BIAS IN PROPERTY ASSESSMENTS: SOURCES & SOLUTIONS

CENTER FOR PROPERTY TAX REFORM

A REPORT BY
THE CENTER FOR PROPERTY
TAX REFORM

A PRACTITIONER'S HANDBOOK

WHAT'S INSIDE?

Familiar, dependable, and largely viewed as equitable, property taxes form the backbone of most municipal budgets. Yet in recent years, stories of how improperly conceived or executed property tax systems adversely affect low income and minority communities have become all too familiar.

Some of America's most iconic cities (think Chicago and Detroit) and even entire states (we're looking at you, Delaware) have made headlines for their inequitable property tax systems, and a particular (statistics-heavy) strain of academic literature has taken shape to interrogate both the outlines and the substance of this troubling phenomenon.

This handbook was written to fill a particular void: the space between the news headlines and the academic journal articles. Why? Because this "in between" space is occupied by the people tasked with detecting and addressing bias to ensure an equitable and fiscally sound tax structure.

This handbook contains information collected from popular and peer-reviewed literature, as well as from original, one-on-one interviews with property assessors whose jurisdictions are leading the way in identifying and remedying sources of bias in their assessments. In it, we seek to provide clear cut explanations of where bias in property assessments originates and offer real world solutions to counter it.

Designed for policy makers and practitioners, this handbook explains how biased assessments happen and provides concrete solutions to increase equity.

A Note on Terminology: We use a variety of terms - including non-white, minority, and BIPOC - to refer to taxpayers who may experience bias based on personal characteristics other than economic status. We have taken this approach so as to be as inclusive as possible and in recognition of the fact that, at the writing of this document, there is no single, universally accepted term for these populations.

WHAT DO WE MEAN BY "BIAS?"

bi·as /ˈ bīəs/ noun
prejudice in favor of or against one thing, person, or group compared with another, usually in a way considered to be unfair

- Oxford English Dictionary

2x

the difference in effective property tax rates levied on homes in the bottom 10% of property values as compared to those in the top 10%*

+10-13%

the difference between the property tax burden of Black and Hispanic residents as compared to their white counterparts in the same tax jurisdiction**

STUDIES TO CHECK OUT

Research into the inequities of the nation's property tax system is ongoing and the results are truly eye opening. A full list of additional resources are included in the Appendix.

