

# Streamlining property tax appraisals



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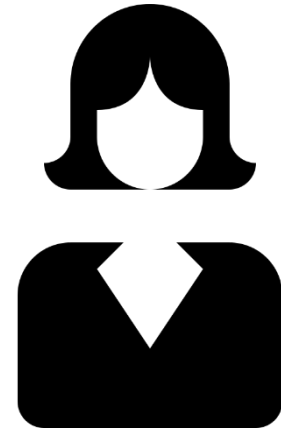
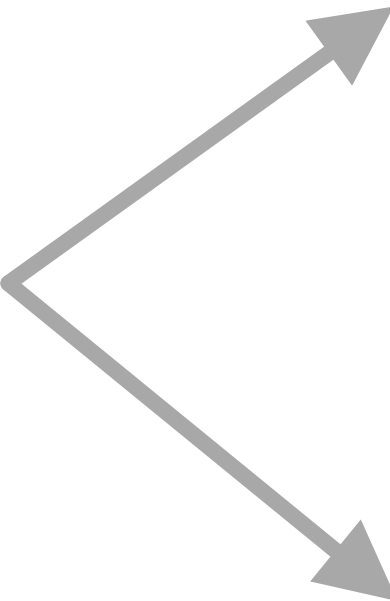
CITY & COUNTY OF SAN FRANCISCO  
**OFFICE OF THE ASSESSOR-RECORDER**

Dana Cano & Chris Castle  
Principal Real Property Appraisers  
Assessor-Recorder

Ms. Jenkins wants to sell her family home to her friend for \$500K but her home is really worth \$1 million



Ms. Jenkins



Sale to friend



\$500K



Sale on open market

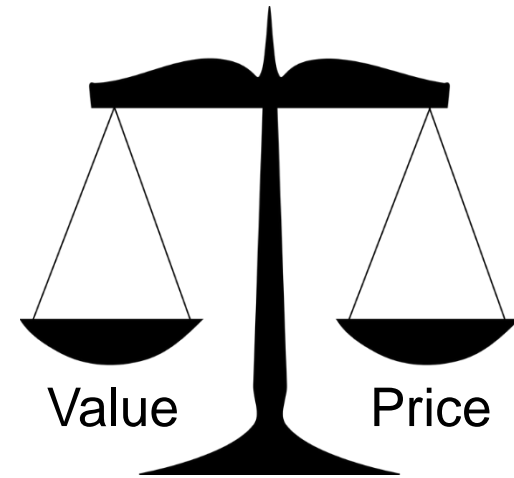


\$1M

Every time a property changes hands, the Assessor-Recorder must determine if the sale price matches the Fair Market Value (FMV) as of the sale date



**Sale price**

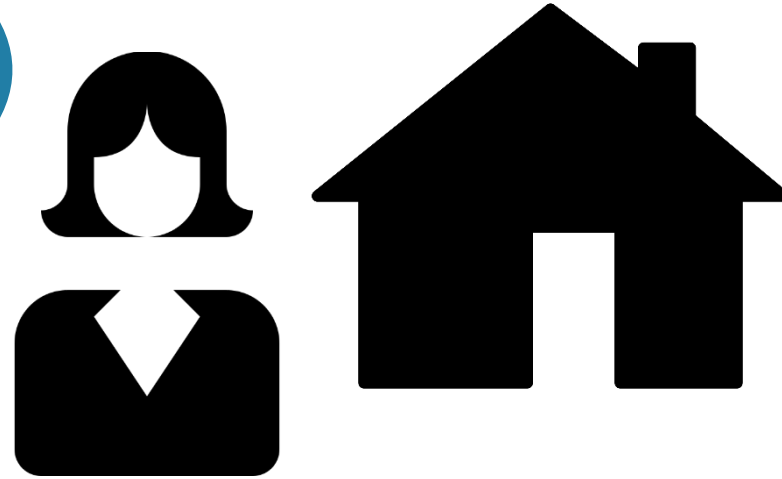


**Fair market value**

If we accept Ms. Jenkins \$500k sale price, her friend will pay lower taxes than other taxpayers who purchased on the open market for \$1 million, which is unfair



You pay what in property taxes?!?!  
Mine are twice as much!



