

A map of the San Francisco Bay Area, showing the bay and surrounding land areas. The land is divided into various shades of gray, representing different jurisdictions or regions. The bay is a dark blue color. The map is positioned on the right side of the slide, with the text on the left.

Building Permit Metrics for the San Francisco Bay Area

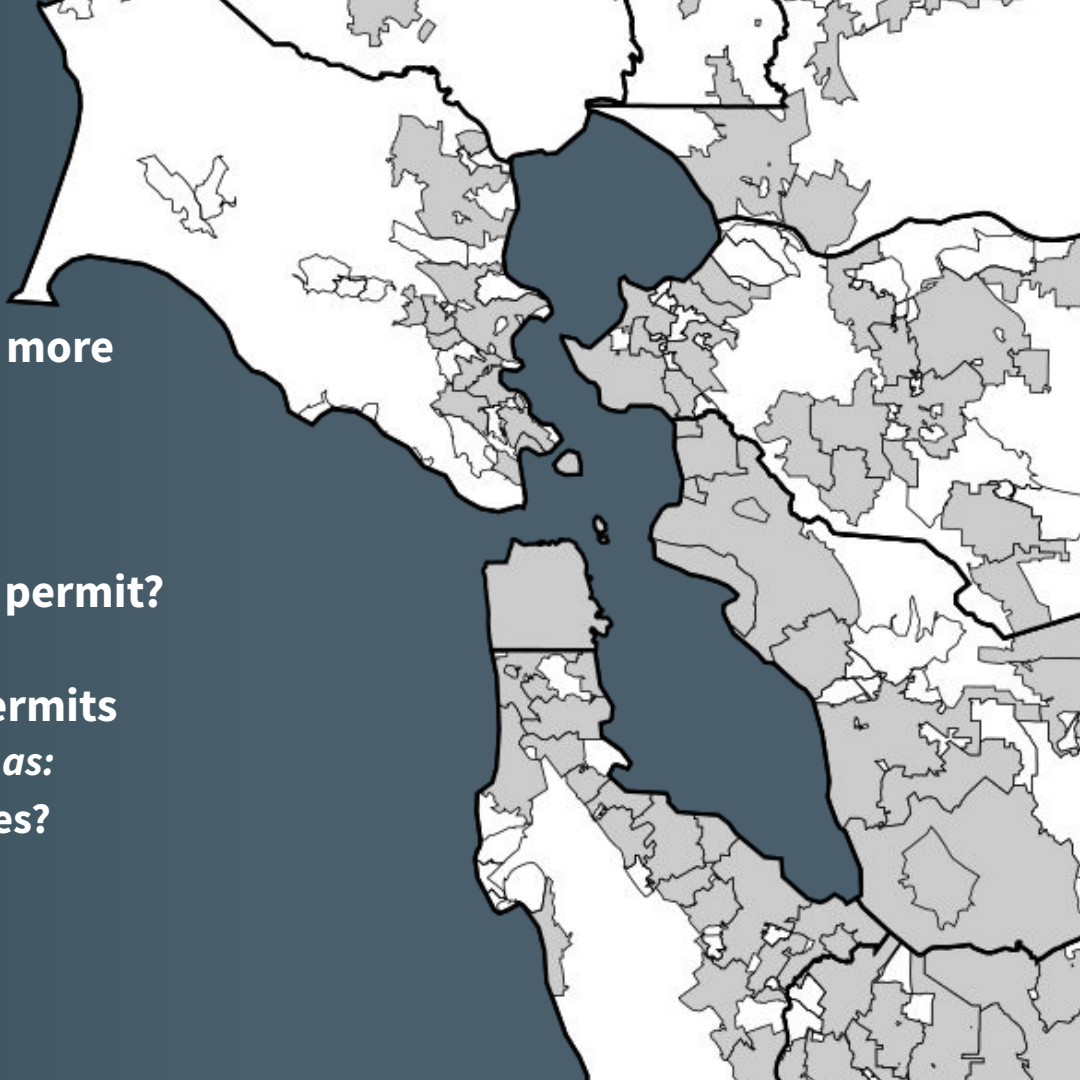
CPLN 680 – Mar 28th

by Alexander Nelms

[LINK TO PRESENTATION](#)

Research Questions

1. Which neighborhoods are seeing more building permits & housing units between 2016 to 2022?
2. Where is it more difficult to get a permit?
3. Are neighborhoods with more permits suffer more gentrification? *such as:*
 - significant demographic changes?
 - increasing income inequality?
 - historic discrimination?



