OFFICE OF THE
INSPECTOR GENERAL
DISTRICT OF COLUMBIA GOVERNMENT

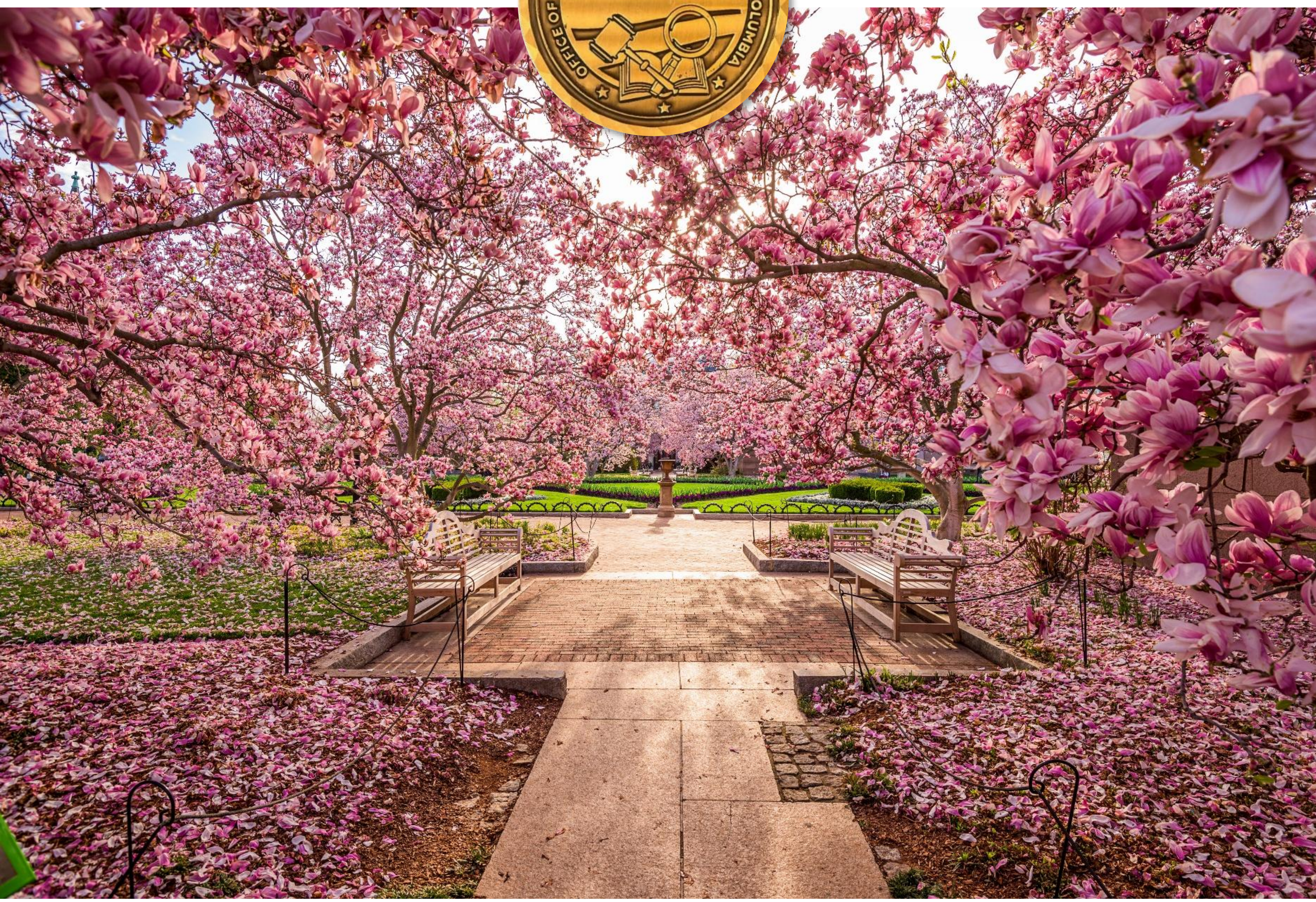
AUDIT REPORT

Commercial Real Property Assessment Process

Office of the Chief Financial Officer

OIG No. 25-1-14AT

July 31, 2026



MATTHEW WILCOXSON
INTERIM INSPECTOR GENERAL

OUR MISSION

We independently audit, inspect, and investigate matters pertaining to the District of Columbia government in order to:

- prevent and detect corruption, mismanagement, waste, fraud, and abuse;
- promote economy, efficiency, effectiveness, and accountability;
- inform stakeholders about issues relating to District programs and operations; and
- recommend and track the implementation of corrective actions.

OUR VISION

We strive to be a world-class Office of the Inspector General that is customer focused and sets the standard for oversight excellence!

OUR VALUES

Accountability: We recognize that our duty extends beyond oversight; it encompasses responsibility. By holding ourselves accountable, we ensure that every action we take contributes to the greater good of the District.

Continuous Improvement: We view challenges not as obstacles, but as opportunities for growth. Our commitment to continuous improvement drives us to evolve, adapt, and enhance our practices.

Excellence: Mediocrity has no place in our lexicon. We strive for excellence in every facet of our work.

Integrity: Our integrity is non-negotiable. We act with honesty, transparency, and unwavering ethics. Upholding the public's trust demands nothing less.

Professionalism: As stewards of oversight, we maintain the utmost professionalism. Our interactions, decisions, and conduct exemplify the dignity of our role.

Transparency: Sunlight is our ally. Transparency illuminates our processes, decisions, and outcomes. By sharing information openly, we empower stakeholders, promote understanding, and reinforce our commitment to accountability.

MEMORANDUM

To: Glen Lee
Chief Financial Officer

From: Matthew Wilcoxson *Matthew Wilcoxson*
Interim Inspector General

Date: July 31, 2026

Subject: **Commercial Real Property Assessment Process**
OIG No. 25-1-14AT

This memorandum transmits the final *Comprehensive Audit of OTR's Commercial Real Property Assessment Practices (FY22–FY24)*. In accordance with DC Code § 47-821(e)(1), the Office of the Inspector General (OIG) awarded and administered a contract with Crowe, LLP (Crowe) to conduct an independent audit of the District's management and valuation of commercial real property assessments.

Under its contract with the OIG, Crowe evaluated:

- the effectiveness of the Real Property Assessment Division's (RPAD) commercial assessment processes;
- the Office of Tax and Revenue's (OTR) organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff-development functions against objective criteria and benchmarking;
- OTR's hiring practices to determine whether human capital rules support OTR's ability to attract, develop, and retain a well-qualified workforce;
- the effectiveness and efficiency of OTR's commercial real property assessment functions;
- the roles and responsibilities of the OCFO's Office of Integrity and Oversight (OIO) and Criminal Investigation Division (CID) in bolstering the integrity of the District's tax system; and

- the status of prior recommendations issued in the OIG's 2016 and 2022 reports.

The final report includes eight findings and 32 recommendations to improve OTR's commercial real property assessment practices. During the engagement, Crowe provided the OCFO with all findings and recommendations for review and comment, and OCFO's written responses are incorporated into the final report.

We appreciate the cooperation and courtesies extended to OIG staff and Crowe throughout this audit. Should you have questions or concerns, please contact me or Richard Sahadeo, Supervisory Auditor, at richard.sahadeo@dc.gov.

Comprehensive Audit of OTR’s Commercial Real Property Assessment Practices (FY22–FY24)

Contract Number: CW128198
Prepared for: DC Office of the Inspector General
Prepared by: Crowe LLP

Smart decisions. Lasting value.™

July 31, 2026

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Executive Summary

Why We Conducted This Performance Audit

This audit was conducted pursuant to District of Columbia (D.C., District) Code § 47-821(e)–(f), which requires periodic independent evaluations of the District’s commercial real property assessment function and reporting related to commercial property valuation outcomes.[1] Commercial real property assessments represent a significant component of the District’s property tax base and are critical to generating revenue used to fund the operations and services of the DC government. Crowe conducted this audit on behalf of the Office of the Inspector General (OIG) to promote transparency, accountability, and effectiveness in the administration of the District’s commercial real property tax system. The audit was designed to assess the extent to which the Office of Tax and Revenue (OTR) and related oversight functions effectively administer, manage, and oversee the commercial assessment process, including assessment practices, organizational capacity, workforce management, and controls intended to support accurate, consistent, and defensible property valuations.

