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OF LAND POLICY

Comparative Measures of Property Tax Equity in Suffolk County, Massachusetts

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Recent Academic Papers on Assessment Equity

- ✓ *Reassessing the Property Tax*, Christopher Berry, The University of Chicago Harris School of Public Policy and the College. 2021.
- ✓ *The Assessment Gap: Racial Inequalities in Property Taxation*. Carlos Avenancio-Leon, Indiana University Troup Howard, University of California, Berkeley. 2020.
- ✓ *Why are Residential Property Tax Rates Regressive?* Natee Amornsiripanitch, Federal Reserve Bank of Philadelphia, 2020

- All find significant levels of regressivity in assessments using national datasets

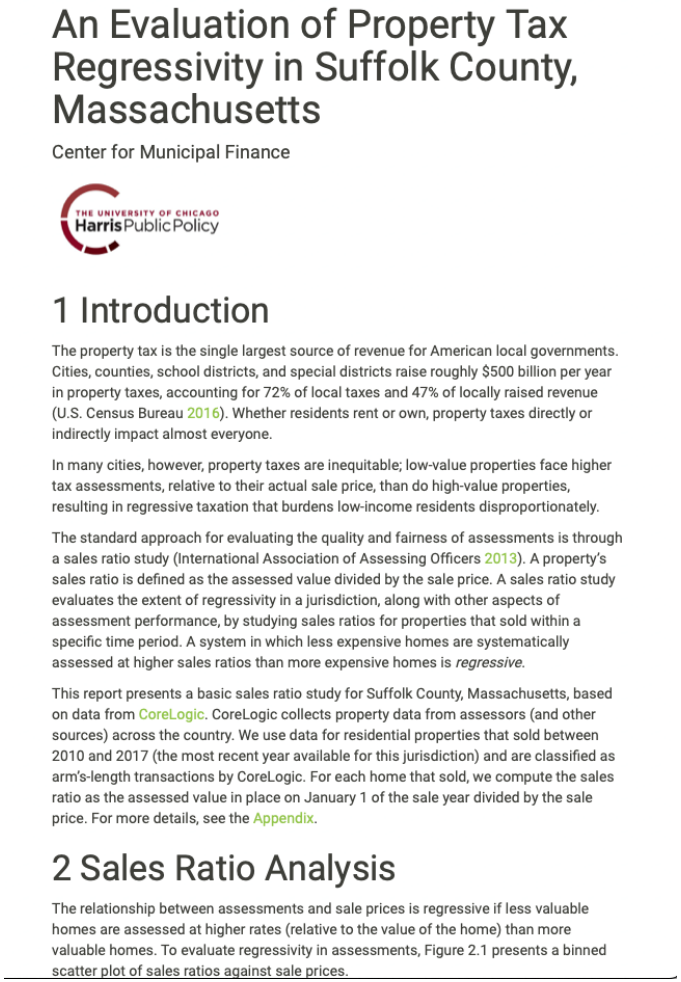
Focus on Berry (Harris School) Findings

- *"**I find pervasive regressivity in assessments**: lower-priced properties are assessed at a higher proportion of their sale prices than are higher-priced properties. As a result, **property tax bills**, as a share of property price, **are also regressive**."*

- *"**Assessment regressivity does not appear to result from explicit policy choices**, such as limits on assessment levels or growth, granting of appeals, or differential treatment of condominiums and single-family homes. **Rather, regressivity results in large part from data and modeling limitations in assessment.**"*

Suffolk County, MA Analysis

- National study analyzes 26 million sales from 2,600 US counties over the decade from 2007-2017
- Harris School also provides county level analysis as a standalone report on its *Property Tax Fairness* website
- A county level analysis provides an opportunity for a more in-depth review to better understand and clarify the Harris School study findings
- This presentation focuses on the Harris School analysis of Suffolk County, Massachusetts using **2017** sales.



An Evaluation of Property Tax Regressivity in Suffolk County, Massachusetts

Center for Municipal Finance

THE UNIVERSITY OF CHICAGO Harris Public Policy

1 Introduction

The property tax is the single largest source of revenue for American local governments. Cities, counties, school districts, and special districts raise roughly $500 billion per year in property taxes, accounting for 72% of local taxes and 47% of locally raised revenue (U.S. Census Bureau 2016). Whether residents rent or own, property taxes directly or indirectly impact almost everyone.

