

# Overview of Maricopa County Data and Land Valuation

JENNIFER REARICH, MAS, RES



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# Overview

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- About Maricopa County
- History of Valuation Methods
- Data provided for Fellowship

# About Maricopa County

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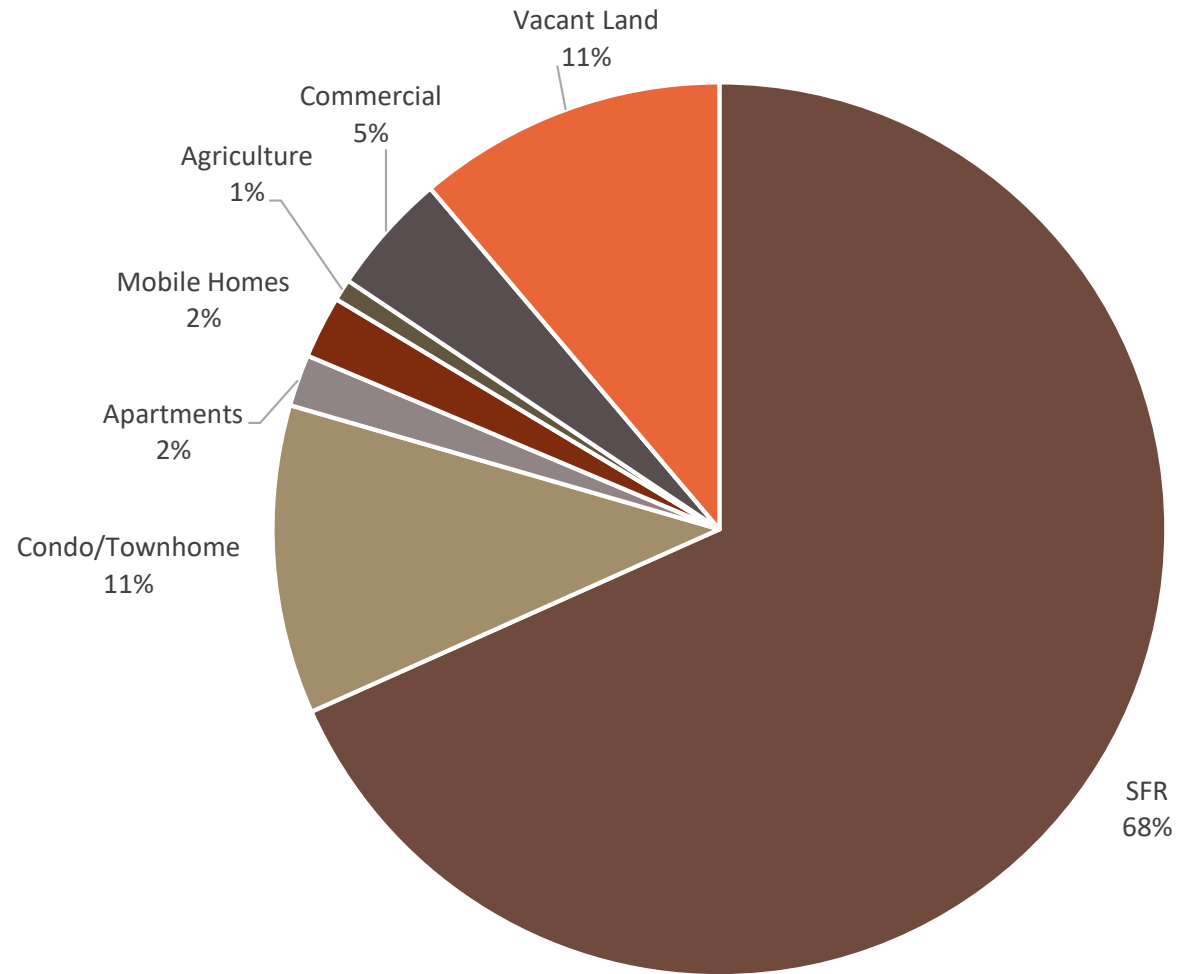


- 4.4 million residents (2019)
- 9,224 square miles
- 106.1°F avg summer temp
- 300 days of sunshine annually
- 1.67 million parcels
- \$607.5 billion total FCV (2020)
- 260 Assessor's Office Staff
  - o 9 modelers

# Distribution of 1.67 million Parcels

- Annual valuations based on current use
- 29 Residential Market Areas
- 7 Commercial Market Areas
- 76 models developed annually
- Two Annual Assessment Rolls
- Team of nine modelers

Maricopa County Parcels by Use (TY2022)



