

# Visualizing Texas: pdf\_document

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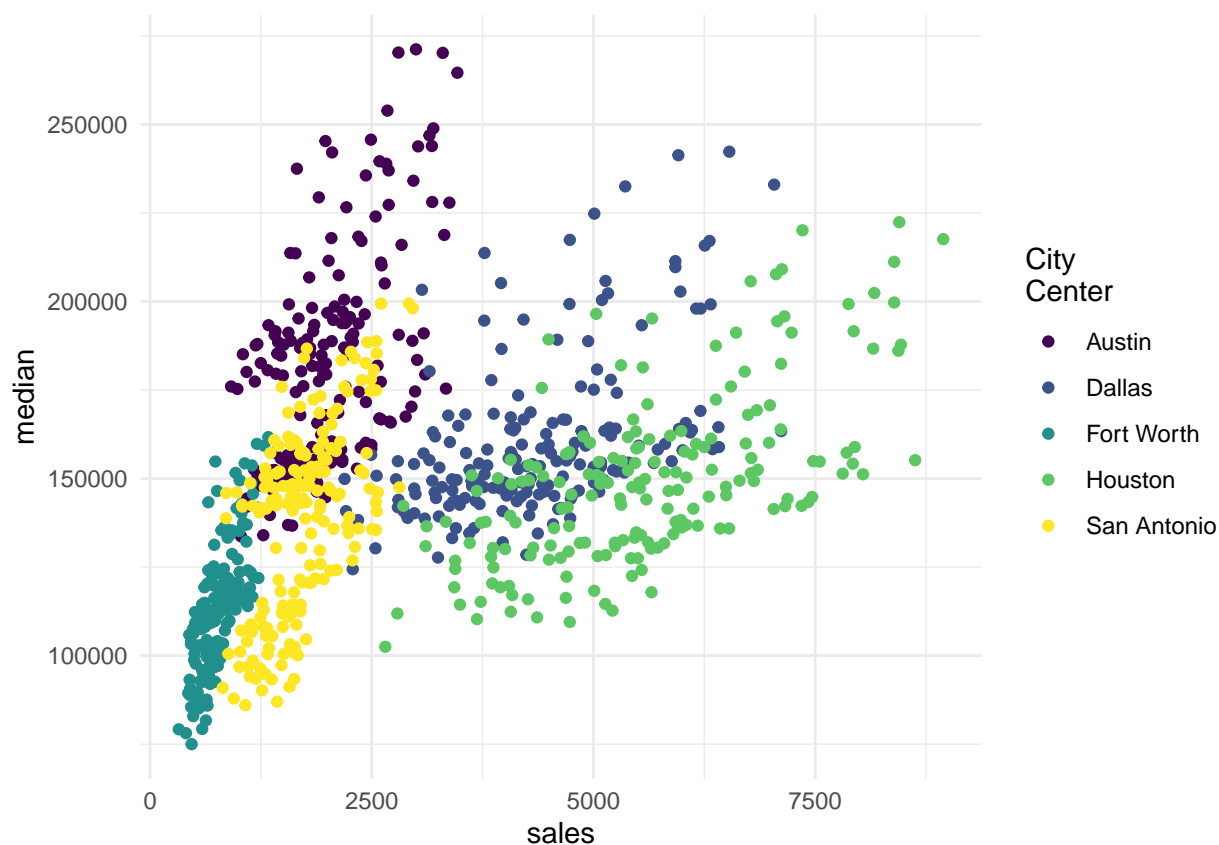
## Packages and data

We'll use `ggplot2` for visualization, and some light `dplyr` for data wrangling. The `txhousing` data is loaded for you when you install and load the `ggplot2` package.

```
library(ggplot2) # plotting
library(dplyr)   # wrangling
txsamp <- txhousing %>%
  filter(city %in% c("Houston", "Fort Worth", "San Antonio", "Dallas", "Austin"))
```