What We Found

Overall, Crowe observed that OTR has established processes, controls, and oversight mechanisms to support the administration of the District’s commercial real property assessment function. OTR maintains documented assessment procedures, conducts supervisory reviews of key valuation activities, performs annual ratio studies, and has implemented several corrective actions in response to prior audit recommendations. In addition, Crowe observed that oversight entities, including the Office of Integrity and Oversight (OIO) and the Office of the Chief Financial Officer (OCFO), maintain governance and monitoring activities intended to support accountability and operational effectiveness.

However, the audit identified opportunities to strengthen both assessment performance and workforce management practices. Crowe identified eight findings across the audit objectives, seven (7) of which were considered significant to the audit objectives. Of the eight findings, four (4) findings related to commercial assessment performance and ratio study results, including one (1) finding that was not considered significant to the audit objective, and four (4) findings related to workforce management, hiring practices, competency assurance, and succession planning.

We performed a ratio study to assist in our evaluation of the adequacy of the real property assessment practice outlined in Objective #1 The ratio study identified concerns regarding assessment equity and consistency across several commercial property portfolios. The audit also found that valuation processes did not consistently incorporate time-adjusted market analysis when using historical sales data during periods of changing market conditions. In addition, the audit identified workforce management and organizational sustainability risks. Specifically, OTR has not established formal workload management methodologies, centralized processes for monitoring workforce qualifications and training requirements, comprehensive workforce analytics to support hiring and retention decisions, or formal succession planning and knowledge transfer processes to address anticipated workforce transitions.

The audit did not identify reportable findings related to the oversight activities performed by OIO, OCFO, the Office of the DC Auditor, or the Criminal Investigation Division within the scope of our review.

[1] D.C. Council website, https://code.dccouncil.gov/us/dc/council/code/sections/47-821.

Status of Prior Recommendations

As part of our procedures, Crowe followed up on the status of 43 prior recommendations, 33 of which were from the OIG Project No. 22-1-25AT, an Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments, and 10 of which were from OIG Project No.16-1-14AT, an examination of the operating effectiveness of the District of Columbia' Real Property Tax Administration's internal controls over commercial real property assessments. The progress status for the remediation efforts are as follows:

1. 17 recommendations have been fully implemented and require no additional follow up.
2. 14 had actions taken but are still open or partially open.
3. 12 recommendations had no action taken and remain open.

The status of the prior findings and recommendations are included in Section V of this report.

What We Recommend

For detailed recommendations, please see the findings in the individual sections of the report as well as a summary of the prior recommendations status in Section V. Overall, Crowe recommends that OTR:

- Enhance commercial valuation methodologies and market analysis processes to improve assessment accuracy, equity, and consistency;
- Incorporate more robust market trend analysis and time-adjustment techniques into valuation and ratio study activities;
- Establish formal workload management and staffing analysis processes to support resource allocation and operational effectiveness;
- Implement centralized processes for monitoring workforce qualifications, training, and competency requirements;
- Develop workforce analytics capabilities to support recruitment, retention, and workforce planning decisions; and
- Establish formal succession planning and knowledge transfer processes to address long-term workforce sustainability risks.

Implementation of these recommendations will strengthen OTR's ability to administer equitable commercial property assessments, support compliance with recognized appraisal standards, improve workforce sustainability, and enhance the long-term effectiveness of the District's commercial real property assessment function.

Introduction

Background

The OTR is responsible for administering DC's tax laws and regulations and collecting revenue for the city. As our audit was focused on the commercial real property assessment function, not all divisions of the OTR were in scope for our audit. Crowe focused on the Real Property Tax Administration (RPTA), which is a division of the OTR that is responsible for property assessment, ownership and addresses changes, tax billings, tax relief program administration and land recordation for real property, and specifically the Real Property Assessment Division (RPAD), a division of the OTR that is responsible for valuing commercial real property for taxation.

In addition to evaluating RPAD's assessment operations, Crowe was charged with evaluating organizational and human capital functions related to the commercial real property assessment program. These objectives included assessing organizational structure, workload management, staffing levels, qualifications, training, staff development, recruitment and hiring practices, workforce planning, retention, succession planning, and other workforce management activities that support RPAD's ability to administer commercial property assessments effectively and sustainably.

Finally, Crowe was charged with assessing the effectiveness of oversight functions related to the commercial real property assessment process as part of Objectives 5 and 6 of the audit. Crowe identified the following entities and divisions as having oversight or governance responsibilities related to OTR's administration of the commercial real property assessment function:

- Office of Integrity and Oversight (OIO): A division of the OCFO that is responsible for promoting transparency, accountability, and effectiveness by evaluating internal controls, operational performance, and policy compliance.
- Audit and Criminal Investigation Division (CID): A division of the OTR that is responsible for investigating suspected fraud, abuse, and other criminal violations related to tax administration in DC. There are two subdivisions: Audit Division and the Criminal Investigation Division.
- Office of the Chief Financial Officer (OCFO): The OCFO is responsible for managing DC's financial operations. The OCFO's mission "is to enhance the fiscal and financial stability, accountability and integrity of the Government of the District of Columbia."[2]
- Office of the DC Auditor (ODCA): An independent agency of the District government responsible for conducting audits, studies, and analyses of District agencies and programs to improve accountability, transparency, and operational effectiveness.[3]
- District of Columbia Office of the Inspector General (DC OIG): An executive branch agency responsible for independently conducting audits, inspections and investigations to promote economy, efficiency, effectiveness, and accountability across the District of Columbia government.[4]

Crowe previously conducted an independent evaluation of OTR's commercial real property assessment function under OIG Project No. 22-1-25AT,[5] which covered Fiscal Years 2019 through 2021. That evaluation resulted in 43 recommendations intended to strengthen the effectiveness of the commercial

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[2] OCFO website, https://cfo.dc.gov/node/198592.
[3] DC Auditor website, https://dcauditor.org/about-odca/.
[4] OIG website, https://oig.dc.gov/about-oig.
[5] *Id.*, https://oig.dc.gov/sites/default/files/Reports/OIG%20Report%20No.%2022-1-25AT%20--%20Evaluation%20of%20the%20Management%20and%20Valuation%20of%20Commercial%20Real%20Property%20Assessments.pdf (OIG Project No. 22-1-25AT).

assessment program, including recommendations directed to the Real Property Assessment Division, the Office of the Chief Human Resources Officer (OCHRO), and unresolved recommendations carried forward from OIG Project No. 16-1-14AT.[6] The prior evaluation identified opportunities for improvement related to assessment operations, workforce management, and organizational oversight. The report and related recommendations are publicly available through the Office of the Inspector General's website at https://oig.dc.gov/.

Scope, Objectives, and Methodology

Scope and Objectives

We planned and performed the engagement in accordance with the *Generally Accepted Government Auditing Standards (GAGAS)* for Performance Audits. Our audit period covers fiscal years 2022 through 2024. The objectives of our engagement are as follows:

Objective 1: Evaluate the effectiveness of the Real Property Assessment Division (RPAD) assessment process. Based on the evaluation we will identify actionable recommendations to address any identified deficiencies or inefficiencies. Evaluate the adequacy of the commercial real property assessment process during FY 2022 – 2024 against an objective set of criteria such as the Uniform Standards of Professional Appraisal Practice (USPAP).
Objective 2: Evaluate OTR's organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff development functions against an objective set of criteria and benchmarking.
Objective 3: Examine OTR's hiring practices and determine whether human capital rules support the ability of OTR to attract, develop, and retain a well-qualified workforce.
Objective 4: Evaluate the effectiveness and efficiency of the commercial real property assessment functions within OTR.
Objective 5: Evaluate the OIO's role in overseeing OTR's commercial real property assessment practices to determine if they have achieved their primary responsibility to promote transparency, accountability, and effectiveness through the evaluation of internal controls, operational performance, and policy compliance.
Objective 6: Determine if the CID, responsible for investigating suspected fraud abuse and other criminal violations related to tax administration in DC, is detecting and responding to fraudulent behavior that may undermine the integrity of the District's tax system related to property assessments.