In many cities, however, property taxes are inequitable; low-value properties face higher tax assessments, relative to their actual sale price, than do high-value properties, resulting in regressive taxation that burdens low-income residents disproportionately.

The standard approach for evaluating the quality and fairness of assessments is through a sales ratio study (International Association of Assessing Officers 2013). A property's sales ratio is defined as the assessed value divided by the sale price. A sales ratio study evaluates the extent of regressivity in a jurisdiction, along with other aspects of assessment performance, by studying sales ratios for properties that sold within a specific time period. A system in which less expensive homes are systematically assessed at higher sales ratios than more expensive homes is *regressive*.

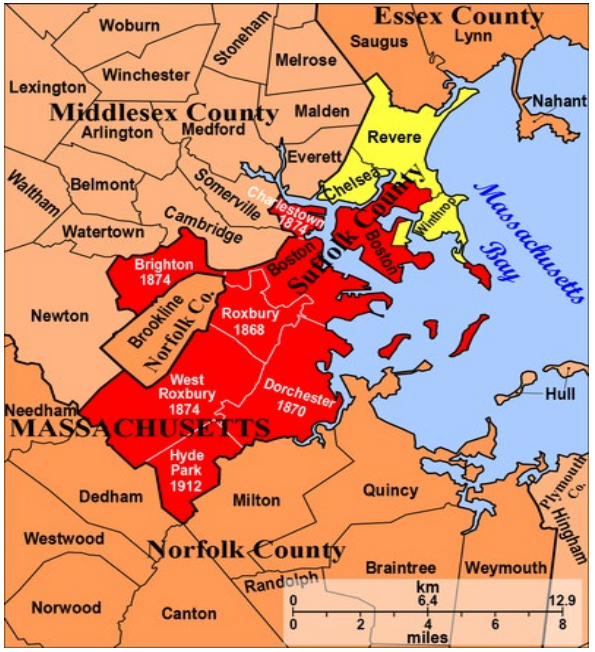
This report presents a basic sales ratio study for Suffolk County, Massachusetts, based on data from CoreLogic. CoreLogic collects property data from assessors (and other sources) across the country. We use data for residential properties that sold between 2010 and 2017 (the most recent year available for this jurisdiction) and are classified as arm's-length transactions by CoreLogic. For each home that sold, we compute the sales ratio as the assessed value in place on January 1 of the sale year divided by the sale price. For more details, see the Appendix.

2 Sales Ratio Analysis

The relationship between assessments and sale prices is regressive if less valuable homes are assessed at higher rates (relative to the value of the home) than more valuable homes. To evaluate regressivity in assessments, Figure 2.1 presents a binned scatter plot of sales ratios against sale prices.

Suffolk County, Massachusetts

- Suffolk County includes Boston, Chelsea, Revere and Winthrop
- Each community has its own assessing office that establishes assessed values, and the local governments set the tax rate and can implement various tax relief programs at local option
- Sales and assessment information for the comparative study came from the Massachusetts Department of Revenue, which makes data from each community's sales ratio studies available on its web site