**Ms. Jenkins friend**

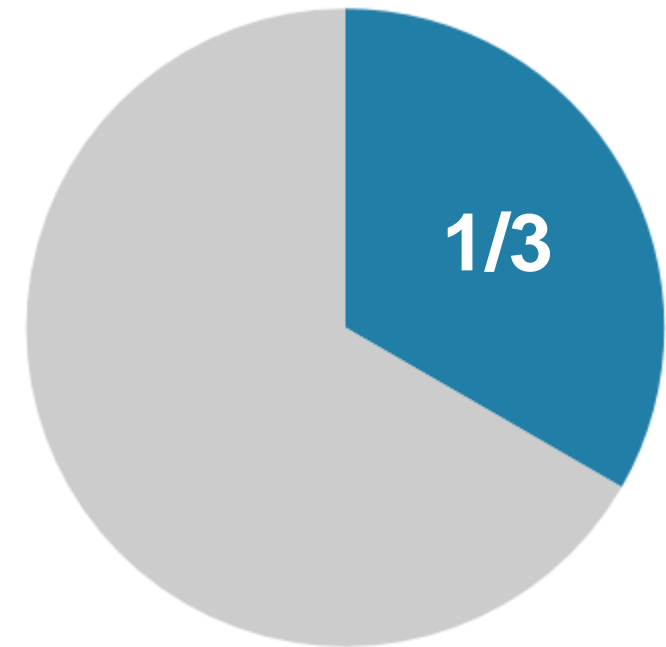
**Neighbor who spent \$1M on a similar home**

It also impacts City, SFUSD, and CCSF finances since property taxes generate over \$2.5 billion in local revenues and represent one-third of the City's general fund

**\$2.5 BILLION**

**annually**

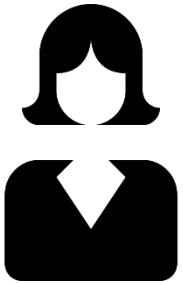
Proportion of City general fund from property taxes



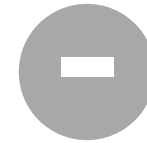
Using Ms. Jenkins as an example and to keep the math easy, a 1% tax on \$1M is \$10K or twice the revenue of \$5K which is 1% of \$500K



$$1\% \times \$1M = \$10K$$



$$1\% \times \$500K = \$5K$$



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$$\$5K$$

The challenge for us is to determine the fair market value (FMV) of Ms. Jenkin's home and all the other homes that sell each month