Methodology

In order to evaluate the objectives above, Crowe interviewed personnel from the Office of Tax and Revenue (OTR), the Real Property Tax Administration (RPTA), the Real Property Assessment Division (RPAD), the Office of Integrity and Oversight (OIO), the Criminal Investigation Division (CID), the Office of the Chief Financial Officer (OCFO), and other relevant stakeholders. Crowe reviewed policies, procedures, organizational structures, internal controls, workforce data, oversight reports, training materials, hiring practices, and operational documentation related to the commercial real property assessment process. Crowe also evaluated assessment operations, governance processes, oversight activities, and fraud investigation procedures against applicable professional standards and leading practices.

As part of the audit, Crowe analyzed staffing levels, workload distribution, compensation practices, recruitment and retention efforts, employee qualifications, and professional development activities associated with the commercial assessment function. Additionally, Crowe assessed the design and operating effectiveness of selected internal controls related to segregation of duties, supervisory review, documentation standards, fraud risk management, monitoring activities, and the use of information systems supporting assessment operations.

Crowe also performed analytical procedures and quantitative testing related to commercial property assessments, including a ratio study of assessment data for Fiscal Years 2022 through 2024. This work

[6] OIG website, https://oig.dc.gov/sites/default/files/Reports/OIG%20No.%2016-1-14AT%20OTR%20Evaluation%20Final%20Report-.pdf (OIG Project No. 16-1-14AT).

included obtaining and validating data, performing data cleaning and standardization procedures, calculating statistical metrics consistent with International Association of Assessing Officers (IAAO) guidance, and evaluating the uniformity and reliability of assessment outcomes.

Crowe evaluated the effectiveness of oversight activities performed by OIO and the investigative functions performed by CID related to fraud detection, case management, and enforcement activities associated with tax administration. Crowe also conducted follow-up procedures on recommendations issued in OIG Project No. 22-1-25AT to assess the status of corrective actions and determine whether previously identified deficiencies had been adequately addressed.

Detailed methodologies are described within the corresponding sections of this report.

Criteria

To evaluate the effectiveness of the District's commercial real property assessment function and related oversight activities, Crowe assessed OTR's policies, procedures, operations, and internal controls against applicable professional standards, federal internal control and human capital frameworks. The criteria used in this audit included:

- Uniform Standards of Professional Appraisal Practice (USPAP)
- International Association of Assessing Officers (IAAO)
- U.S. Government Accountability Office's (GAO) *Standards for Internal Control in the Federal Government* (Green Book)
- Relevant GAO human capital reports
- U.S. Office of Personnel Management's (OPM) Human Capital Framework (HCF).

An overall summary of each criterion is detailed as follows:

1. **Uniform Standards of Professional Appraisal Practice (USPAP)**

USPAP establishes nationally recognized ethical and performance standards for appraisal practice in the United States.[7] Developed by the Appraisal Standards Board (ASB) of The Appraisal Foundation, USPAP provides requirements for the development, reporting, and review of appraisal work to promote public trust and credibility in valuation activities. For purposes of this audit, Crowe evaluated OTR's commercial mass appraisal practices against relevant USPAP standards applicable to mass appraisal development and reporting, specifically Standards 5 and 6.[8]

2. **International Association of Assessing Officers (IAAO)**

The IAAO is a professional organization that develops standards and guidance intended to promote fair, accurate, and equitable property assessment and taxation practices.[9] Crowe used relevant IAAO standards and guidance to assess OTR's commercial assessment operations, oversight activities, data management, and workforce practices. Criteria relevant to this audit included standards related to:

- Automated Valuation Models (AVMs)
- Data Quality
- Mass Appraisal of Real Property
- Oversight Agency Responsibilities
- Professional Development
- Assessment Administration
- Ratio Studies

[7] UNIFORM STANDARDS OF PROF'L APPRAISAL PRACTICE, https://appraisalfoundation.org/pages/uspap (last visited July 13, 2026).
[8] APPRAISAL INSTITUTE, STANDARDS OF PROF'L PRACTICE, https://www.appraisalinstitute.org/insights-and-resources/resources/standards-of-professional-practice (last visited July 13, 2026).
[9] INT'L ASS'N OF ASSESSING OFFICERS, https://www.iaao.org/about/ (last visited July 13, 2026).

- Verification and Adjustment of Sales

These standards provided criteria for evaluating the consistency, reliability, documentation, governance, and quality-control processes supporting the District's commercial real property assessment program.

3. **Standards for Internal Control in the Federal Government (Green Book)**

Crowe also evaluated OTR's governance, risk management, and internal control activities against the GAO's *Standards for Internal Control in the Federal Government* (Green Book).[10] The Green Book establishes the framework for designing, implementing, and operating effective internal controls within government entities and is organized around five interrelated components: Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring.

Crowe considered all five components and the related 17 principles as relevant criteria for assessing OTR's oversight structure, accountability mechanisms, policies and procedures, fraud risk management, communication practices, monitoring activities, and processes for identifying and addressing control deficiencies.

4. **GAO Human Capital Reports**

Crowe also considered relevant human capital guidance and leading practices identified in reports issued by the U.S. Government Accountability Office (GAO).[11] These reports provided criteria for evaluating workforce planning, recruitment, retention, succession planning, employee development, and organizational capacity related to OTR's administration of the commercial real property assessment function.

5. **U.S. Office of Personnel Management (OPM)**

Crowe evaluated OTR's human capital management practices against relevant principles contained within the U.S. Office of Personnel Management's (OPM) Human Capital Framework (HCF).[12] The HCF establishes standards and leading practices for aligning workforce management with organizational mission and operational objectives. Areas relevant to this audit included workforce planning, recruitment and hiring, performance management, and learning and development. Crowe also considered applicable standards and guidance contained in OPM's HCF reference materials when assessing OTR's staffing practices, training programs, competency development, and workforce sustainability efforts.

Findings

As a result of our procedures, we noted the following findings, which are further discussed in the Findings and Recommendations section of the report.

Findings	Audit Objective Impacted
1. Commercial Property Portfolios Are Under-Assessed Relative to IAAO Standards	Objectives 1 and 4
2. Assessment Variability Exceeds IAAO Standards for Multiple Commercial Portfolios	Objectives 1 and 4
3. Assessment Levels Vary Significantly Across Commercial Property Types	Objectives 1 and 4
4. Valuation Models Do Not Consistently Incorporate Time-Adjusted Market Analysis	Objectives 1 and 4

[10] 2025 GAO Green Book.
[11] GAO website, https://www.gao.gov/human-capital-management (last visited July 13, 2026).
[12] OPM website, https://www.opm.gov/policy-data-oversight/human-capital-framework/ (last visited July 13, 2026).

Findings	Audit Objective Impacted
5. Staffing and Workload Misalignment Impacts Operational Effectiveness	Objective 2
6. Inadequate Credential Tracking and Training Governance Weakens Workforce Competency Assurance	Objective 2
7. OTR Lacks an Integrated Workforce Analytics Framework to Support Recruitment, Retention, and Workforce Planning Decisions	Objective 3
8. Lack of Succession Planning & Knowledge Transfer	Objective 3

Crowe LLP
Independent Member Crowe Global

Independent Auditor's Report

To District of Columbia Office of Inspector General

We have conducted a performance audit over the Office of Tax and Revenue's (OTR) management and valuation of commercial real property assessment for the period from October 1, 2021, through September 30, 2024 (Fiscal Years 2022 through 2024).

We have conducted our performance audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusion based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions based on our audit objectives.

Our audit was limited to the objectives identified on page 4 of this report. Management is responsible for the Office of Tax and Revenue's compliance with those requirements.

Solely to assist us in planning and performing our performance audit, we obtained an understanding of the internal controls of the Office of Tax and Revenue to determine the audit procedures that are appropriate for the purpose of providing a conclusion on OTR's compliance with the relevant requirements of the terms and conditions of the subcontract and regulatory requirements, as specified, but not for the purpose of expressing an opinion on the effectiveness of internal control. Accordingly, we do not express any assurance on internal control.

We noted three (3) deficiencies labelled as Finding #1, Finding #2, and Finding #3 related to Objectives 1 and 4, which are significant to the audit objective and one (1) deficiency labelled as Finding #4, which is not significant to the audit objective for fiscal years 2022 through 2024 listed on pages 11-15. Additionally, we noted two (2) deficiencies labelled as Finding #5 and Finding #6 related to Objective 2 that are significant to the audit objective for fiscal years 2022 through 2024 listed pages 20-25. Finally, we noted two (2) deficiencies labelled as Finding #7 and Finding #8 related to Objective #3 that are significant to the audit objectives for fiscal years 2022 through 2024 listed on pages 30-36.