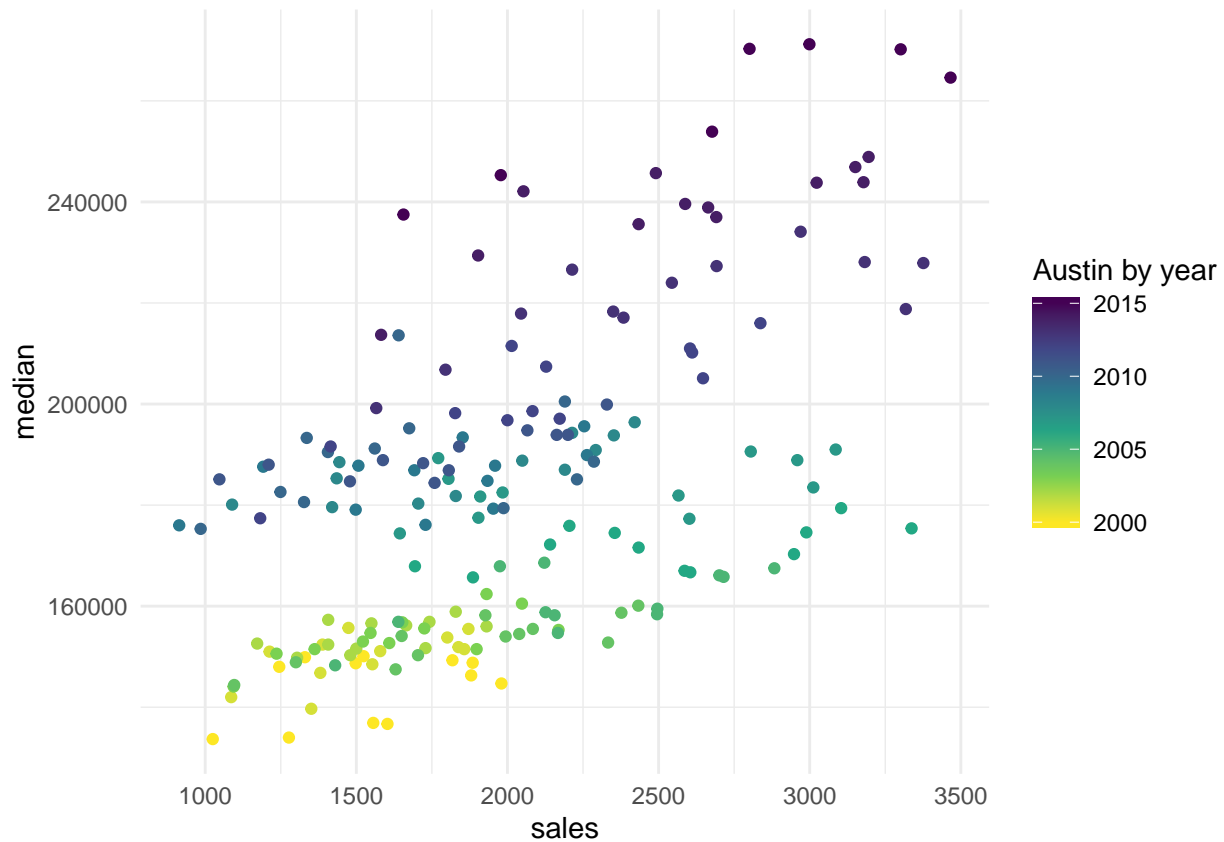
## Austin is expensive

```
ggplot(data = txsamp, aes(x = sales, y = median)) +
  geom_point(aes(colour = city)) +
  scale_colour_viridis_d("City\nCenter", option = params$viridis_palette)
```