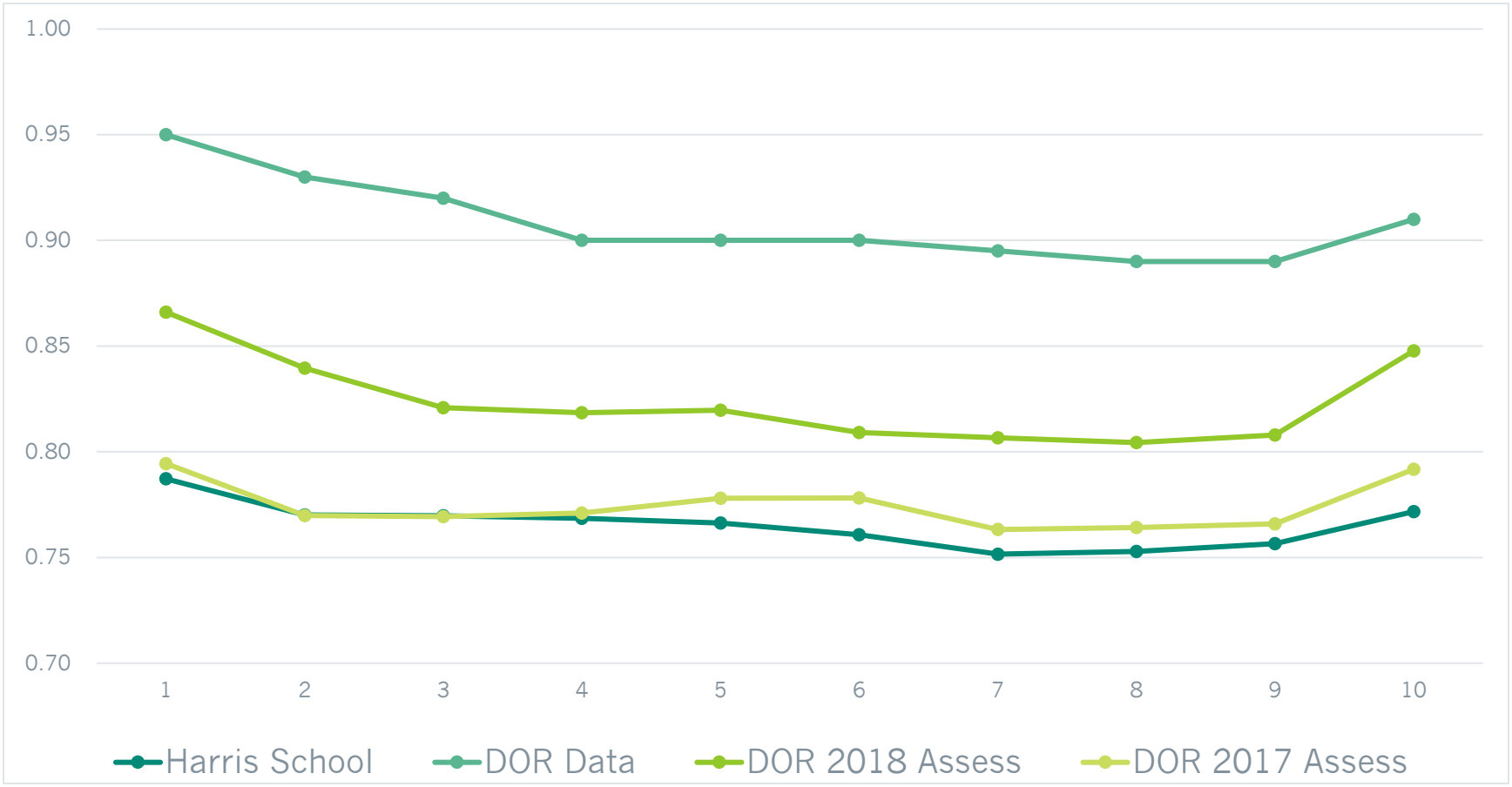
City	2017 Sales	%Total
Boston	6,157	86.2%
Chelsea	250	3.5%
Revere	500	7.0%
Winthrop	238	3.3%
Total	7,145	100.0%

Notes on DOR Dataset

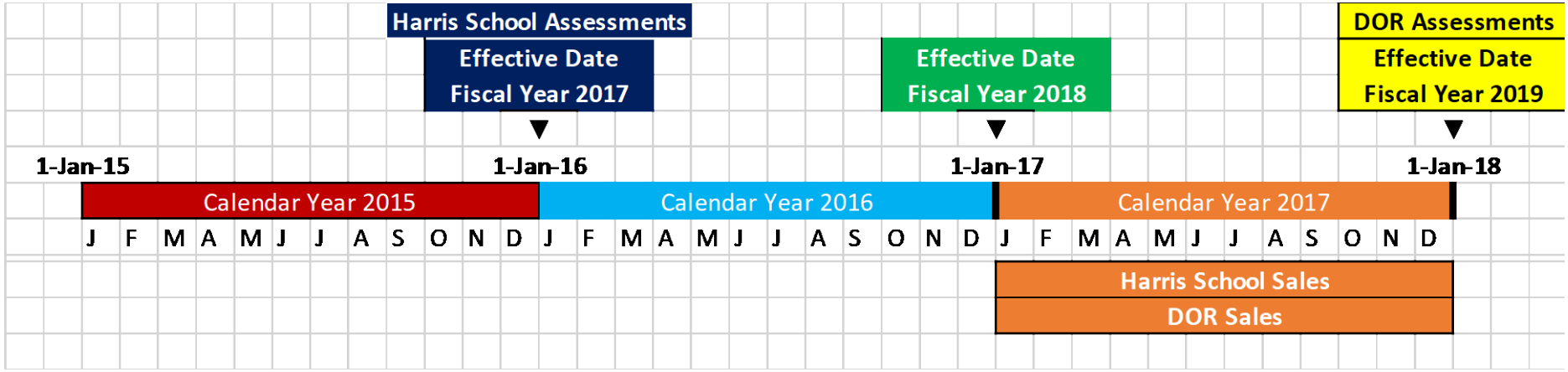
- **All** sales verified by the local assessor's office
  - Arms length sales are identified
  - Non arms length sales are identified and a reason for the exclusion required