OTR's response to the findings identified in our performance audit is included in the Audit Results section of this report. Their response was not subjected to the auditing procedures applied in this performance audit of the audit objectives and, accordingly, we express no conclusion on the responses.

Crowe LLP

Crowe LLP

Washington DC
July 28, 2026

Section I – Assessment Process

Objective

This section addresses Objectives 1 and 4 of the audit, which required an evaluation of the effectiveness, efficiency, and overall adequacy of OTR's commercial real property assessment function. The audit included an assessment of RPAD's valuation processes, internal controls, data management practices, quality assurance activities, and operational procedures to determine whether commercial property assessments were performed in a manner consistent with applicable professional standards and leading practices.

Methodology / Analysis Performed

To evaluate the effectiveness and efficiency of the Office of Tax and Revenue's (OTR) commercial real property assessment process, Crowe conducted a review of Real Property Assessment Division (RPAD) activities for fiscal years (FY) 2022 through 2024. The review assessed the adequacy of RPAD's commercial property assessment practices against applicable industry standards and leading practices, including the Uniform Standards of Professional Appraisal Practice (USPAP) and International Association of Assessing Officers (IAAO) standards.

Crowe's methodology included document review, stakeholder interviews, process walkthroughs, control evaluation, control effectiveness testing, and an independent ratio study.

Process Understanding and Documentation Review

Crowe obtained and reviewed policies, procedures, and supporting documentation governing commercial property assessment activities. Crowe also obtained information regarding systems used within RPAD, including the Computer-Assisted Mass Appraisal (CAMA) system and supporting analytical and reporting tools. Interviews were conducted with key stakeholders, including RPAD leadership, supervisory appraisers, appraisers, market analysts, and other personnel involved in the assessment process. Through these interviews and walkthroughs, Crowe gained an understanding of the end-to-end commercial property valuation process, including sales verification procedures, valuation updates, market rate development, ratio studies, and supervisory review activities.

Control Identification and Assessment

Based on the information obtained through document review and stakeholder interviews, Crowe identified and documented key controls and monitoring activities supporting the commercial assessment process. Crowe evaluated the significance of these controls relative to USPAP and IAAO standards, with particular emphasis on controls designed to promote valuation accuracy, consistency, data quality, oversight, and assessment equity.

Key processes and controls evaluated included:

- Supervisory review of sales verification determinations;
- Biannual supplemental assessment reviews;
- Annual valuation review procedures;
- Final valuation review and edit processes;
- Market rate development and approval procedures; and
- Annual ratio study activities.

Control Understanding and Limited Validation Procedures

Crowe performed limited procedures over selected controls to obtain an understanding of their design and implementation. These procedures were not intended to provide assurance over the operating effectiveness of controls throughout the audit period. Procedures consisted primarily of walkthroughs, inspection of policies and procedures, inquiries of responsible personnel, and inspection of selected documentation demonstrating that controls had been implemented. Where appropriate, Crowe reviewed a limited number of examples of control execution to corroborate information obtained during interviews and walkthroughs.

Control effectiveness testing was performed using nonstatistical (judgmental) sampling unless otherwise noted. Samples were selected based on the significance of the control, associated audit risk, frequency of the control activity, and the need to obtain coverage across commercial assessment units. For certain administrative controls, such as system access and documented policies, Crowe reviewed complete populations or complete sets of documentation. Because judgmental sampling was used, results are not intended to be projected to the entire population but were used to evaluate whether key controls were designed and operating as intended. The details of the controls tested can be found below:

Control Area	Population / Control Universe	Selection Method	Sample Size
Supervisory review of sales verification determinations	Sales verification approvals completed during the audit period	Judgmental selection from each commercial assessment unit	6
Supervisory review of supplemental assessments	Supplemental assessments completed during the audit period	Judgmental selection from each commercial assessment unit	6
Market rate development and approval	Annual market rate development package	Reviewed annual market rate package for the audit period	1 annual cycle
Final valuation review and edit process	Final valuation review documentation	Judgmental selection of annual review documentation	1 annual cycle
CAMA user permission groups	Active CAMA user permission groups	Reviewed the complete population of Active Directory group assignments to evaluate segregation of duties	Complete population
MITS user access review and approval	Monthly MITS Users-to-Roles reports	Reviewed the Users-to-Roles report immediately following FY2024 year-end and verified evidence of management approval. Also observed the monthly review process during a system walkthrough and inspected the governing policy.	1 monthly report; walkthrough of monthly process
Building permit data cleansing procedures	Building permit data cleansing procedures and guidance	Reviewed documented procedures and supporting documentation	Complete documentation
Exemption review procedures	Approved commercial exemption cases during the audit period	Judgmental selection of approved exemption cases	Selected cases
Commercial Unit A field inspection policy	Field inspection policy	Reviewed policy documentation	Complete policy
Commercial Unit A field inspection lists	Field inspection lists generated during the audit period	Reviewed a judgmentally selected inspection list	1 list

Testing procedures included inspection of relevant policies and procedures, system-generated reports, supervisory approvals, workflow records, user access reports, corrective action documentation, and other records supporting the execution of selected controls. Procedures also included inquiries of responsible personnel and walkthroughs of key processes to corroborate control implementation.

Benchmarking Against Industry Standards

Crowe evaluated RPAD's commercial assessment practices against relevant provisions of USPAP and IAAO standards, including standards related to mass appraisal development and reporting, data quality, sales verification, ratio studies, assessment administration, professional development, automated valuation models, and oversight responsibilities. Best practices identified from these standards were used to assess the adequacy of RPAD's control environment, operational processes, and quality assurance activities.

Independent Ratio Study

Crowe performed an independent ratio study to evaluate the accuracy, uniformity, and equity of commercial property assessments. Data utilized in the analysis included commercial property assessment records, sales transaction information, property characteristics, appeal-adjusted assessed values, sales qualification indicators, and related assessment data.

Crowe validated, reconciled, and consolidated the data received from RPAD before performing data quality and cleansing procedures. These procedures included evaluating records for completeness, identifying inconsistencies and duplicate transactions, reviewing sales qualification criteria, and removing outliers using established statistical methods consistent with IAAO guidance.

Using the resulting dataset, Crowe calculated key ratio study performance measures, including median assessment ratios, coefficient of dispersion (COD), price-related bias (PRB), and associated confidence intervals. Analyses were performed for the overall commercial assessment population and across selected stratifications, including property types, submarkets, and transaction characteristics.

Crowe evaluated the ratio study results against applicable IAAO performance standards as one source of audit evidence supporting the evaluation of commercial real property assessment practices. The results were considered in conjunction with other audit procedures to support the findings, conclusions, and recommendations presented in this report. Appendix A contains the detailed Ratio Study Report and supporting statistical analysis.

Findings

FINDING #1: Commercial Property Portfolios Are Under-Assessed Relative to IAAO Standards

Significant Deficiency in Objective #1 and #4

Condition: The ratio study determined that the Apartment, Industrial-Warehouse, Hospitality-Lodging, Special Purpose, and Office portfolios have median sales ratios below the International Association of Assessing Officers (IAAO) standard range of 90% to 110% for level of appraisal. The Industrial-Warehouse portfolio demonstrated the greatest deviation, with a median sales ratio of 55.3%. Although the overall commercial median sales ratio was approximately 90%, meeting the minimum IAAO standard, five of the six major commercial portfolios failed to meet the recommended level of assessment.

Criteria: IAAO Standard on Ratio Studies (2013) Section 9.1

"While the theoretically desired level of appraisal is 1.00, an appraisal level between 0.90 and 1.10 is considered acceptable for any class of property."

Cause: The ratio study identified several potential contributing factors, including limitations in property data quality, insufficient income and market data, challenges associated with rapidly changing market conditions, and valuation methodologies that may not fully capture market value for certain commercial property types.

Effect: Commercial properties within the affected portfolios may be assessed below market value, resulting in inequitable distribution of the property tax burden and reduced compliance with recognized assessment standards. The ratio study noted that the Industrial-Warehouse portfolio was particularly under-assessed relative to other property types. Persistent underassessment may contribute to increased appeals activity and reduced public confidence in the fairness of the assessment process.