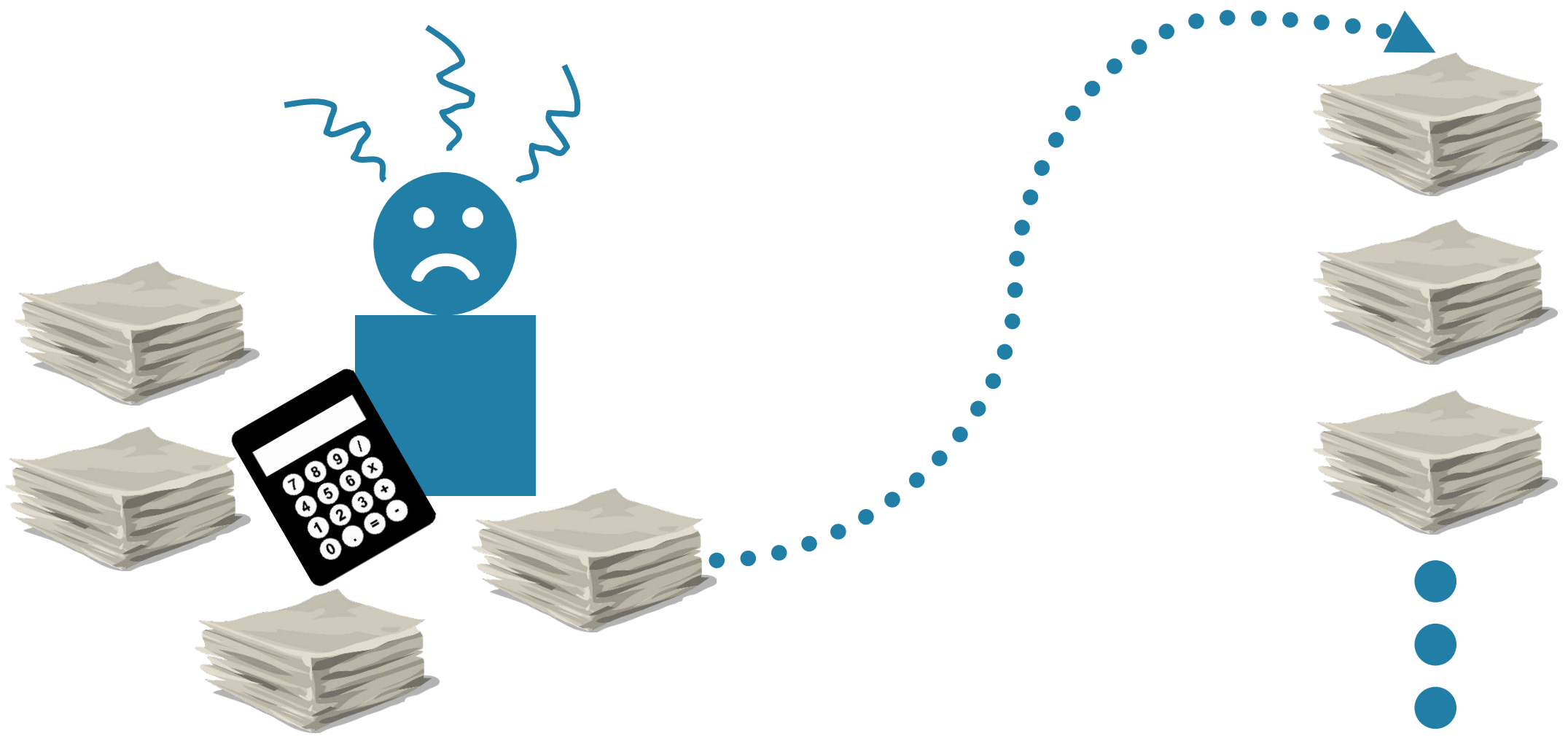


**Accept sales price as FMV**