Study Areas

1. San Francisco

similar to Philly Center City, some of Manhattan

- higher density, diverse city
- population of 874k

2. Oakland

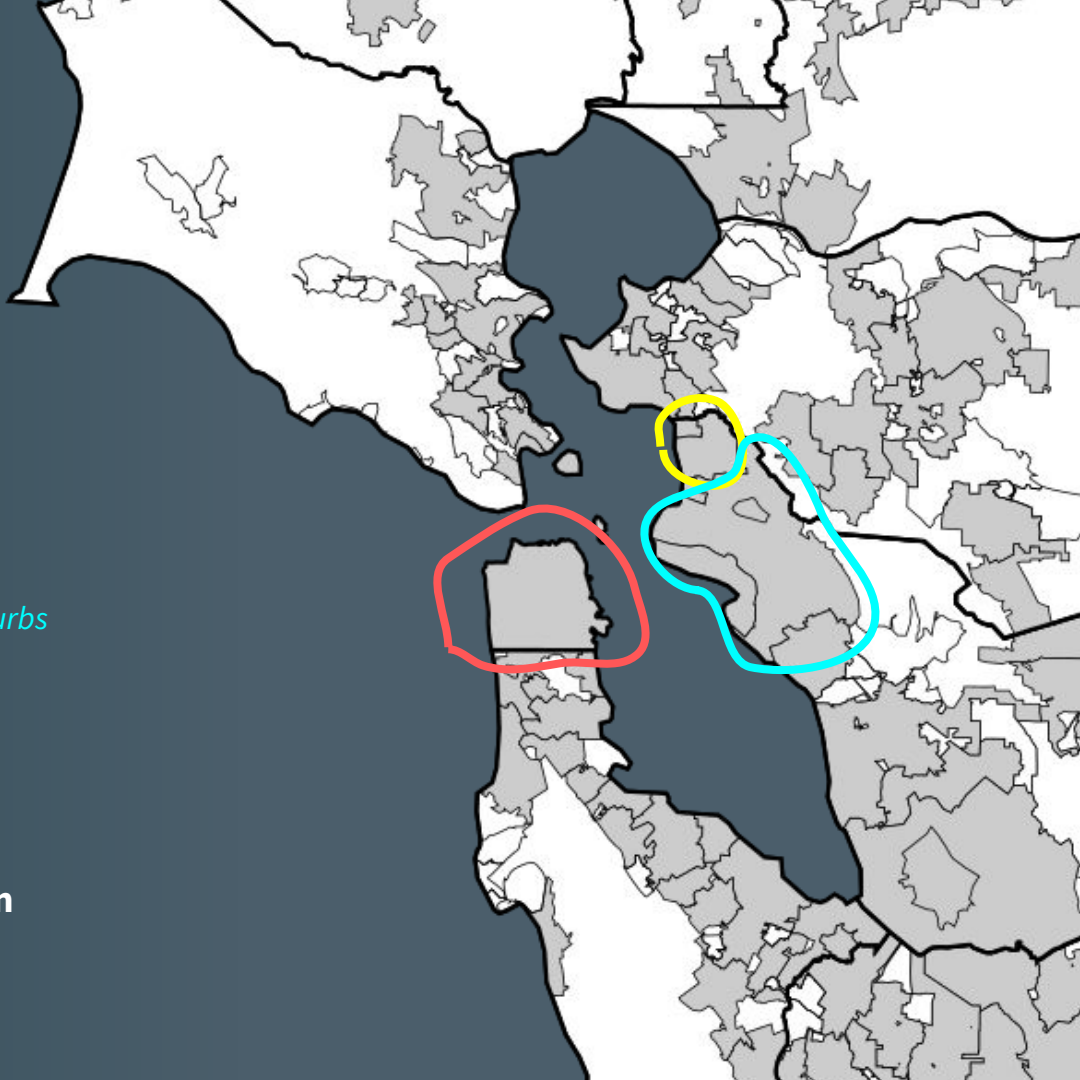
similar to parts of North Philly, Center City, & Suburbs

- mix of density, incomes, & growth
- population of 425k

3. Berkeley

similar to University City, West Philly, Cambridge

- suburban & semi-dense college town
- in 1970, population of 114k
- In 2010, population of 112k





A Housing Crisis?