Recommendation: We recommend that RPAD:

1. Perform a detailed analysis of portfolios that fall below IAAO level of assessment standards to identify drivers of underassessment;
2. Enhance collection and validation of market, sales, and income data used to support commercial valuations;
3. Review and refine valuation methodologies and assumptions for portfolios exhibiting the greatest deviation from market value; and
4. Monitor assessment levels throughout future revaluation cycles using ratio study results to identify and address emerging assessment inequities.

Management's Response: The Office of Tax and Revenue (OTR) disagrees with the audit's conclusions. This objection stems from a lack of access to the underlying analysis and assumptions used to reach the report's findings.

OTR believes the audit's low sales ratio conclusion is misleading. Particularly if the audit analysis applied an overly aggressive time adjustment that fails to consider critical, less obvious market forces. By analyzing only valid, traditional arm's-length sales in a vacuum, the audit overlooks severe turbulence in the commercial property market, most notably, a sharp spike in non-arm's-length distressed transactions, the widespread impact of refinancing rate shocks, and surging vacancy rates.

Notably, with regards to industrial-warehouse properties, this property class is a non-robust and nearly extinct segment of DC's commercial market. These assets typically represent properties in transition toward a different highest and best use (vacant and improved), consisting largely of speculative transactions on properties typically targeted for redevelopment.

Planned Corrective Action: To navigate these unprecedented market dynamics, OTR remains committed to enhancing its field inspections, sales verification protocols, and data validation procedures. These operational upgrades will ensure the agency proactively captures physical and market characteristic changes as they occur.

Target Completion Date: Both the sales verification questionnaire and check list will be finalized by December 31, 2026.

Auditor's Rebuttal: We acknowledge management's response and its commitment to strengthen field inspections, sales verification protocols, and data validation procedures. However, the ratio study controlled for speculative transactions and changes in property use by excluding sales identified as speculative and sales where the property use at the time of valuation differed from the use at the time of sale. The study's conclusions are also generally consistent with broader market trends indicating increased demand for warehouse properties following the COVID-19 pandemic. While we recognize management's experience and expertise regarding the local commercial real estate market, the ratio study results suggest that market conditions may not be uniform across all warehouse properties and may warrant additional market segmentation and analysis. Continued evaluation of these trends will help reduce the risk of overvaluing some warehouse properties while undervaluing others. Accordingly, our finding and recommendations remain unchanged.

FINDING #2: Assessment Variability Exceeds IAAO Standards for Multiple Commercial Portfolios

Significant Deficiency in Objective #1 and #4

Condition: The ratio study determined that the coefficient of dispersion (COD) for the Industrial-Warehouse, Hospitality-Lodging, Special Purpose, Retail, and Office portfolios exceeded the IAAO recommended range of 5% to 15%. The overall commercial COD was 18.8%, indicating greater assessment variability than advised under IAAO standards.

Criteria: IAAO Standard on Ratio Study (2013) Section 9.2.3

"The COD should be between 5.0 and 20.0. In larger, urban market areas, it should be between 5.0 and 15.0."

Cause: The ratio study noted that elevated COD values may result from a combination of factors, including inconsistent property data, limitations in valuation model calibration, market volatility, and the inherent complexity of certain commercial property types.

Effect: Properties with similar market values may be assessed at materially different levels, resulting in horizontal inequities among taxpayers. Elevated assessment variability may contribute to increased appeals activity, reduced confidence in the assessment process, and inconsistent tax burdens among comparable commercial properties.

Recommendation: We recommend that RPAD:

1. Analyze portfolios with elevated COD values to identify sources of assessment variability;
2. Improve property data quality and validation procedures;
3. Review market segmentation, location definitions, and valuation model calibration processes to improve assessment consistency; and
4. Establish monitoring procedures to evaluate assessment uniformity throughout future reassessment cycles.

Management's Response: The Office of Tax and Revenue (OTR) disagrees with the audit finding, as commercial properties are a small portion of the District's overall parcel account. Therefore, OTR does not deem its commercial market area as large and thus a COD of 18.8 is within the proper IAAO standard of 5.0 to 20.0.

Planned Corrective Action: Not applicable.

Target Completion Date: Not applicable.

Auditor's Rebuttal: We acknowledge management's interpretation of the applicable IAAO standard. However, the classification applied in this audit is consistent with the methodology used in the prior independent ratio study, providing a consistent basis for evaluating changes in assessment performance over time. Crowe believes the District of Columbia's commercial real property assessment program is appropriately evaluated using the IAAO benchmark for larger urban jurisdictions, given the complexity, density, and characteristics of its commercial real estate market. Although the acceptable COD ranges established by IAAO are intended as guidelines, periodic measurement using a consistent benchmark provides a meaningful basis for evaluating whether assessment uniformity is improving or deteriorating over time. While changing market conditions may increase dispersion, ongoing reassessment activities are expected to improve assessment uniformity. Accordingly, our finding and recommendations remain unchanged.

FINDING #3: Assessment Levels Vary Significantly Across Commercial Property Types

Significant Deficiency in Objective #1 and #4

Condition: The ratio study determined that the Hospitality-Lodging, Special Purpose, and Industrial-Warehouse portfolios were not within five percentage points of the overall median sales ratio of 90.3%, as recommended by IAAO standards. The study further identified substantial variation in assessment levels across commercial property types, including a median sales ratio of 55.3% for Industrial-Warehouse properties compared to 91.3% for Retail properties.

Criteria: IAAO Standard on Ratio Studies (2013) Section 9.2.1

"The level of appraisal of each stratum (class, neighborhood, age group, market areas, and the like) should be within 5 percent of the overall level of appraisal of the jurisdiction."

Cause: The ratio study identified potential contributing factors including differences in market behavior across property types, limitations in available market and income data, and valuation methodologies that may not perform consistently across all commercial portfolios.

Effect: Commercial property owners may bear disproportionate tax burdens based on property type rather than market value. Significant differences in assessment levels across portfolios may reduce confidence in the fairness of the assessment system and increase the likelihood of taxpayer appeals and disputes.

Recommendation: We recommend that RPAD:

1. Review assessment methodologies for portfolios that fall outside the acceptable range of the overall median ratio;
2. Evaluate whether market assumptions and valuation models are appropriately calibrated for each commercial property type;
3. Enhance collection and analysis of market and income data for portfolios exhibiting the greatest disparity; and
4. Use future ratio studies to monitor inter-portfolio equity and implement corrective actions where significant disparities persist.

Management's Response: The Office of Tax and Revenue (OTR) disagrees with the audit finding, as the supporting analysis was unavailable for our review**.** The internal reviews indicate that transactions involving Hospitality-Lodging, Medical/Nursing Homes, and Special Purpose facilities (e.g., government, houses of worship, and universities) are predominantly executed as going concern sales. Currently, no statutory or auditing guidelines exist to segregate real property from Personal Property (FF&E) and Business Enterprise Value (Intangible Assets). Consequently, reported transaction prices seldom reflect real estate value alone. This issue is compounded by the fact that transferees often disproportionately allocate value to lower-taxed components to secure tax advantages. Moving forward, OTR will collaborate with Legal Counsel to evaluate the feasibility of the DC Council enacting legislation that requires strict component separation and establishes a legally enforceable audit framework.

Planned Corrective Action: N/A

Target Completion Date: N/A

Auditor's Rebuttal: We acknowledge management's explanation regarding the challenges associated with valuing properties transferred as going-concern transactions and recognize that these factors may contribute to differences in assessment levels across certain commercial property types. We also note management's efforts to evaluate potential legislative solutions that would improve the separation of real property, personal property, and business enterprise value in future transactions. However, the ratio study identified statistically significant differences in assessment levels across commercial portfolios relative to the IAAO benchmark. Accordingly, while management's explanation provides additional context for these results, our finding and recommendations remain unchanged.

<u>FINDING #4: Valuation Models Do Not Consistently Incorporate Time-Adjusted Market Analysis</u>

Deficiency in Objective #1 and #4

Condition: The ratio study found that RPAD does not consistently apply time adjustments to sales used in valuation model calibration and market analysis. The study found that commercial market conditions changed significantly between January 2020 and December 2022, the period from which sales were used to support valuation activities. Crowe identified measurable price appreciation across major commercial property groups during the period, including approximately 15% growth in Retail, Office, and Hospitality properties, 15.9% growth in Apartment properties, and 57.9% growth in Industrial and Special Purpose properties.