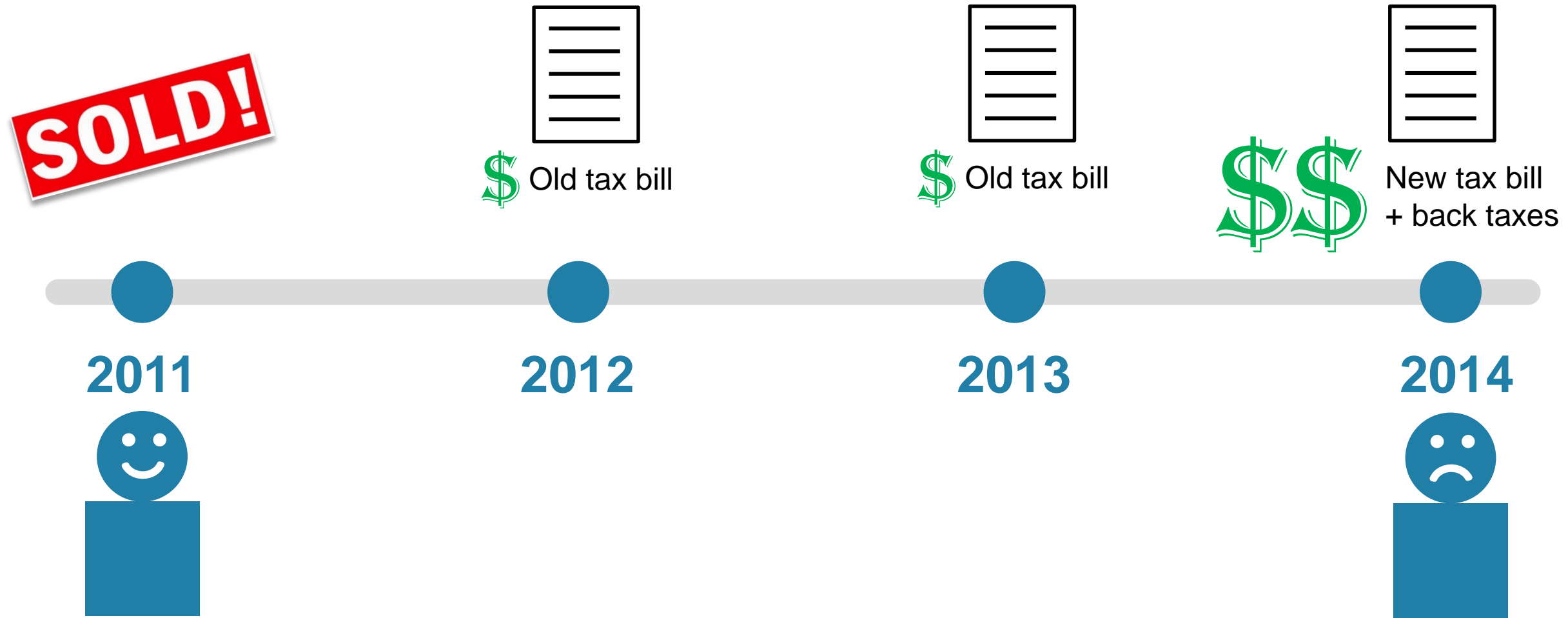
**Reject sales price and determine FMV**