    For example:
    - family or intra-corporate sale
    - sale includes personal property
    - sale of partial interest
    - sales from bankruptcy, court order
    - sale reflects zoning changes not included in current assessment
- State Department of Revenue audits sale file
  - Ensures all sales have been reviewed
  - Audits verification process and reviews excluded sales
  - Performs checks on sales chasing

Median ASR by Sale Price Decile



Timeline for Sales and Assessment Data



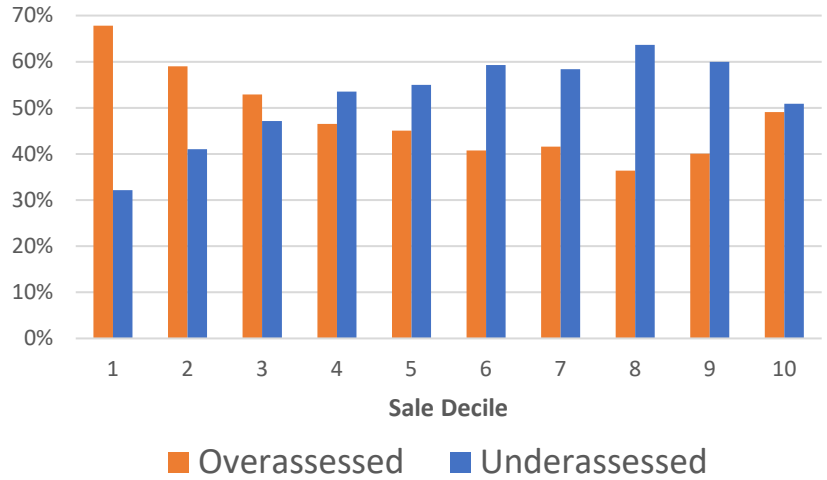
The Harris School study may have incorrectly assumed that fiscal year 2017 assessed values and calendar year 2017 sales represented the same period, when in fact there is a significant difference.

- Harris school sales range from *12 to 24 months* away from the effective date of Fiscal Year 2017.
- DOR sales range from *1 to 12 months* away from the effective date of Fiscal Year 2019.

Percent of Property Over/Under Assessed

Harris School

DOR Data



- Lower-priced properties are more likely to be overassessed than high-priced properties.

ASR Statistics from Harris School and DOR Data

	Median	COD	PRD	PRB
Harris School	0.77	12.24	1.014	0.012
DOR Data	0.91	8.10	1.007	-0.007

- Differences in **Median Ratio** and **COD** are driven by the use of prior year assessments by the Harris School
  - Comparing sales that took place well after the effective date of the assessed values – especially in an changing market – likely leads to greater variability in the COD.
  - The use of a lower ASR in the denominator of the COD calculation also contributes to a higher COD.