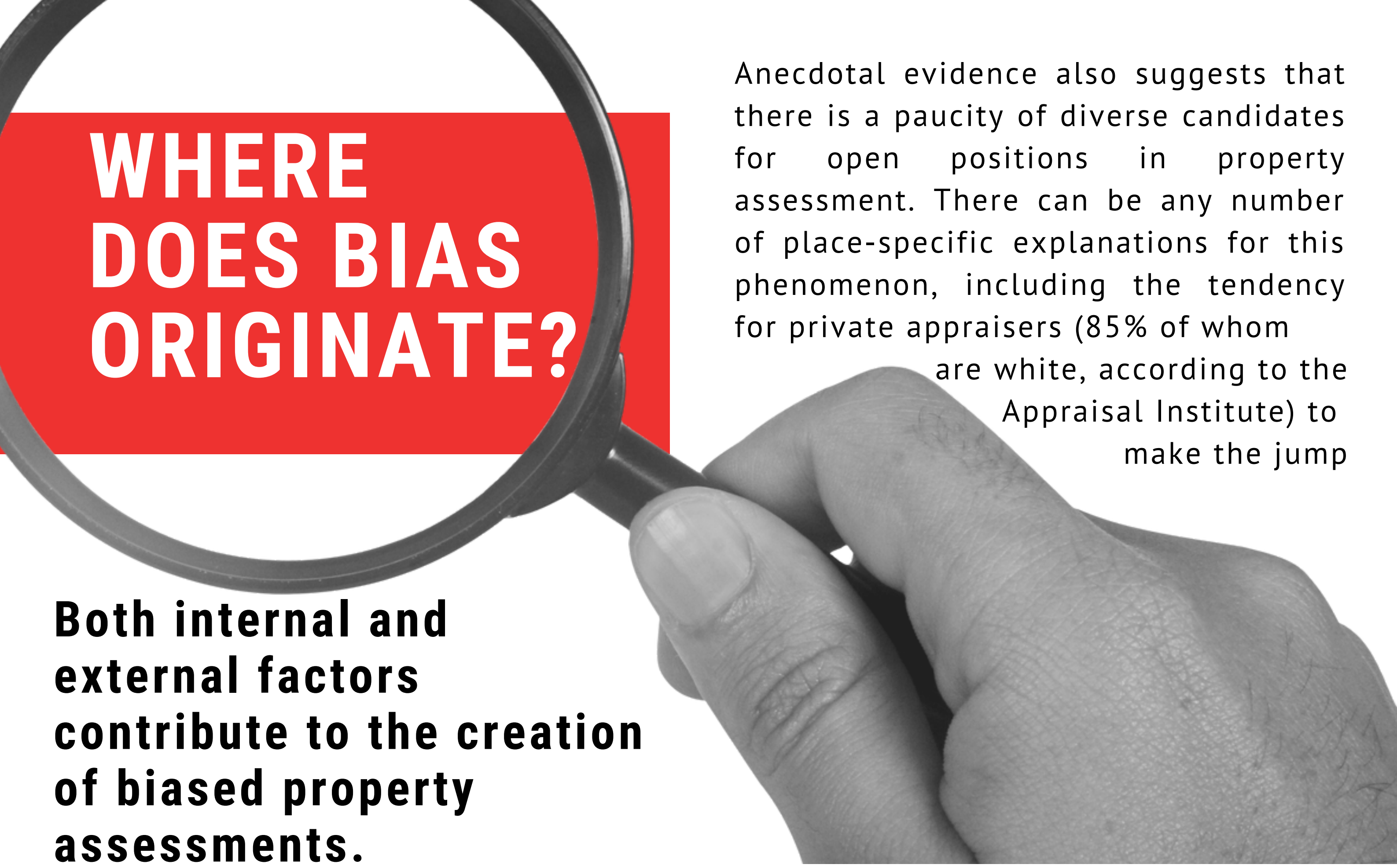
**Avenancio-Leon, Carlos and Howard, Troup, The Assessment Gap: Racial Inequalities in Property Taxation (June 1, 2020). Available at: https://ideas.repec.org/p/fip/fedmoi/88341.html#download

Atuahene, Bernadette, and Berry, Christopher. "Taxed out: Illegal Property Tax Assessments and the Epidemic of Tax Foreclosures in Detroit." UC Irvine Law Review, vol. 9, no. 4, May 2019, p. 847-886. HeinOnline.

Berry, Christopher R., Reassessing the Property Tax (March 9, 2021). Available at: https://ssrn.com/abstract=3800536 or http://dx.doi.org/10.2139/ssrn.3800536

Rearich, Jennifer. “Garbage In, Garbage Out: Implications of Data Quality for Valuation Models.” Journal of Property Tax Assessment & Administration, vol. 18, no. 1, 2021, pp. 5–28., Available at: https://researchexchange.iaao.org/conference/IAAO2019/schedule/113/

*The Editorial Board. “How Lower-Income Americans Get Cheated on Property Taxes.” The New York Times, The New York Times, 3 Apr. 2021, https://www.nytimes.com/2021/04/03/opinion/sunday/property-taxes-housing-assessment-inequality.html.



WHERE DOES BIAS ORIGINATE?

Both internal and external factors contribute to the creation of biased property assessments.

Internal Sources of Bias: For the purpose of this report, we consider "internal sources" of bias to be those under the control of the property assessment office.

Lack of Staff Diversity: Although statistical studies are lacking, discussions among assessing professionals suggest that assessment offices are often fairly homogenous, consisting largely of older white men. To the extent that accurate assessments rely on an intimate understanding of *every* community and neighborhood within a taxing jurisdiction, such a uniform perspective means that more diverse areas may not be as familiar to the people valuing them as their majority white counterparts, creating opportunities for personal bias to creep in.