Criteria: IAAO Standard on Ratio Studies (2013) Section 4.4

"To develop an adequate sample size, the sales used in ratio studies can span a period of as long as five years provided there have been no significant economic shifts or changes to property characteristics and sales prices have been adjusted for time as necessary."

Cause: RPAD's valuation process relies primarily on recorded sales and market analyses that do not consistently incorporate statistically derived time-trending adjustments to account for changing market conditions.

Effect: Without time adjustments, sales occurring during different market conditions may not accurately represent value as of the assessment date. This may reduce the accuracy of valuation models, limit the usefulness of older sales and income data, contribute to assessment inequities across property types, and increase the risk of under- or over-valuation in periods of rapidly changing market conditions.

Recommendation: We recommend that RPAD:

1. Develop and implement a formal methodology for analyzing market trends and applying time adjustments to sales used in valuation model calibration and market analysis;
2. Establish procedures to periodically evaluate market movement across property types and submarkets to ensure sales are adjusted to the applicable assessment date when market conditions change;
3. Shift to greater use of sales- and income-based valuation models supported by time-adjusted market data, and
4. Incorporate time adjustments as a standard component of future reassessment and model calibration processes.

Management's Response: The Office of Tax and Revenue (OTR) disagrees with the audit finding, as the specific analysis prompting this conclusion was unavailable for our review. OTR summarizes its response to the findings and recommendations as follows:

- **Unsupportable Growth Metrics**: OTR's internal data, verified by third-party market analyses, contradicts the audited claim of a 57.9% growth rate for Industrial and Special Purpose properties during and immediately following the COVID-19 pandemic. This purported growth is misaligned with market realities and is further disproven by a severe spike in assessment appeals for these property types.
- **Statistical Flaws of COVID-Era Time Adjustments**: While OTR's standard practice is to utilize robust sample sizes and multi-year ratio studies, the extreme market conditions during the pandemic and its immediate aftermath (spanning roughly 3 to 4 years) rendered positive market trending statistically unsupportable. High market illiquidity and a surge in distressed sales meant that marquee asset classes—including Hospitality-Lodging, Office, Special Purpose, Medical/Nursing Homes, and Retail—experienced negative time adjustments and downward market trends.
- **Disruption to Highest and Best Use (HBU)**: Over the past five years, economic distress forced a fundamental shift in the Highest and Best Use for many struggling high-value properties. Numerous hotels and offices were converted to residential spaces. Applying aggressive, positive time adjustments during a period dominated by distressed liquidations would be theoretical and impractical.
- **The Distortion of Going-Concern Transactions**: As previously noted, transactions involving Hospitality-Lodging, Special Purpose, and Medical/Nursing Home properties routinely transfer as going-concern operations. Failing to isolate and subtract bundled Personal Property (FF&E) and Business Enterprise Value (Intangible Assets) inevitably skews any statistical analysis, leading to artificially inflated real property valuations.

Planned Corrective Action: N/A

Target Completion Date: N/A

Auditor's Rebuttal: We acknowledge management's concerns regarding the application of time adjustments during an unprecedented period of market volatility. The time-trending methodology used in the ratio study was designed to isolate the effects of time while controlling for other market influences and generated statistically supported, non-linear adjustment factors based on observed market behavior. Where time was not determined to be a significant factor, no adjustment was applied. The methodology also recognizes distinct market phases, including pre-COVID, COVID, and post-COVID periods, and estimates separate adjustment factors as appropriate. In addition, sales involving changes in highest and best use were excluded through the sales validation process or through differences in property use between the time of sale and the valuation date. Accordingly, our finding and recommendations remain unchanged.

Section II – Organizational Structure

Objective

This section addresses Objective #2 of the audit, which required an evaluation of OTR's organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff development functions. The audit included an assessment of whether OTR's workforce structure, staffing practices, workload management, training activities, and performance measures were adequate to support effective commercial real property assessment operations. The audit also included benchmarking OTR's practices against objective criteria and leading practices to determine whether its workforce management approach aligned with applicable standards and supported operational effectiveness, efficiency, and sustainability.

Methodology / Analysis Performed

To evaluate OTR's organizational structure and workforce management practices, Crowe reviewed Real Property Tax Administration activities for fiscal years 2022 through 2024. Crowe's methodology included document review, workforce data analysis, stakeholder interviews, nonstatistical judgmental selections, complete-population review where sufficiently reliable datasets were available, and availability-based benchmarking against applicable professional standards and peer jurisdictions.

Crowe reviewed organizational charts, staffing rosters, position descriptions, job postings, parcel-assignment data, workforce experience and tenure information, compensation records, training materials, qualification and credential documentation, onboarding materials, and available workforce planning and succession records.

Crowe also conducted seven judgmentally selected interviews with officials and employees responsible for executive human capital oversight, assessment management, commercial appraisal supervision, training, staffing, and workforce continuity. Interviewees included the Chief of Staff and Deputy Chief Financial Officer, the Real Property Assessment Manager, the Supervisory Tax Academy Specialist, a Market Analyst responsible for appraisal training administration, and three Commercial Supervisory Appraisers.

Organizational Overview

OTR's Real Property Tax Administration (RPTA) division is responsible for administering complex property tax assessment and mass appraisal activities across commercial and residential property categories. The organization relies on appraisers, supervisory appraisers, assessment technicians, and supporting operational staff to perform valuation analysis, appeals support, quality review, taxpayer service, and workflow management activities.

The organizational structure generally establishes clear reporting relationships and supervisory oversight responsibilities; however, interviews and operational analysis identified significant reliance on informal coordination, institutional knowledge, and managerial judgment to address staffing shortages, workload pressures, and operational continuity challenges. Supervisory personnel frequently perform both oversight and operational responsibilities, including workload redistribution, staffing mitigation, and informal training coordination, increasing dependency on experienced staff and reducing process standardization.

Workforce Analysis

Workforce analysis identified several operational and workforce sustainability risks affecting OTR's appraisal functions. Staffing and workload data showed that parcel assignments vary across appraisal units and individual appraisers; however, these differences should be interpreted in context. Appraisal workloads are not solely determined by parcel counts. Workload levels may vary based on parcel complexity, property type specialization, valuation methodology, appeal volumes, inspection requirements, data quality issues, and unit-specific responsibilities. For example, commercial, residential, exempt, and specialized property assignments may require different levels of analysis, documentation, supervisory review, and taxpayer interaction. As a result, differences in parcel assignments alone do not necessarily indicate workload misalignment or inequitable distribution.

Although some variation is expected and may be appropriate, OTR has not established formal complexity-adjusted workload benchmarks or standardized workload monitoring practices to assess staffing alignment and operational capacity. Without a documented framework that considers parcel volume, complexity, property type, appeals activity, and unit responsibilities, management has limited ability to determine whether workload assignments are appropriately balanced, whether staffing levels align with operational needs, or whether emerging capacity risks require corrective action.

The audit also identified that OTR relies heavily on a highly experienced and long-tenured workforce, with a significant portion of employees approaching retirement eligibility. Workforce planning and succession activities were largely informal and reactive, with limited documentation of knowledge transfer processes, contingency planning, or structured succession readiness strategies. Interviews further indicated that workforce planning efforts were not consistently integrated with workload management, hiring strategies, training coordination, or long-term workforce sustainability planning.

In addition, OTR does not maintain centralized, integrated monitoring of workforce qualifications, continuing education requirements, credential expiration dates, or competency development activities. Workforce-related oversight activities are decentralized across operational units, supervisors, HR, and training personnel, limiting management visibility into workforce risks, staffing sustainability, and competency assurance.

Compensation & Qualifications

Compensation benchmarking indicated that OTR generally maintains structured and competitive compensation practices relative to comparable peer jurisdictions, particularly for appraisal and supervisory roles. Position descriptions and job postings reviewed also demonstrated alignment with professional appraisal standards and qualification expectations, including required appraisal experience, IAAO coursework, and technical competency requirements.

However, while staff generally possess substantial appraisal experience and technical expertise, qualification and credential documentation was not consistently centralized or formally monitored. The audit identified gaps in ongoing verification of professional designations, license validity, continuing education completion, and workforce competency tracking. As a result, OTR could not consistently demonstrate that workforce qualifications, training requirements, and competency standards were systematically maintained and monitored over time. Additionally, staffing shortages and workload pressures may limit employees' ability to fully participate in training and professional development activities necessary to sustain long-term competency and operational resiliency.