1. Since 1990, 7 out of the 10 US Counties with the highest Housing Price Index are in the Bay Area
2. Oakland leads in homelessness rate at 742 unsheltered people per 100k
3. Bay Area cities set housing targets for 2040, if they remained at the same rate of the last 10 years, it would take:
 - a. San Francisco until 2063
 - b. Oakland until 2295
 - c. Berkeley until 2305



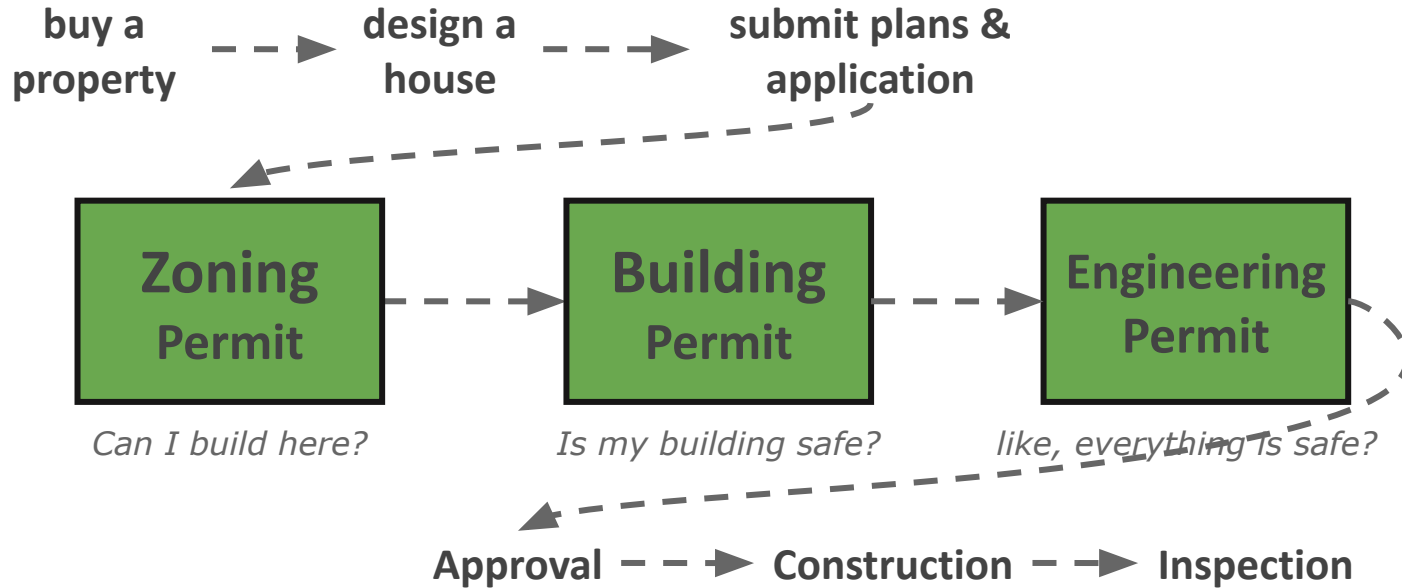
Why does the Bay Area have a Housing Crisis?

- 1. Many years of restrictive land use regulations & NIMBY residents prevented growth**
- 2. The lack of a regional government to overrule selfish cities**
- 3. Consistently explosive economy from the tech industry**
- 4. A limited housing supply provides more opportunities for people to be priced out, evicted, and put on the streets**



~~How Can I Obtain a Building Permit?~~

how can i obtain a permit to build a building?



How Can I Obtain a Zoning Permit?



APPLICANT (Developer or Homeowner)