Undiversified Recruitment Pipelines: Anecdotal evidence also suggests that there is a paucity of diverse candidates for open positions in property assessment. There can be any number of place-specific explanations for this phenomenon, including the tendency for private appraisers (85% of whom are white, according to the Appraisal Institute) to make the jump into public service; the influence of unions, whose well-defined hierarchies can reinforce the status quo; assessment offices' reliance on professional accreditation as a hiring requirement; and even a lack of overall diversity in a jurisdiction's population, can result in an overly homogenous talent pool.

Infrequent Assessment Cycles: Whether as a result of staffing and resource shortages, or because of compliance with externally mandated assessment cycles, one of the largest drivers of bias in property assessments is time. Simply put, the more time passes between assessments, the greater the divergence is likely to grow between actual and assessed values.

At first blush, this might seem to affect all tax payers equally, but research has shown that majority minority and low income areas are more negatively impacted (meaning they pay proportionately more of their resources in property taxes) than white and high income areas as the time between reassessment cycles grows.

Poor Data Collection & Quality Control: Even the most sophisticated CAMA models are only as good as the data in them. Something as basic as naming conventions and data entry standards, especially in jurisdictions where assessors' areas of responsibility are geographically defined, can produce biased assessment numbers when they yield inconsistencies or inaccuracies in the underlying data.

Improperly Designed Checks and Balances: Tests to detect biased assessments must be properly specified and run on a regular basis. Choosing the wrong analytical techniques or going too long between checks can allow bias to go undetected and uncorrected.

Appeals: Appeals are a double-edged sword when it comes to equity in property assessments. The intent of the appeals process is to enable tax payers to challenge what they view as unfair assessments, fostering an environment of transparency and accountability within an assessor's office. Unfortunately, the benefits of the appeals process do not always accrue evenly to all community members. Research shows that minority homeowners are less likely to appeal their assessments than are white owners, less likely to be successful in the appeals they do pursue, and when successful, tend to receive a smaller reduction in assessed value than their non-minority counterparts. Couple these findings with one of the principle realities of local public finance, namely that the need for tax revenues does not diminish simply because some tax payers have successfully reduced their own bills, and it's not hard to see how property tax appeals can put increased fiscal pressure on low income and BIPOC communities.

Staffing and Resource Limitations: While large jurisdictions can afford to commit significant staffing and technological resources to assessing the values of the properties within their boundaries, many smaller locales cannot. In less well-resourced offices, assessors may be employed on a part-time basis and/or receive very little compensation for their efforts. Given the highly complex, time-intensive, and technical nature of the assessment process, producing reliable, equitable data in a "small shop" environment can be a challenge.

External Sources of Bias: By definition, external sources of bias are those that originate *outside* the assessor's office and locus of control.

Rapid Changes in Property Values: Whether sellers are receiving multiple offers in a "hot" neighborhood or unexpectedly find themselves upside down in a mortgage and trying desperately to get out, rapid changes in property values can easily confound efforts to create accurate values. Why? Because whether values are determined through modeling or in-person assessments, keeping up with market value (the gold standard and most often relied upon assessment goal) is difficult, if not impossible, when real estate prices are unpredictable.

Similar to infrequent assessment cycles, it seems logical to assume that all tax payers would be affected by this failure to keep up with the market equally. Research shows, however, that Black and Hispanic homeowners, as well as owners of lower value properties, end up subsidizing the tax bills of more affluent whites when the market is hot, and are not any better off than them when it's suddenly not.

Predatory Appeals Filings: In some places, property tax appeals have become a bit of a cottage industry for legal professionals seeking to expand their client base. Using data on recent sales, these individuals reach out to new owners with an offer they can't refuse: let us appeal your assessment and you only pay if we get you a discount. Attorneys pursuing this angle typically focus on high value sales to get the most "bang for their buck." To the extent that their appeals are successful, they can further increase the tax burden on lower income and minority owners, as discussed in a previous section. In large jurisdictions, they may go a step farther, creating "mass filings" where large numbers of appeals are made simultaneously, putting incredible pressure on assessors to respond to their inquiries and diverting precious staff resources from other tasks in the process.

WHAT ABOUT TAX CAPS?