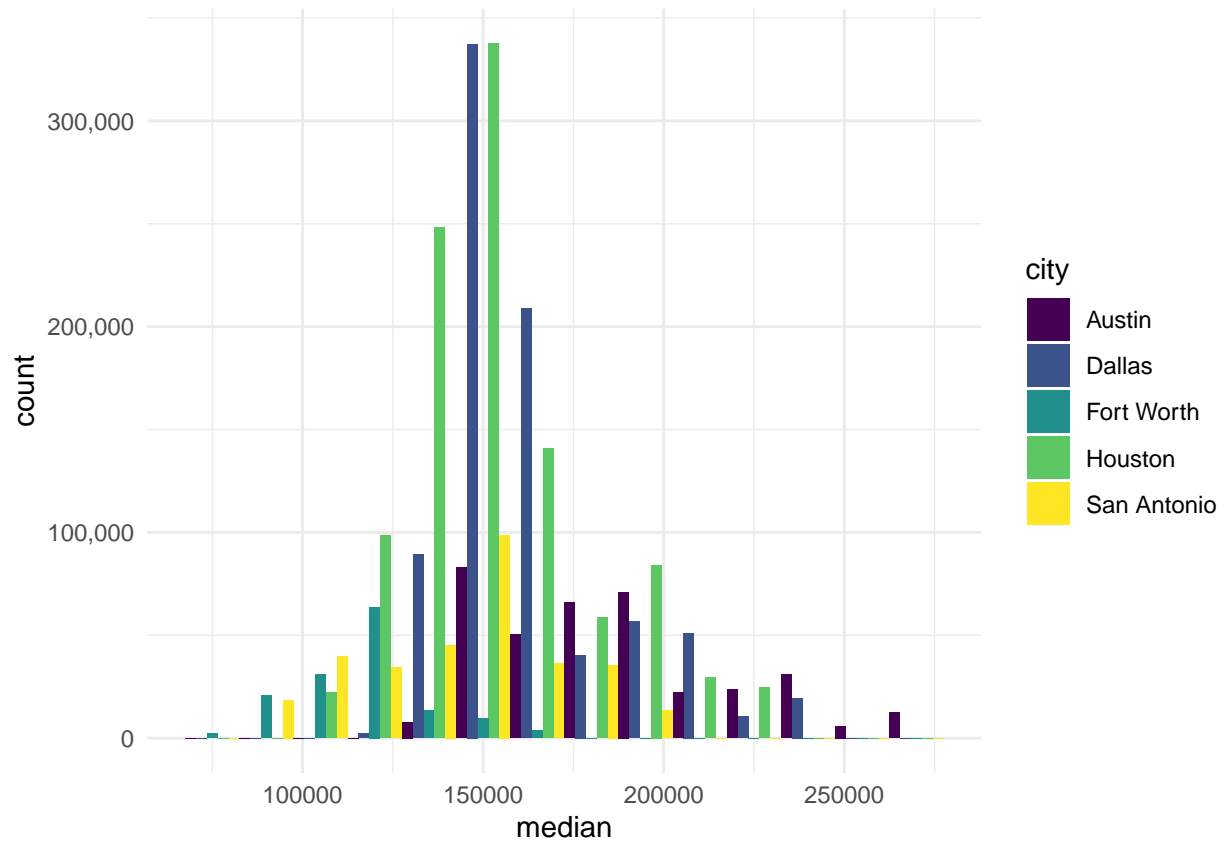
## Austin prices on the rise

```
ggplot(data = filter(txsamp, city == "Austin"), aes(x = sales, y = median)) +  
  geom_point(aes(colour = year)) +  
  scale_colour_viridis_c("Austin by year", option = params$viridis_palette, direction = -1)
```