submit
application

resubmit
application

INCOMPLETE

Internal
Review

Application
Deemed
Complete

Administrative
Decision

APPROVED

Public Hearing
Commission

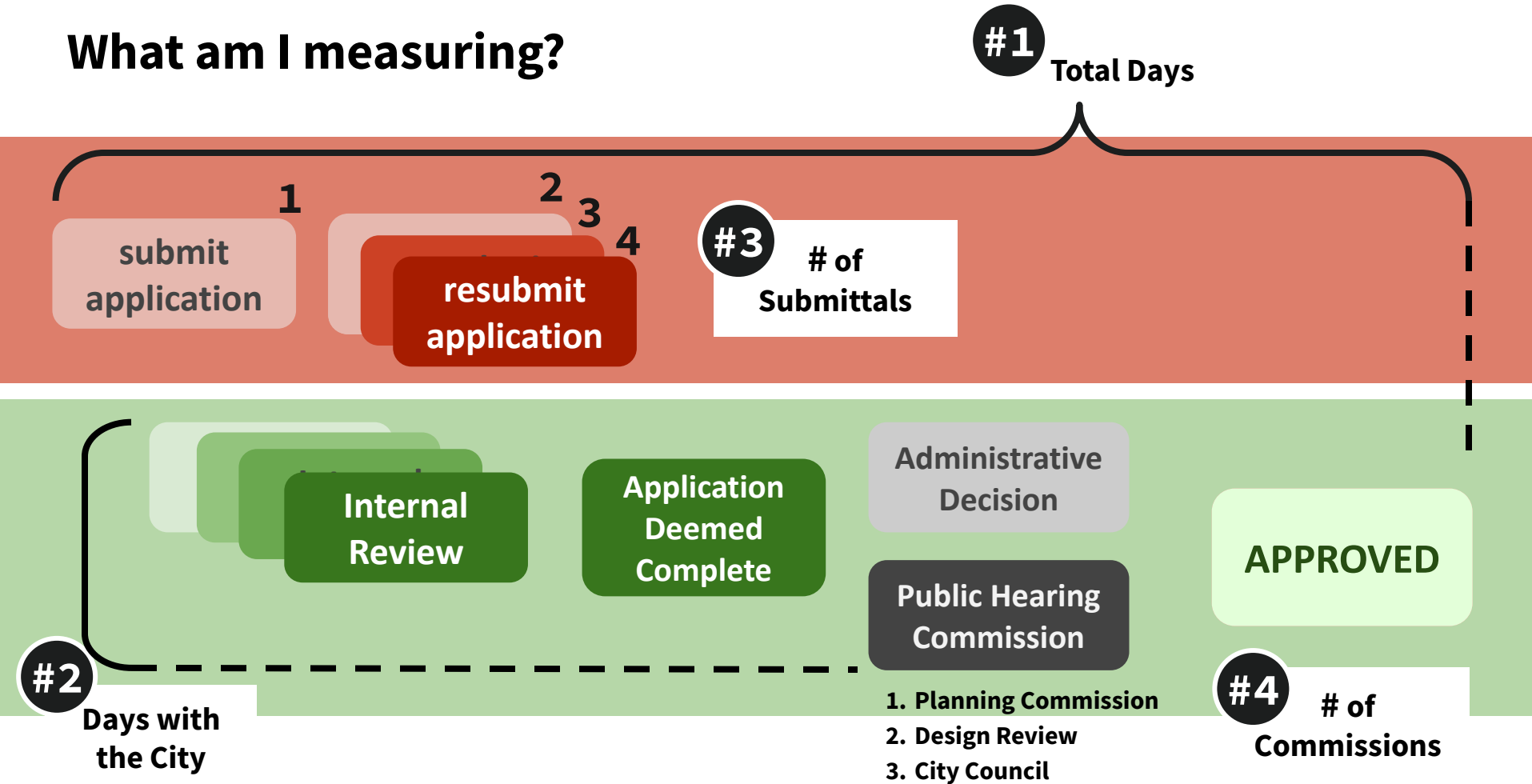
CITY GOVERNMENT

- Complete Application
Compliant with Zoning?
with other Departments?
- Planning? • County?
 - Building? • Environmental
 - Engineering? Agency?
 - Fire? • State?

- PC • Historic Preservation
- DRC • Public Works
- TC • City Council



What am I measuring?



What does the data look like?