While not a source of *assessment bias* per se, some jurisdictions, such as New York and California, have policies limiting the allowable increases in property tax bills over time, irrespective of market behaviors.

Intended to safeguard against financial shocks resulting from increases in the value of real estate (an illiquid asset from which owners derive no financial gain prior to point of sale), these policies have a distorting effect that can create bias in the distribution of tax bills, even when the underlying assessments are equitable.

Modeling Errors: Many assessors rely on commercially produced CAMA software to support their valuations. It's natural to assume that a dispassionate, objective model will yield unbiased numbers, but studies show that for majority-Black neighborhoods, the opposite is often true, leaving those residents bearing a proportionately greater tax burden than their white counterparts. Why is this?

Three primary factors often come into play:
1) CAMAs rely on comparable sales to impute values, but properties that are identical "on paper" don't necessarily command the same selling price in real life. If, as is often the case, otherwise similar properties sell for less in a majority-Black neighborhood than a majority-White one, but a CAMA uses a mix of comparable sales from both, the Black owners will receive artificially high tax bills and White owners will receive unfairly low ones. If distressed sales, which are more common in non-white neighborhoods, are included in a CAMA they can exacerbate this computational error while simultaneously driving down the actual market values in their vicinity - a lose-lose for the negatively affected property owners.
2) Majority-Black urban neighborhoods are more likely to experience gentrification, and as many CAMA models rely on (at least somewhat) dated public data, they will fail to keep pace with actual increases in value, effectively providing a tax break to the newcomers driving the gentrification process.
3) A lack of customization can also yield biased CAMA outputs. Off-the-shelf systems offer undeniable benefits to assessors with limited resources, but many were created with assumptions appropriate for suburban or rural contexts and may not yield reliable results when applied in more urban settings.

<u>Tax Payer Behaviors:</u> As previously mentioned, minority property owners are less likely to appeal an assessment and often do not fair as well as their white counterparts when they do appeal.

There are a number of possible explanations for this phenomenon, including differing levels of understanding of the assessment process, differing levels of trust in the system and the people whose job it is to run that system, differing abilities to engage due to variations in resources, and more.

Regardless the explanation, the reality is that richer, white property owners are able to more successfully navigate the tax system than are less wealthy, nonwhites.

<u>Nondisclosure Laws:</u> Assessors overwhelmingly agree that market values are the gold standard - the closer assessments come to matching the prices buyers are willing to pay for parcels, the better.

Understanding with certainty when this gold standard has been met, however, is simply not possible for assessors in about a quarter of the United States. Why? Because nondisclosure laws prevent them from ever seeing property sales information for their jurisdictions, making the direct incorporation of these data into their determinations impossible.

HOW CAN YOU ELIMINATE BIAS?

Like the sources of bias, strategies to increase assessment equity can come from inside and outside the assessor's office.

INTERNAL SOLUTION # 1: THE SECRET IS IN THE STAFFING

<u>Diversify the Office, Especially the Leadership:</u> Property assessing is part science, part art. To the extent that personal opinions and experiences manifest in valuations, it is critical that a diversity of perspectives is incorporated into the process, thereby reducing the likelihood that a single, potentially biased worldview can dominate and affect assessments.

Diversity among a team's leadership is especially important in ensuring that all vantage points are heard and incorporated. And relying on a diverse team of interviewers helps bring a greater variety of questions and vantage points to the hiring process, helping surface considerations that might be missed or glossed over by a more homogenous decision making process.

<u>Pool Assessing Resources:</u> Many jurisdictions lack sufficient resources to support the staffing and technological needs of their assessing operations. Pooling resources among smaller jurisdictions, or between offices or agencies with similar needs (in, for example, data management, public outreach, or tax knowledge) can help address these shortfalls.

<u>Create Connections to Higher Ed:</u> Lack of diversity and skilled candidates in the hiring pipeline can make tackling equity in property assessments quite challenging. Creating connections to institutions of higher education - particularly community colleges and historically black colleges and universities - can go a long way towards addressing these pipeline issues.