Control Identification and Assessment

Based on information obtained through document review, workforce data analysis, and stakeholder interviews, Crowe identified and documented key controls and monitoring activities supporting OTR's organizational structure and workforce management practices. Crowe evaluated the significance of these controls relative to the Office of Personnel Management Human Capital Framework, GAO's Standards for Internal Control in the Federal Government and human capital guidance, the Uniform Standards of Professional Appraisal Practice, and International Association of Assessing Officers standards.

Particular emphasis was placed on controls designed to support clear accountability, appropriate staffing, workload oversight, workforce competency, succession planning, and operational continuity.

Key processes and controls evaluated included:

- Organizational reporting lines and supervisory spans of control;
- Commercial staffing, parcel-assignment, and workload-monitoring practices;

- Position descriptions, job postings, and qualification requirements;
- Employee credential and continuing-education oversight;
- Compensation structure and market benchmarking;
- Onboarding and role-specific training activities;
- Workforce experience, tenure, and retirement-risk monitoring; and
- Succession planning, cross-training, and knowledge-transfer practices.

Control Understanding and Limited Validation Procedures

Crowe performed limited procedures over selected controls and workforce management practices to obtain an understanding of their design and implementation. These procedures were not intended to provide assurance over the operating effectiveness of controls throughout the audit period.

Procedures consisted primarily of inspecting organizational records, analyzing workforce data, reviewing policies and supporting documentation, interviewing responsible personnel, and examining selected records demonstrating that workforce-related practices had been implemented.

Where complete and sufficiently reliable datasets or complete sets of documentation were provided, Crowe reviewed the full population or complete documentation available. These procedures included analysis of the commercial staffing and parcel-assignment dataset, review of commercial supervisory spans of control, and review of organizational charts and selected policy and onboarding materials.

For other areas, including position descriptions, job postings, qualification records, credential documentation, training records, workforce planning materials, and compensation benchmarking, Crowe used nonstatistical judgmental selections or availability-based review. Selections were based on the significance of the workforce process, associated audit risk, relevance to commercial appraisal operations, responsibilities of the positions reviewed, and the need to obtain coverage across supervisory, operational, and training functions.

Control Area	Population / Control Universe	Selection Method	Sample Size
Organizational structure and reporting relationships	RPTA organizational charts applicable to the audit period	Reviewed organizational charts provided for the audit period to assess reporting lines, management layers, supervisory structure, and identified vacancies	Complete documentation provided
Position descriptions, job postings, and qualification requirements	Position descriptions and job postings applicable to commercial appraisal and supervisory roles	Judgmental selection of key commercial appraisal and supervisory positions based on relevance to the audit objective	2 position descriptions and 2 job postings
Commercial staffing, parcel assignments, and workload distribution	Commercial appraisers and parcel assignments contained in the dataset provided by OTR	Reviewed the complete population contained in the commercial staffing and parcel-assignment dataset and analyzed parcel distribution by appraiser and unit	Approximately 18 appraisers across 3 commercial units
Supervisory span of control	Commercial supervisory units and direct-report assignments contained in	Reviewed the complete population of Commercial Supervisory Appraisers identified in the data provided	3 supervisors; 6–8 direct reports each

Control Area	Population / Control Universe	Selection Method	Sample Size
	organizational and staffing data		
Workforce experience and tenure	Commercial and residential employees contained in the workforce experience and tenure data provided	Complete-population analysis of records contained in the dataset	Complete population in dataset
Compensation structure	Commercial-unit salary, grade, step, and benefits information provided by OTR	Reviewed available compensation schedules and employee-level information	Records made available
Employee qualifications and credentials	Qualification, education, credential, license, and continuing-education records maintained by OTR	Judgmental and availability-based review because records were decentralized and not maintained in a complete centralized repository	Records made available; exact count not documented
Training programs and participation	Assessor training records and attendance information beginning in fiscal year 2022	Reviewed available training schedules, course information, attendance records, and completion documentation	Records made available; exact count not documented
Onboarding and role-specific development	OCFO and OTR onboarding policies, agendas, checklists, systems-training materials, and role-specific training information	Reviewed complete sets of onboarding materials provided and corroborated implementation through interviews	Complete documentation provided; employee-file count not documented
Workforce planning and succession	Workforce planning, succession, knowledge-transfer, and continuity documentation maintained during the audit period	Availability-based review of documentation provided and corroboration through interviews	Records made available
Workforce and operational interviews	Officials and employees responsible for executive oversight, assessment management, commercial appraisal supervision, and training	Judgmental selection based on responsibilities for staffing, workload management, training, qualifications, and workforce continuity	7 interviews
Compensation and qualification benchmarking	Comparable public-sector appraisal employers with available salary and qualification information	Availability-based selection using urban complexity, functional similarity, labor-market competition, governance structure, and availability of public information	4 peer jurisdictions; 2 OTR roles

Findings

FINDING #5: Staffing and Workload Misalignment Impacts Operational Effectiveness

Significant Deficiency in Objective #2

Condition: OTR does not maintain a formal, standardized framework to align staffing resources with workload demands and appraisal complexity. Although OTR maintains parcel assignment and staffing data, the documentation reviewed did not demonstrate that OTR has established documented complexity-adjusted workload benchmarks, formal workload distribution methodologies, or routine monitoring processes to assess whether staffing levels and workload assignments are appropriately aligned across appraisal units.

Our review of commercial appraisal workload data identified substantial variation in parcel assignments across appraisers and units. Commercial appraisers were responsible for an average of approximately 1,470 parcels per appraiser; however, individual parcel assignments ranged from fewer than 500 parcels to more than 7,700 parcels. At the unit level, Commercial Unit C averaged approximately 2,540 parcels per appraiser, compared with approximately 890 parcels per appraiser in Commercial Unit A and approximately 1,200 parcels per appraiser in Commercial Unit B.

These parcel counts were reviewed as an indicator of potential workload variation; however, the data was not normalized for parcel complexity, appraisal effort, property type, appeal volume, inspection requirements, valuation methodology, staff experience, or other workload drivers. Parcel counts alone may not fully reflect actual appraisal workload or the level of effort required to complete assigned work. For example, a smaller number of complex commercial properties may require more appraisal effort than a larger number of less complex or more standardized properties. Accordingly, the audit does not conclude that differences in parcel counts alone demonstrate workload imbalance.

However, the absence of a documented complexity-adjusted workload methodology limits OTR's ability to demonstrate that workload differences are intentional, reasonable, and aligned with operational risk. While some variation may be appropriate due to property type, appraisal complexity, appeal volume, staff experience, neighborhood assignments, and unit responsibilities, OTR has not documented workload benchmarks, complexity factors, or workload thresholds to support a consistent assessment of whether staffing and assignments are proportionate to appraisal effort.

Interviews further indicated that workload distribution is managed primarily through supervisory judgment, operational monitoring, and informal adjustments. Management and supervisors stated that parcel assignments are influenced by property type, neighborhood, property complexity, staff experience, and expected appeal volume. Supervisors also monitor workload through observations during the assessment cycle, weekly and monthly activity levels, and appeal volumes by appraiser. However, these practices are not supported by a formal workload methodology that consistently links parcel volume, complexity, appeal activity, staff capacity, and staffing decisions.

Interviewees also identified staffing constraints and workload pressure as recurring operational challenges. Supervisors and managers reported that commercial appraisal units have experienced vacancies, increasing parcel volume and complexity, and growing appeal demands. Interviewees indicated that staffing gaps are addressed through work redistribution, supervisor involvement, peer support, and temporary realignment of staff across units. These mitigation practices help OTR continue meeting required deadlines, but they also demonstrate reliance on informal workload management rather than a standardized, data-driven staffing and workload alignment framework.

As a result, OTR cannot readily demonstrate that commercial appraisal workloads are proportionate to appraisal complexity, that staffing levels are sufficient for workload demands, or that potential workload risks are identified and addressed through a consistent and documented process.