# History of Valuations Methods

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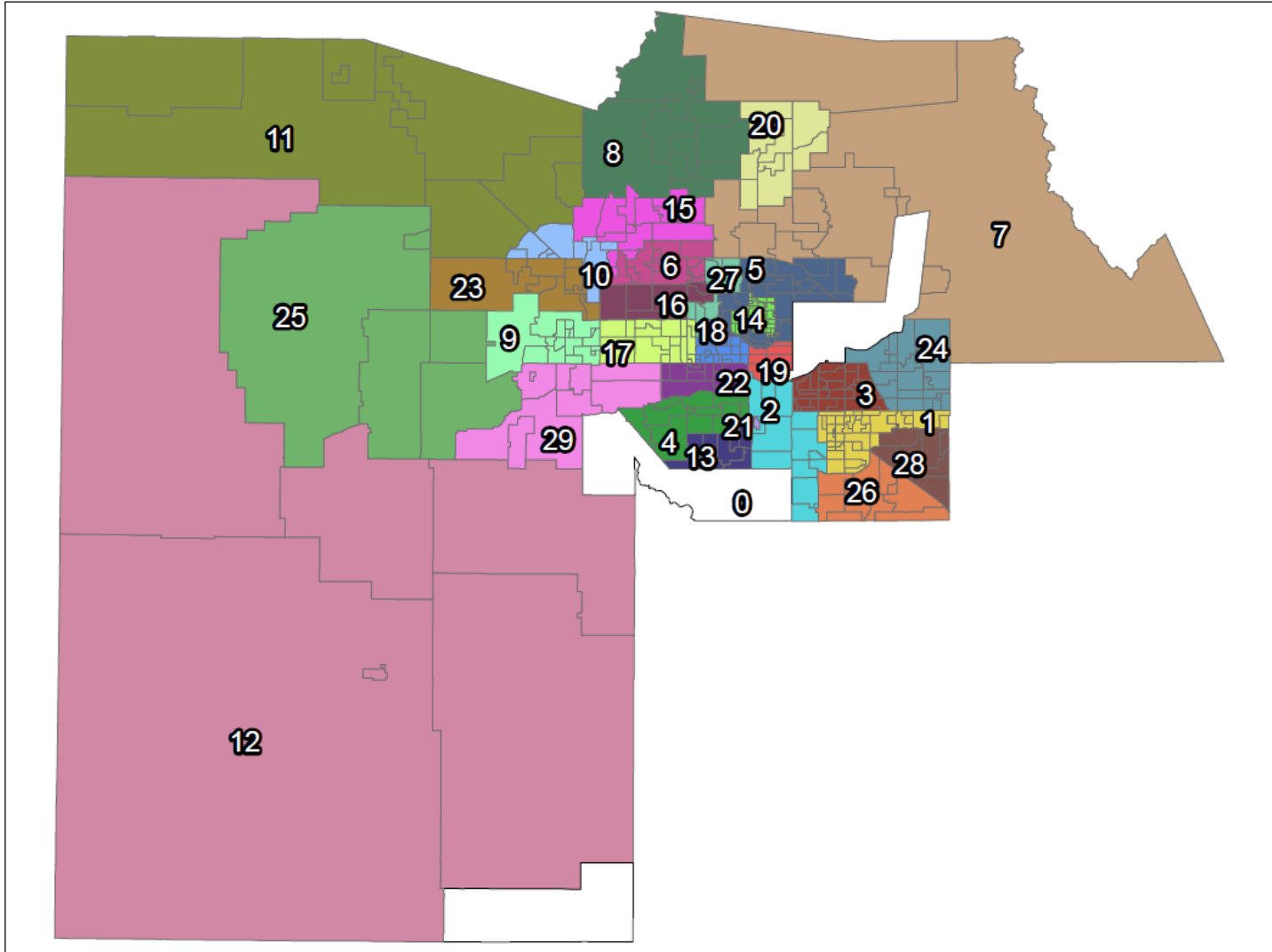
- In 1997, County realized there were significant problems with valuations
  - Values were inequitable or inconsistent
  - Values took too long to be determined
  - Not all properties were being valued as of the same valuation date
  - Land Values were particularly low relative to the market
  - Valuation techniques were illogical and difficult to explain and defend
- Began to make shifts towards mass appraisal regression models

## Transition to Valuation Models

In 1998, massive two-year effort to data collection effort to determine land sizes as well as establish market areas and neighborhoods

Over the next few years, different property types began to be modeled

Land valuation transitioned from a three-year manual process using paper maps and sales books to developing annual models informed by GIS and sales database



TY2022 RNBHD Boundaries

# Market Areas

- Many existing ways to describe location such as census tract or zip code, but these are not defined by economic factors affecting real estate.
- Over time, we have introduced new market areas and refined existing boundaries as development has occurred.