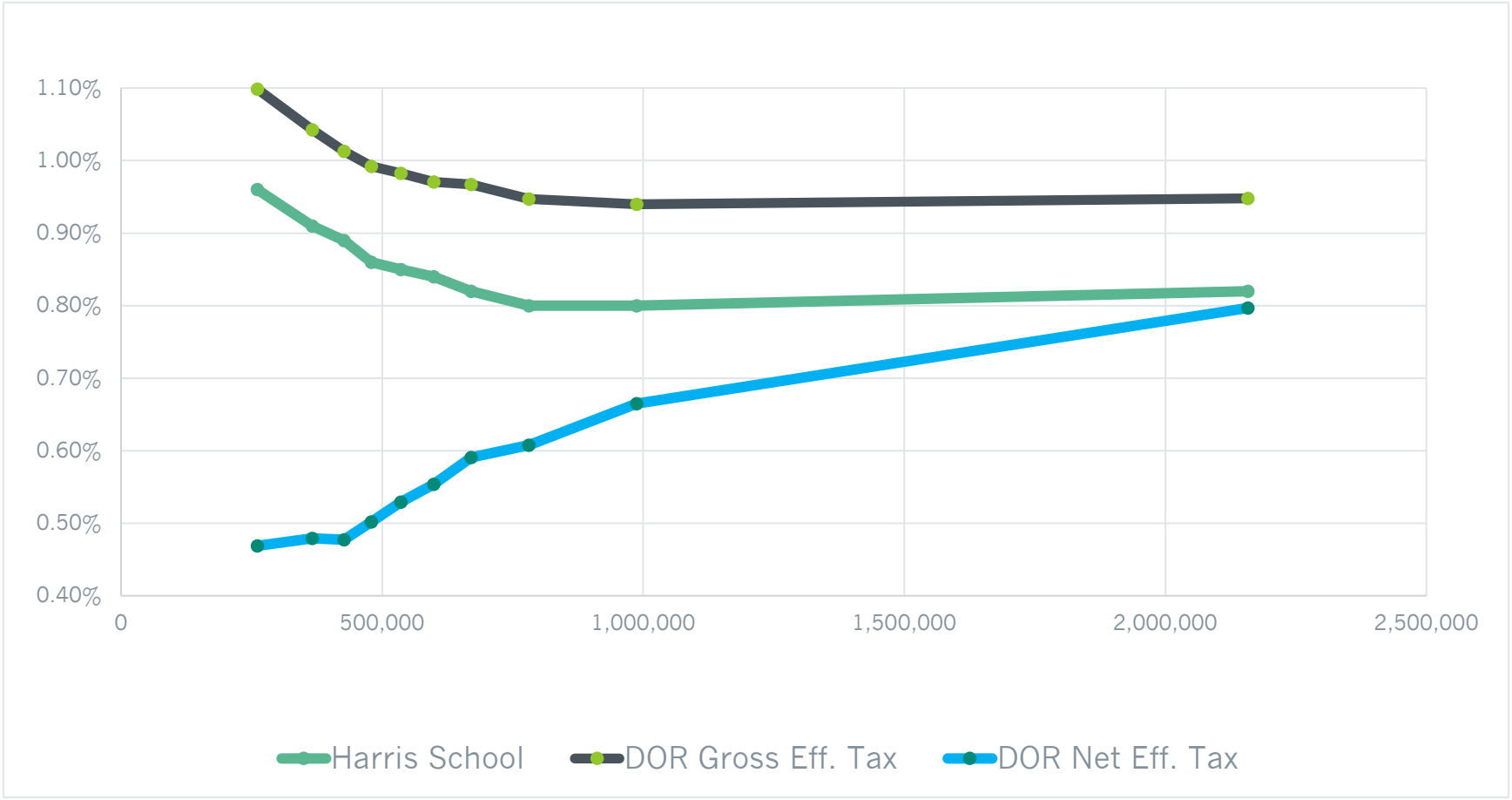
- **PRD** and **PRB** are similar and well within IAAO standards

Effective Tax Rate Analysis

- Effective tax rates are critical to this discussion on property taxes and regressivity
  - Assessments are only one component of the property tax calculation
  - An examination of the actual tax on the property, inclusive of any exemptions or credits, is required to determine if the *property tax* is regressive, progressive or neutral
- Harris School defines the effective tax rate as a **property's tax bill divided by its sale price.**
- The report states that the tax bill includes the impact of exemptions:

> *"Importantly, the effective tax rate is the actual tax rate paid inclusive of exemptions or other tax breaks."*

Effective Tax Rate Analysis



Effective Tax Rates

Decile	Harris School	DOR Data	
	Effective Tax Rate	Gross Tax Rate	Net Tax Rate
1	0.96%	1.10%	0.47%
2	0.91%	1.04%	0.48%
3	0.89%	1.01%	0.48%
4	0.86%	0.99%	0.50%
5	0.85%	0.98%	0.53%
6	0.84%	0.97%	0.55%
7	0.82%	0.97%	0.59%
8	0.80%	0.95%	0.61%
9	0.80%	0.94%	0.66%
10	0.82%	0.95%	0.80%

- The Harris School study clearly does not account for homestead exemptions, despite its statement to the contrary in the report text.
- This leads to an incorrect finding of a regressive pattern of effective tax rates, when in fact the effective tax rates in Suffolk County are significantly progressive.