Doing a full appraisal for each sale is time consuming and we already have heavy caseloads





# Delays in assessment also impacts the buyer: no one likes to receive a property tax bill 3 years after buying



Is there a better way to check whether the sales price is the fair market value to help sort and prioritize our workload?



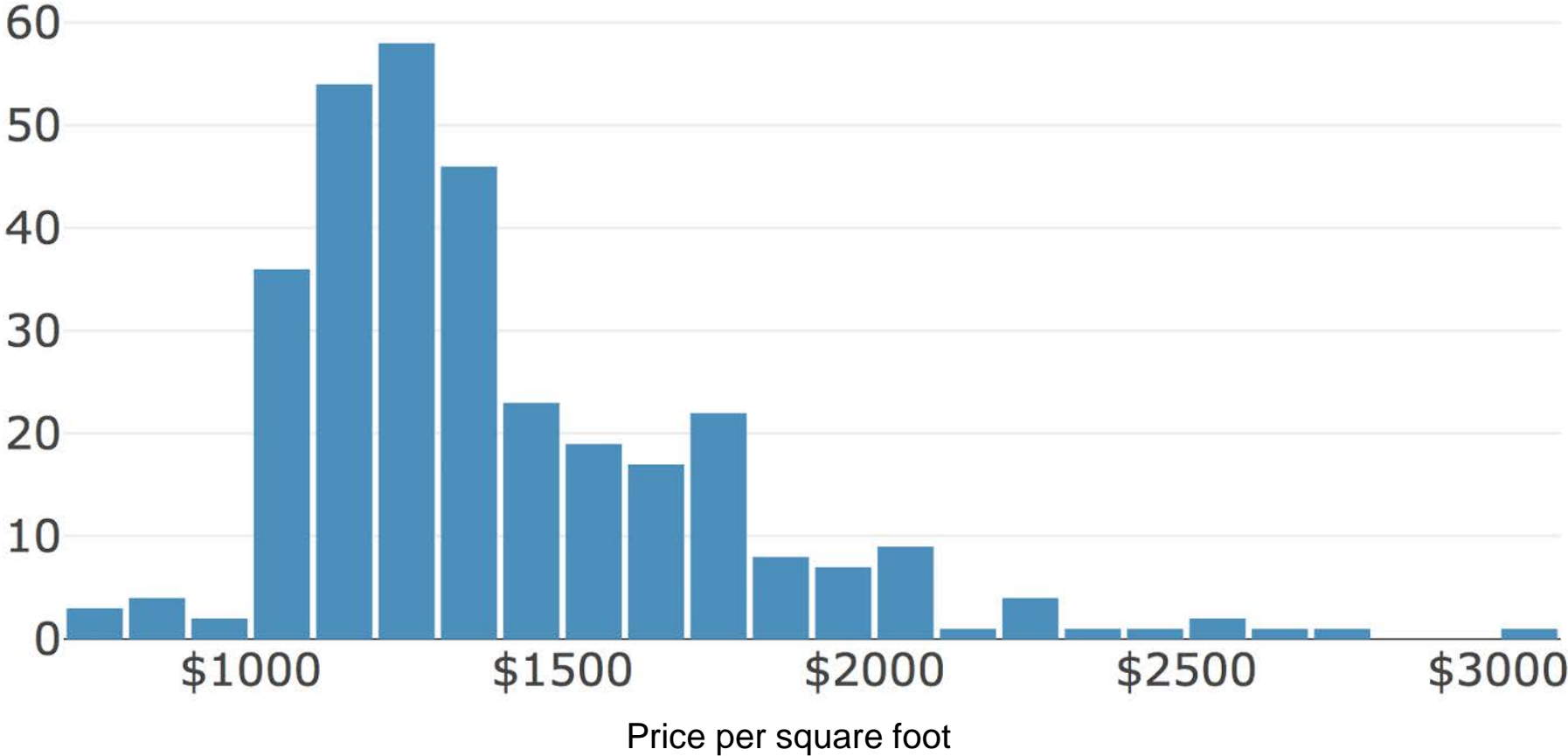
- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_