# Residential Valuation Methods

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- Residential Improved Properties valued with multiplicative MRA
  - This is a unitary valuation method supported by improved sales, but makes it difficult to estimate a land value since land is a variable in the model itself
  - Avoids challenge of needing vacant land sales
  - Appeals can only challenge total FCV
  - Instead, use an allocation method:
    - Land = 20% of Total Value
    - Improvements = 80% of Total Value





# Land Valuation Methods

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- Two types of land models:
  - Vacant Residential Land
  - Commercial Land
- Multiplicative MRA
- Areas with lack of vacant land sales are difficult to value

# Commercial Valuation Methods

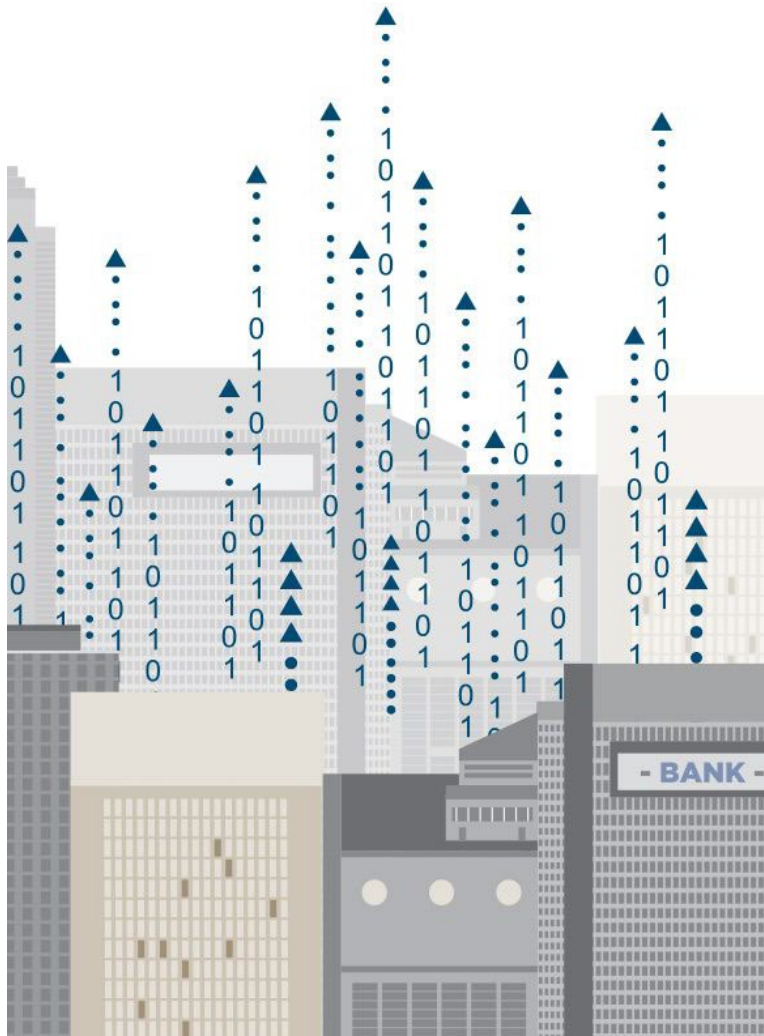
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- Over time, commercial models have been introduced
- Depends on volume of properties and availability of market data (sales or income)
- Currently some property types are modeled, others are cost approach
- Modeling Apartments, Small Offices, Commercial Condos, Warehouse/Industrial
- Remaining properties are valued on cost with land value coming from commercial land model

# Data

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- Sales from 2007 thru 2018 provided
  - Typically, more than 10,000 recorded sales per month
- Corresponds to Population Data for TY2009 thru TY2020
  - Parcel growth from 1,543,837 (TY2009) to 1,615,486 (TY2020)
- Improvements to data quality over time
  - Location data introduced with modeling
  - Desktop Review (TY2016-present)



# Types of Data

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- 111 variables provided for improved parcels, 63 for vacant land
- Not all variables are used for value calculation, but all are relevant to the assessment process in some way
- Improvement: size, year built, quality class, bathrooms, parking, pools, miscellaneous structures
- Land/ Location: land size, market, neighborhood, arterial, golf, greenbelt
- Market: sale price, sale date, deed type



INTRODUCING MODELS IN A  
LARGE JURISDICTION TAKES  
TIME



DATA QUALITY HAS IMPROVED  
OVER TIME, PARTICULARLY  
WITH DESKTOP REVIEW



IMPROVED DATA QUALITY  
ENHANCES ABILITY TO  
PRODUCE BETTER MODELS



STILL PROGRESS TO BE MADE  
WITH VALUING LAND

# Conclusions