Tax Shifts by Sale Price Decile

Harris School

Decile	Effective Tax Rate	Average Sale	Average Tax Bill	Fair Tax Bill	Average Shift
1	0.960%	253,090	2,424.82	2,165.21	**259.62**
2	0.910%	362,132	3,284.92	3,098.07	**186.85**
3	0.890%	423,713	3,752.85	3,624.90	**127.95**
4	0.860%	477,452	4,118.21	4,084.64	**33.56**
5	0.850%	536,955	4,552.28	4,593.69	**(41.42)**
6	0.840%	601,177	5,036.59	5,143.13	**(106.53)**
7	0.820%	676,836	5,545.08	5,790.40	**(245.32)**
8	0.800%	792,437	6,337.89	6,779.37	**(441.48)**
9	0.800%	1,001,580	8,049.47	8,568.61	**(519.14)**
10	0.820%	2,017,325	16,589.07	17,258.40	**(669.32)**

DOR Data

Decile	Effective Avg. Net Tax Rate	Average Sale	Average Tax Bill	Fair Tax Bill	Average Shift
1	0.469%	261,110	1,224.12	1,480.49	**(256.36)**
2	0.479%	366,403	1,756.10	2,077.50	**(321.39)**
3	0.477%	427,027	2,037.52	2,421.23	**(383.71)**
4	0.502%	479,610	2,406.85	2,719.37	**(312.52)**
5	0.529%	536,096	2,836.42	3,039.65	**(203.23)**
6	0.554%	599,014	3,317.46	3,396.39	**(78.93)**
7	0.591%	670,334	3,959.33	3,800.78	**158.56**
8	0.608%	781,013	4,745.82	4,428.32	**317.50**
9	0.665%	987,826	6,567.48	5,600.95	**966.53**
10	0.797%	2,158,177	17,196.06	12,236.81	**4,959.25**

- The DOR Data - which includes the impact of the homestead exemption - leads to a very progressive distribution of taxes, with higher-priced homes providing a subsidy to lower-priced homes

IAAO Sales Ratio Standard

- The Harris School study refers to the IAAO Standard on Sales Ratios several times. One of that standard's most important elements states:

  "The findings of a ratio study can only be as accurate as the data used in the study."

- Every state, county, township, city, and town may have separate:

  - ✓ assessment dates
  - ✓ assessment ratios
  - ✓ tax rate structures
  - ✓ exemption programs
  - ✓ overlapping taxing jurisdictions
  - ✓ Etc.

- Massive commercially available datasets and powerful analytic tools may obscure the difficulties of capturing these crucial complexities, impacting the validity of the findings.

Conclusions

- The Harris School study highlights important issues of property tax equity that warrant further study, however.....
- The Suffolk County study shows the difficulty of performing a complex sales ratio analysis on a national level.
  - The median ASRs in the Harris School study likely used assessed values that were based on real estate market conditions that existed between 12 - 24 months earlier than the sales, which impact their relevance.
  - The failure to account for homestead exemptions in the Suffolk County analysis led to a finding of regressivity in effective tax rates when in fact the actual distribution is significantly progressive.

Conclusions (continued)

- Overall, the assessed values in Suffolk County demonstrate good performance with respect to assessment levels, consistency, and both horizontal and vertical equity and are well within industry standards.
- Nevertheless, many of the trends identified by the Harris School study are supported by the DOR data.
  - Both the Harris School and DOR analysis find that lower-valued properties have slightly elevated ASRs when compared to higher-valued properties - an issue that warrants further study and review of:
    - ✓ Valuation approaches
    - ✓ Assessment data.
  - **If** lower-valued properties present special valuation challenges that are inherent to real estate markets, properly structured and targeted exemption program can redress this imbalance and result in a property tax that is highly progressive.

Further Reading

- Comparative Measures of Property Tax Equity in Suffolk County, Massachusetts.
- How Homestead Exemptions Can Counteract Regressivity in Property Tax Assessments.
- IAAO Standard on Ratio Studies
- Lincoln Institute Vertical Equity App

Question to the Group

Given the complexity embedded in the property tax system across jurisdictions – different taxing authorities and rates, exemptions program, credits, classification systems, etc. – is it possible to determine whether regressivity exists in the **property tax** using a national dataset?

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