Permit Timeline

- from a Government Permitting Database
- Timeline of Tasks

Permit Information

- Building Type
- Associated Permits
- Address



#3

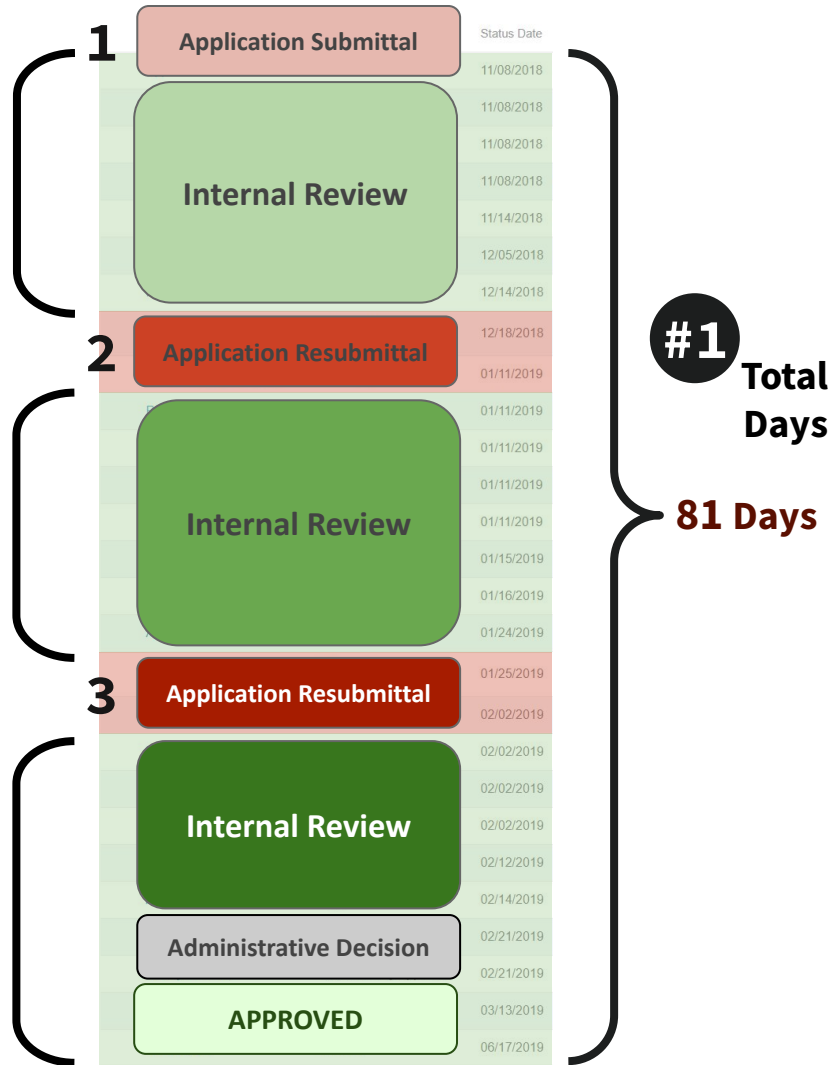
of
Submittals

3 Submittals

#2

Days with
the City

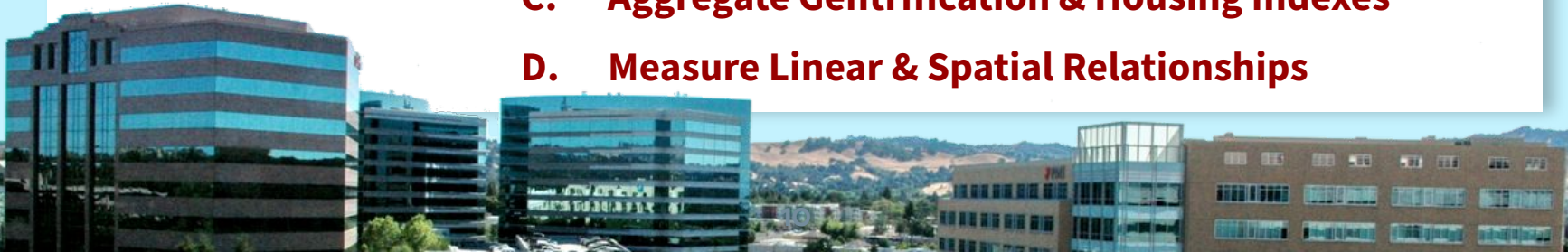
52 Days





Project Steps

1. Which neighborhoods are seeing more building permits & housing units?
 - A. **Gather & Locate Building Permits**
2. Where is it more difficult to get a permit?
 - B. **Measure Permit Lengths**
3. Are neighborhoods with more permits suffer more gentrification?
 - C. **Aggregate Gentrification & Housing Indexes**
 - D. **Measure Linear & Spatial Relationships**





Project Steps

Permit Data

1. Gather Permits
 - a. ~~San Francisco~~
 - b. Oakland
 - c. Berkeley
2. Locate Permits

Gentrification Data

3. Gather Spatial Comparisons
 - Housing Market Increases – *via Home Prices, Rental Costs, Evictions*
 - Changing Demographics – *via Race, Income, Age, Employment, Education*
 - Historically Adverse Policies – *Exclusionary Zoning, Racial Discrimination*

Analyzing & Comparing

4. Linear Models comparing changes in permits to additional variables
 - *What appears to be the biggest contributor to there being more permits in a neighborhood?*
 - *What are the trends over time?*