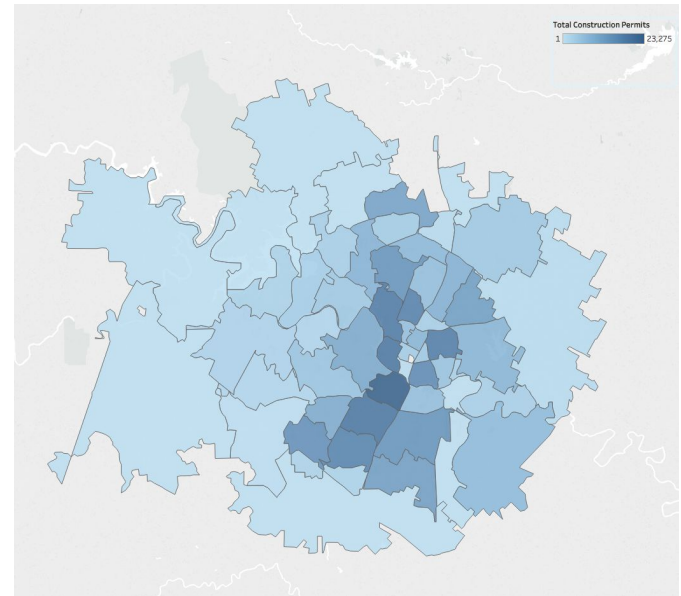




2008-2017 Construction Permit Counts



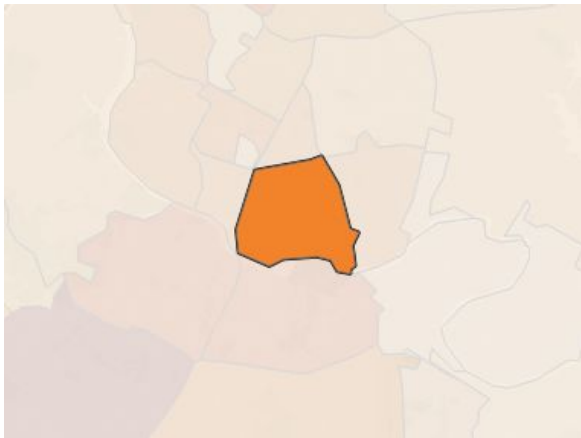
Commercial Permits



Residential Permits

Racial Profiling for Zip Code 78702

2014:

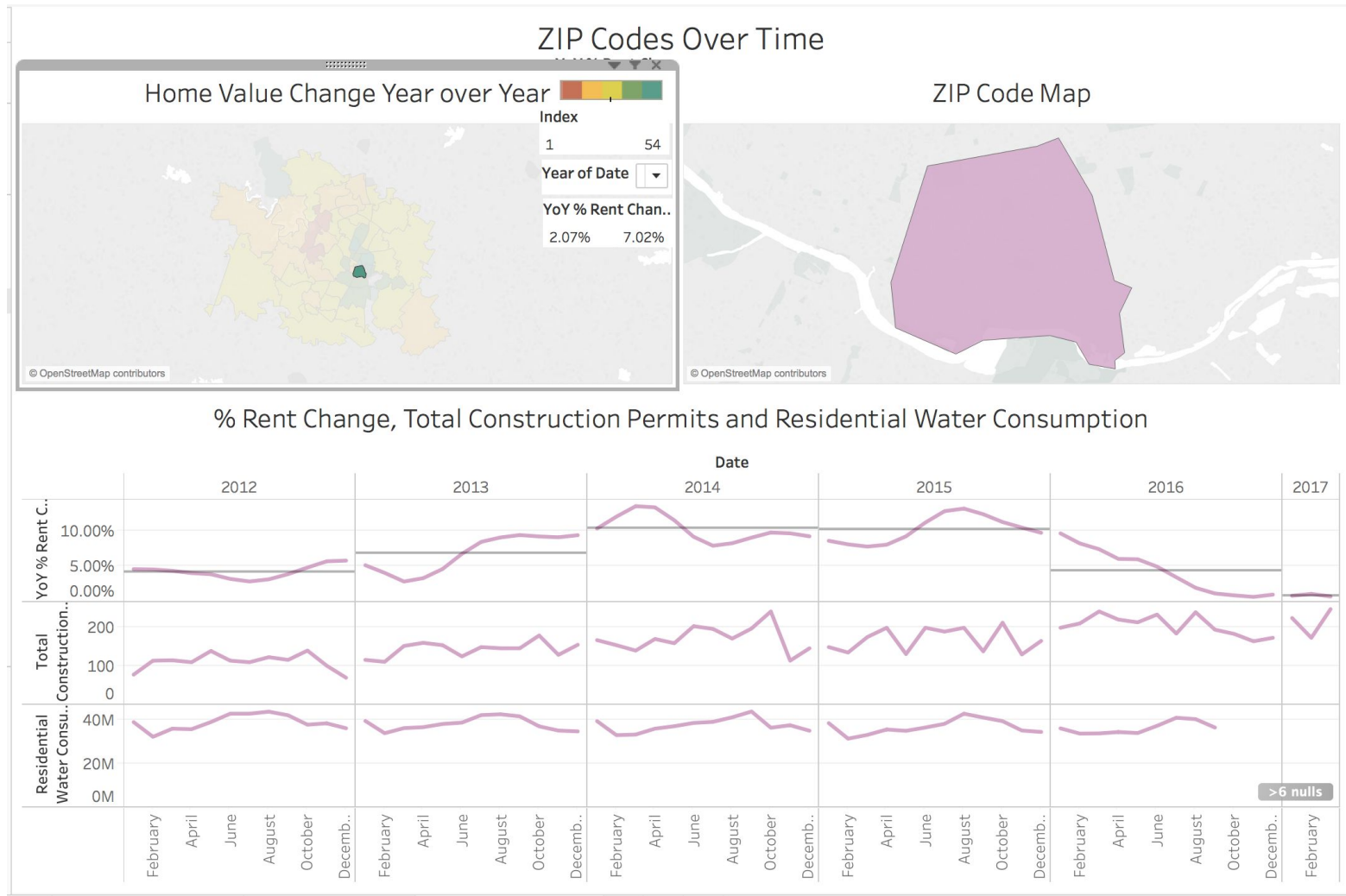


2016:

Reason For Stop	Asian		Black		Hispanic		White		Other	
	Citations	% by Race	Citations	% by Race	Citations	% by Race	Citations	% by Race	Citations	% by Race
Pre-existing Knowledge			1	50.00%	1	50.00%				
Specific Detail			1	25.00%			3	75.00%		
Suspicious Person					1	100.00%				
Vehicle Violation	47	2.03%	353	15.24%	910	39.29%	941	40.63%	65	2.81%
Other	1	4.35%	4	17.39%	11	47.83%	7	30.43%		
Grand Total	53	1.99%	430	16.17%	1,068	40.15%	1,032	38.80%	77	2.89%

Reason For Stop	Asian		Black		Hispanic		White		Other	
Pre-existing Knowledge					3	50.00%	3	50.00%		
Specific Detail					4	66.67%	2	33.33%		
Suspicious Person					3	100.00%				
Vehicle Violation	59	1.42%	691	16.59%	1,548	37.18%	1,751	42.05%	115	2.76%
Other			1	7.14%	10	71.43%	2	14.29%	1	7.14%
Grand Total	65	1.45%	744	16.55%	1,712	38.08%	1,854	41.24%	121	2.69%

Zip Code 78702 Changes Over Time



Future Steps

1. Handling increase in number of users
2. Handling new data sources
3. Handling new cities
4. More affordable zip code conversion
5. Improved real estate data
6. Change data load frequency
7. Change configuration method
8. More dashboards!