## Fort Worth has more affordable housing

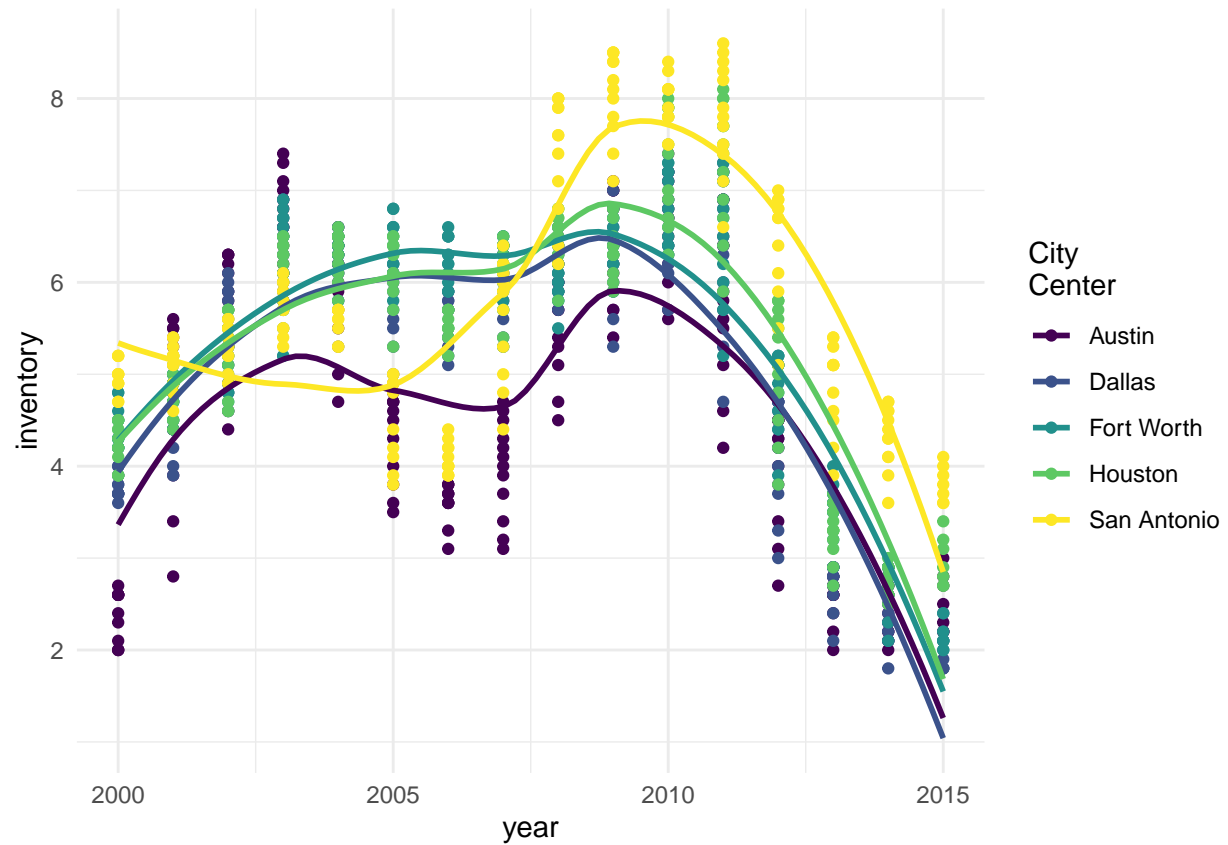
```
library(scales) # to make y-axis in non-scientific notation  
ggplot(txsamp, aes(x = median, fill = city)) +  
  geom_histogram(aes(weight = sales), position = "dodge", binwidth = 15000) +  
  scale_fill_viridis_d(option = params$viridis_palette) +  
  scale_y_continuous(labels = comma)
```



## The current pace of sales is fast

“Months inventory”: amount of time it would take to sell all current listings at current pace of sales.

```
ggplot(data = txsamp, aes(x = year, y = inventory, colour = city)) +
  geom_point() +
  geom_smooth(se = FALSE) +
  scale_colour_viridis_d("City\nCenter", option = params$viridis_palette)
```



Thanks to...

- Jennifer Thompson: <https://github.com/jenniferthompson/ParamRmdExample>
- Garrett Golemund: <https://rmarkdown.rstudio.com/lesson-6.html>