

## Assessment Tools and Techniques to Measure and Diagnose issues with Vertical Equity

This session will explore the concept of equity in property tax assessments, providing an overview of its historical development and the methodologies used to define and measure it within industry and academic contexts. The discussion will emphasize the challenges of achieving uniform and equitable property valuations, which are fundamental to fair taxation and public trust. Unfair and inaccurate assessments can lead to significant costs for governments, including legal challenges, revenue losses, and public dissatisfaction. Ensuring equitable assessments is thus not only a matter of fairness but also of fiscal responsibility.

The session will introduce two free web applications developed by the Lincoln Institute of Land Policy to support assessors and policymakers. The first tool, the Vertical Equity App, facilitates the evaluation of assessment uniformity by applying IAAO ratio study standards. It enables users to perform quality control analyses efficiently. The second application, which is still in development, uses Geographically Weighted Regression (GWR) to identify spatial patterns of inequity in assessments. By highlighting areas where discrepancies may exist, this tool provides insights that can guide targeted interventions.

These applications enhance the accuracy and fairness of property valuations while helping governments conduct mass valuations more efficiently and cost-effectively. By automating complex analyses and providing clear, actionable results, these tools reduce the time and resources required for thorough assessment reviews, enabling jurisdictions to allocate resources more effectively and avoid the costly consequences of inequitable assessments.



Ron Rakow

Fellow

Lincoln Institute of Land Policy

Ron Rakow is a Fellow at the Lincoln Institute of Land Policy in Cambridge, MA. He is also a Principal at Pleasant Lake Advisors, a property tax and municipal finance consulting practice. Prior to these roles, Ron was the Commissioner of the City of Boston Assessing Department, where he

served for over 25 years. He has previously served as the Chair of the Research Committee and the Property Tax Policy Task Force of the International Association of Assessing Officers (IAAO).



Paul Bidanset, Ph.D. Candidate

Mass Valuation Data Scientist and Researcher

Center for Appraisal Research Technology

Paul Bidanset is a mass valuation data scientist and researcher with experience building, testing, and implementing valuation models for assessment offices. He has most recently worked for the governments of Bulgaria, Moldova, Romania, Ukraine, Estonia, and the United Kingdom, as well as municipal taxing jurisdictions throughout the United States. Paul currently serves as an adjunct professor of economics at Regent University and leads the research nonprofit, the Center for Appraisal Research and Technology.