As assessors often say, theirs is an "accidental profession," which few envisioned as their destination when they set out on their career paths. Steps like offering guest lectures in courses on urban planning, public policy, and even statistics can help raise awareness of all that property assessing entails among potential new hires. The creation of internship and work study programs is an even more direct way to bring new talent to the team.

Seek Statisticians: Many of the most reliable tests for bias require relatively advanced statistical knowledge to apply. Including this skill among the hiring criteria can help ensure an assessor's office has the ability to detect and address sources of bias effectively.

INTERNAL SOLUTION # 2: THE DEVIL IS IN THE DATA

Minimize the Influence of Opinions and Assumptions: The lay public may believe that the correct valuations for every property are "out there" and the assessor's job is simply to find and record them. But reality is far more complex, and even the most well-resourced professionals can find themselves relying to some extent on their personal knowledge of their communities in determining property values. The key, however, is to recognize where objective facts end and assumptions begin, and work to ensure that the latter is not (unintentionally) introducing bias into the final numbers.

Create a Quality Assurance Group: Designate a team of staff to audit data for bias. In small jurisdictions, consider sharing this resource across multiple offices with data-intensive functions.

Standardize Practices: In offices with multiple assessors, ensure that everyone is following the same procedures and using the same nomenclature. This can be done through the creation of data collection manuals and its efficacy ensured by regular staff audits of the assessment data to check for consistency.

TIPS FROM THE ASSESSOR'S OFFICE...

DIVERSIFY STAFFING TO ADDRESS BIAS

If a diverse candidate pool is not available locally, consider recruiting from other locales.

Consider reducing the importance of hiring criteria such as accredidation, which can limit nontraditional candidates' chances of success and can always be attained on the job.

If civil service exams are mandatory, see if they can be delayed until a predetermined time *after* conditional employment, giving nontraditional employees time to learn on the job.

Make the commitment to diversity ongoing. This means providing appropriate support to nontraditional hires as they transition into new roles and continually taking steps to reinforce and elevate the importance of an inclusive office environment.

Diversified staff means diversified perspectives. Ensure that everyone has a chance to contribute in ways that help make the final assessments equitable.

Reassess Regularly: Preventing bias starts with regular reassessments, because the more time passes between assessment cycles, the more likely market values are to have diverged from what's in the tax rolls. Regular reassessment is particularly important in "hot markets" where prices are changing rapidly, and even more so in jurisdictions with "hot neighborhoods," as these rapid, location-specific value increases have been found to be particularly prone to increase tax pressures on low income and minority residents.

GENTRIFICATION & DECLINE

Academic studies underscore the need to reassess regularly - preferably every 1-2 years - especially in volatile markets.

In municipalities with gentrifying neighborhoods, delays between assessments can create a dynamic in which long-time minority and low income residents effectively subsidize the newer, whiter homeowners. How? Because dated assessments don't capture the gentrification-induced value increases, upping the effective tax rate for those whose properties have not appreciated so dramatically. Conversely, residents of declining neighborhoods can be unfairly taxed based on dated assessments that overvalue their properties.

The Right Software is Key: The technological supports - including CAMA and GIS-based options - available to assessors are evolving rapidly. Picking the right match for the needs of a given jurisdiction is key, and paying particular attention to their built-in analytical capabilities is especially important to efforts aimed at detecting areas of regressivity in assessment distributions. The Price-Related Differential (PRD), Coefficient of Price-Related Bias (PRB), and Coefficient of Dispersion (COD) are already identified within the International Association of Assessing Officers (IAAO) standards as acceptable measures of uniformity, so these are the most likely to be available functions within off-the-shelf software options. Regression-based analyses offer distinct analytical advantages over these more standard measures, however, and programs that have these techniques "baked in" immediately up the statistical sophistication of even the smallest assessment operation.