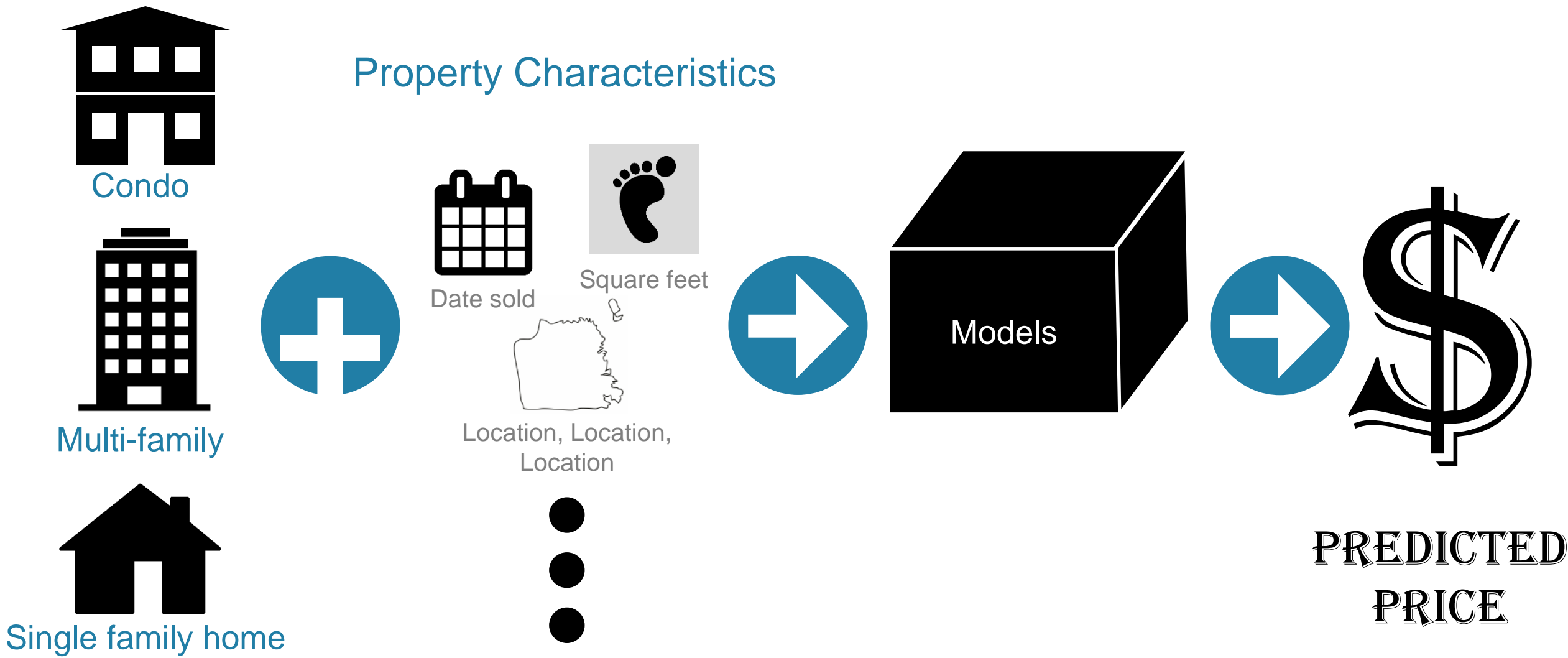
Data**Science**<sub>SF</sub>

# The challenge is that home prices are highly variable – even in the same neighborhood

Price per square foot by number of sales for condos in 2016 in the Financial District South



# We developed three models by property type that generate a predicted fair market value as of the sale date





**Service  
Change**

Starting this month, we used the model to compare the predicted price with the actual sale price



PREDICTED PRICE



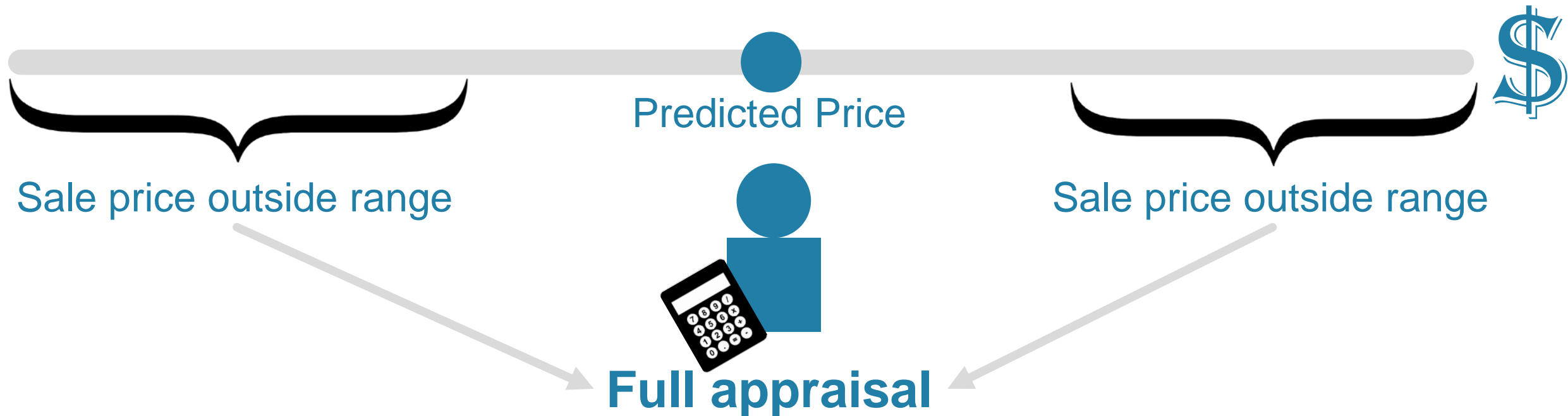
SALE PRICE

If the sale price is within a certain range of the predicted price, we do quick quality checks and then accept the sale price as the fair market value, leading to faster billing





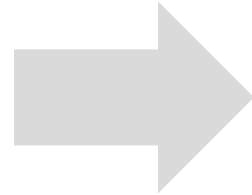
If the sale price is far away from the predicted price, we conduct a full appraisal



The first run of the models reduced the workload by 166 properties or 10% giving the city immediate access to \$239 million in roll value leading to ~\$2.8M in revenue

**\$239 M**

in roll value



**\$2.8 M**

in tax revenue

&

CITY & COUNTY OF SAN FRANCISCO  
**OFFICE OF THE ASSESSOR-RECORDER**

Data,<sup>^</sup> for the love of the City



**THANK YOU**

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