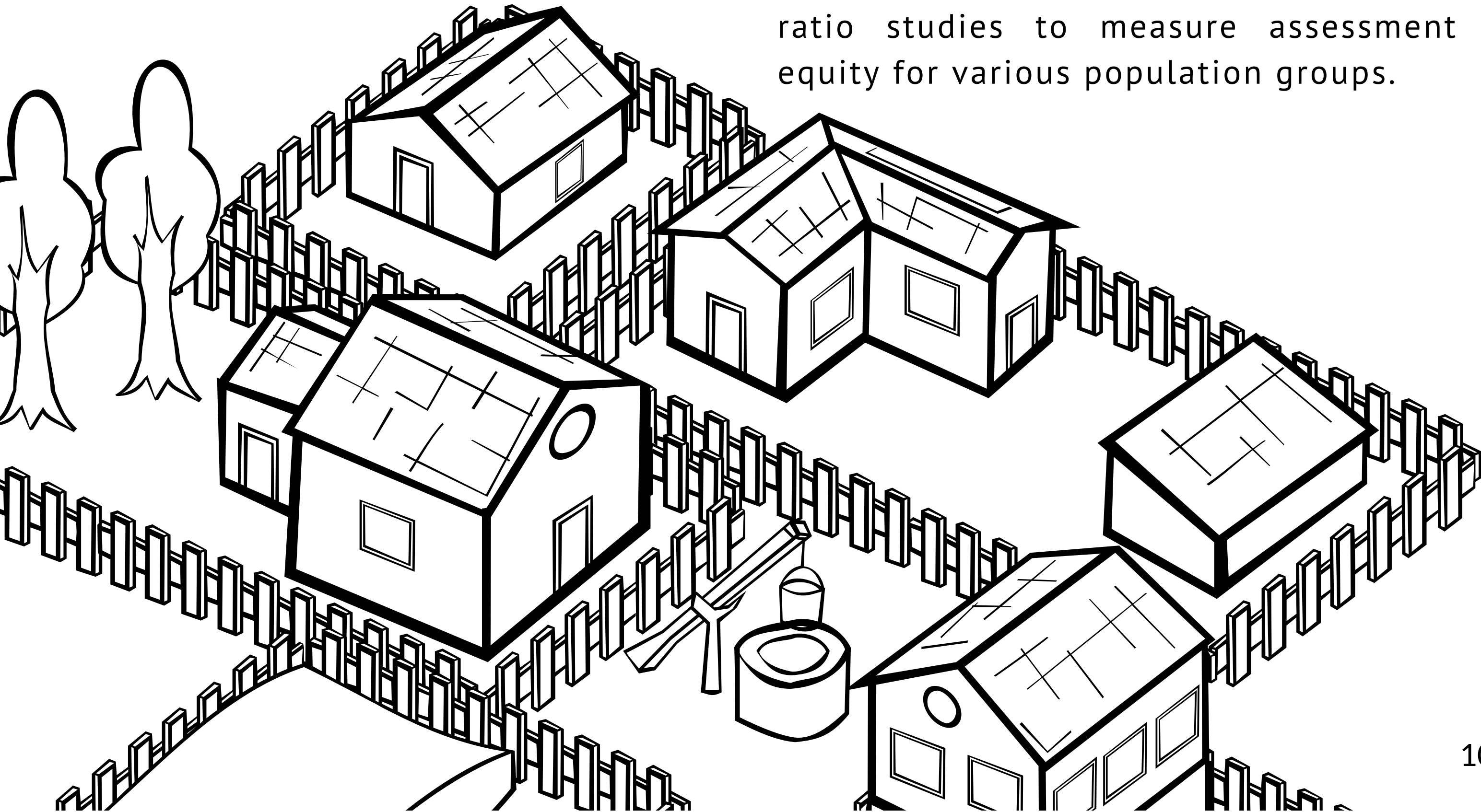
Incorporate Regression Techniques: More traditional tests, such as PRD, can mask regions of regressivity in assessment distributions. Statistical regressions, in contrast, allow analysts to identify these problem areas so they can be addressed. Of the available regression techniques, quantile and median regressions are preferred. Calculation of GINI coefficients is also a relatively straightforward, although less often applied in the property assessment context, approach that offers analysts an even more nuanced understanding of possible inequities in their data.

Analyze Data Continually Through a Variety of Lenses: Because property values are far from static, efforts to detect biased assessments must be ongoing. Frequent queries using as many metrics as possible (i.e. age, style, quality of structure, etc.) are one good way to find regressivity so that it can be addressed. Once steps have been taken to fix any problem assessments, analyses should be repeated to ensure the issues are resolved.

Consider the Impacts of Spatial Scale: Make sure that all parcels include spatial identifiers that can be used in tests of regressivity. Smaller scales - such as neighborhoods - are better than larger ones such as zip codes, which rarely align with the boundaries of the kinds of spatially distributed characteristics (such as housing type or age) that affect property values. GIS - which creates a value surface across which parcels are distributed - allows for even greater precision in discerning the effects of property's spatial characteristics than does analysis of even the most granular spreadsheet-based variables.

When considering scale, it's also important to recognize that neighborhood boundaries can change over time, particularly in gentrifying areas. Remaining aware of any such changes is critical in ensuring fair and accurate assessments over time.

Demographic Data May Matter: Research shows that certain demographic data can be used as (statistically defensible) representations of a number of often subtle or difficult to measure factors that affect local market prices when conducting tests for bias. The U.S. Census provides free, accurate, place-specific demographic data that can be combined with CAMA data to create ratio studies to measure assessment equity for various population groups.



INTERNAL SOLUTION #3: POLICIES TO REDUCE BIAS

Sometimes, it's not about what we do, but how we do it...

TRANSPARENCY

Make assessment methodologies available to the public so everyone understands where the valuations come from.

Provide current assessment data for download in a variety of formats and include all necessary metadata to facilitate external analyses.

TRANSPARENCY (CONT'D)

Create tools to allow individual property owners to understand how their assessments compare to others. This not only enhances trust, if coupled with some general guidelines about how to interpret the information, it can help limit the number of erroneous appeals.

IN-REACH

Ensure the assessor's website is up to date and includes: various contact options (i.e. phone, email, and chat function), information about appeals process, data downloads and visualization tools.

Monitor interactions with members of the public to ensure timely, accurate responses.

OUTREACH

Consider hosting in-person or virtual information sessions to help taxpayers understand the assessment process. Meeting people where they are - in churches, libraries, community centers, etc. - accompanied by a trusted member of the community can help bring much needed information to Populations that might not otherwise interact with the assessor's office.

DISCOURAGE MISUSE OF THE SYSTEM

If attorneys filling masses of appeals are a problem, consider implementing a fee for all appeals filed in this fashion which are denied. Fees for all denied appeals are not recommended as they may discourage low income property owners from exercising their right to appeal.

LEVEL THE PLAYINGFIELD

In instances where there is a significant number of appeals made through legal counsel, consider anonymizing the process so attorneys' reputations cannot influence the outcome.

CONCLUSIONS

The goal of all property assessors is to produce valuations that are fair and equitable. A number of factors - ranging from a lack of internal resources or varied perspectives, to rapidly changing markets, to legal limitations on their ability to access property sales information - can complicate even the most sincere efforts to realize this noble pursuit.

This handbook is intended to provide a comprehensive overview of the internal and external drivers of bias in assessments, and to present a menu of solutions to address them. While no municipality may have the ability (or need) to implement all of the approaches presented here, embracing one or a few can yield greater fairness and equity in property taxation.

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The Center for Property Tax Reform (CPTR) is a joint effort of the Robert Schalkenbach Foundation and the Center for the Study of Economics. CPTR conducts original research into issues of property taxation, and provides customized consulting and quantitative analysis of community-specific tax data for elected officials, nonprofit organizations, and interested citizens. Through these efforts, we strive to increase transparency in taxation, and help local constituents gain a thorough, non-partisan understanding of their communities' resources, enabling them to embrace smarter tax policies and create fiscal environments with an emphasis on fairness and equity.

Visit us online at: **www.centerforpropertytaxreform.org**
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APPENDIX

ADDITIONAL RESOURCES ON EQUITY IN ASSESSMENTS

Atuahene, Bernadette, and Christopher Berry. "Taxed out: Illegal Property Tax Assessments and the Epidemic of Tax Foreclosures in Detroit." UC Irvine Law Review, vol. 9, no. 4, May 2019, p. 847-886. HeinOnline.

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