Criteria:

- Federal human capital and internal control standards require agencies to align staffing resources with mission needs, workload demands, and operational risks. Under 5 C.F.R. § 250.203(b), the

Talent Management system is intended to promote a high-performing workforce, identify and close skill gaps, and implement programs to attract, acquire, develop, promote, and retain quality talent. The standards require agencies to "plan for and manage current and future workforce needs" and make progress toward closing knowledge, skill, and competency gaps.

- 5 C.F.R. § 250.204(a)(2)-(3) further requires agency human capital policies and programs to be based on "comprehensive workforce planning and analysis," to monitor and address skill gaps using "comprehensive data analytic methods and gap closure strategies," and to recruit, hire, develop, and retain an effective workforce, especially in mission-critical occupations.
- GAO's Standards for Internal Control in the Federal Government require management to design control activities to achieve objectives and respond to risks. Principle 10 states that management should design control activities to achieve objectives and respond to risks. GAO identifies management of human capital as a control activity and states that effective management of an entity's workforce is essential to achieving results. GAO also states that management should continually assess the knowledge, skills, and ability needs of the entity so that it can obtain a workforce with the required capabilities to achieve organizational goals. GAO further states that management may adjust excessive pressure on personnel through tools such as rebalancing workloads or increasing resource levels.
- The IAAO Standard on Mass Appraisal of Real Property states that mass appraisal requires staff, technical, and other resources. The standard further provides that a successful in-house appraisal program requires trained staff and adequate facilities and that staffing needs can vary significantly based on factors such as the frequency of reassessments. IAAO also states that assessment office staff should be prepared to support individual valuations and explain the basic approach used to estimate property values.
- Effective internal control standards require agencies to implement a documented process for aligning workload and staffing. Such processes should consider key operational factors, including parcel volume, appraisal complexity, staff capacity, reassessment cycles, skill requirements, and relevant operational risk indicators, to support appropriate work assignment and informed staffing decisions.

Cause: The condition occurred because OTR has not documented a management rationale, formal decision, or risk assessment explaining why complexity-adjusted workload controls, centralized workload governance, or standardized workload monitoring practices have not been implemented. Based on the documentation reviewed, the audit did not identify evidence that management formally evaluated the need for complexity-adjusted workload benchmarks, assessed the risks of relying on informal workload redistribution practices, or documented a decision to accept those risks.

Interviews indicated that workload assignment and monitoring practices are primarily managed through supervisory judgment, operational experience, and informal adjustments to meet assessment cycle deadlines, address vacancies, and respond to appeal volumes. Management has not established centralized governance, accountability, or formal requirements for analyzing workload complexity, parcel volume, appeal activity, staffing capacity, and resource allocation across appraisal functions. As a result, workload management practices have evolved through supervisory experience, informal redistribution, and operational judgment rather than through organization-wide workload standards, performance expectations, and risk-based staffing methodologies.

Effect: Without a formal workload and staffing alignment framework, OTR has limited assurance that staffing resources are consistently aligned with parcel volume, appraisal complexity, appeal activity, and staff capacity. This increases the risk that certain appraisal units or individual appraisers may experience unsustainable workload pressures, while other capacity may not be fully utilized.

The workload variation identified in commercial appraisal assignments, combined with interview feedback regarding vacancies, increased appeal demands, and informal workload redistribution, indicates that OTR faces heightened operational risk during peak reassessment and appeals periods. Interviewees reported that when workloads exceed sustainable levels, work may be delayed, backlogs may develop, training may be deferred, and supervisors may need to step in or realign staff to maintain operations. These conditions may reduce time available for technical review, mentoring, training, and professional development.

In addition, reliance on informal workload redistribution and supervisory judgment reduces transparency and makes it more difficult for OTR to demonstrate that workload assignments are equitable, sustainable, and aligned with appraisal complexity. Over time, these conditions may affect appraisal timeliness, quality, consistency, taxpayer service, staff morale, and continuity of operations.

Recommendation: We recommend that OTR:

- Establish a formal workload management framework for appraisal operations;
- Develop workload indicators that consider parcel volume, property type, appraisal complexity, appeal activity, staffing levels, vacancies, and staff experience;
- Define roles and responsibilities for workload monitoring, supervisory review, escalation, and management oversight; and
- Periodically review workload and staffing data to identify capacity risks and support workload adjustments or resource allocation decisions.

OTR should retain discretion to determine the specific methodology, indicators, review frequency, and implementation approach that best align with its appraisal operations, available data, and resource constraints.

Management's Response: The Office of Tax and Revenue (OTR) agrees in part with the audit finding, as management already performs an annual review of appraiser assignments to ensure workload balance.

Planned Corrective Action: OTR will develop a method to officially track and document the process.

Target Completion Date: December 31, 2026.

Auditor's Rebuttal: We acknowledge management's agreement with the finding and planned corrective actions. Because the corrective actions had not been implemented during the audit period, the finding remains unchanged.

FINDING #6: Inadequate Credential Tracking and Training Governance Weakens Workforce Competency Assurance

Significant Deficiency in Objective #2

Condition: OTR has established training activities for appraisal staff; however, it does not maintain a centralized, formalized framework to track, monitor, and verify workforce qualifications, credentials, continuing education requirements, and competency development for appraisal personnel. Based on interviews and documentation reviewed, the audit did not identify a District or OTR requirement that all appraisal staff maintain external professional licenses or professional designations as a condition of employment. Therefore, this condition distinguishes between required qualifications and training expectations established through position requirements or OTR practices, and voluntary or employee-held professional credentials.

The audit team reviewed personnel qualification data, supporting documentation, training records, onboarding materials, and interview results. The review found that OTR offers structured training programs aligned with its property tax assessment mission, including IAAO coursework, USPAP instruction, mass appraisal, modeling, geographic information systems,, and valuation-related training. Attendance logs also demonstrate that training participation is tracked for appraisers and other core assessment staff.

However, OTR has not established a centralized control process to monitor whether appraisal staff maintain required qualifications, required or expected training, and role-specific competency expectations over time. Specifically, there is no ongoing continuing education tracking system, no enterprise HR system tracking required training completion, continuing education participation, or employee-held license and credential information where applicable, and no formal tracking log or expiration monitoring process for credentials that employees voluntarily maintain or that management determines are relevant to role competency. The responsibility for maintaining external licenses or credentials generally remains with individual employees, and OTR does not centrally house this information or notify employees of upcoming credential or license expirations.

The audit team also identified documentation gaps when comparing position requirements to staff qualification and education data. Position descriptions for Appraiser, Commercial, and Supervisory/Senior Appraiser roles require advanced appraisal competency, including expert knowledge of valuation methodologies, the ability to review and certify complex appraisal work, participation in litigation and appeals, and completion of specific professional training such as IAAO Courses 101, 102, 112, and 300 or equivalent. However, staff qualification records did not consistently document completion of required or expected IAAO coursework and other training identified in position descriptions or OTR practices. Records also did not consistently distinguish required qualifications from voluntary or employee-held professional designations, such as Certified Assessment Evaluator (CAE), Residential Evaluation Specialist (RES), Assessment Administration Specialist (AAS), or Member of the Appraisal Institute (MAI), or external licenses that staff may maintain independently.

Interviews further supported these documentation and governance gaps. An interviewee stated that while a roster of appraisers exists, certification tracking, including CAE, AAS, RES, MAI, and IAAO coursework, is not maintained in MITTS; credential documentation is maintained within RPTA; and the Tax Academy does not centrally verify appraisal licenses or validate credentials against state databases. Another interviewee stated that OTR does not require appraisers to be licensed or credentialed, that required qualifications are tied to hiring criteria rather than ongoing credential maintenance, and that external professional licenses held by staff are the individual employee's responsibility to maintain. Accordingly, the audit does not conclude that OTR failed to enforce a universal licensure or certification requirement for appraisers. Rather, the issue is that OTR has not established a centralized process to document required qualifications and training expectations separately from voluntary or employee-held credentials, or to determine which credentials, if any, should be monitored for specific appraisal roles.

In addition, onboarding and technical training processes are not fully centralized. The documentation reviewed showed that OCFO and OTR provide general onboarding, policy training, system training, and organizational orientation. However, role-specific technical training following orientation is largely decentralized to individual managers, and the documentation reviewed did not clearly demonstrate standardized role-based onboarding checklists, timelines, or competency milestones at the OTR level. Interviews also indicated that the Tax Academy does not provide technical appraisal training, such as valuation methodologies, CAMA software, or litigation preparation; rather, technical training is handled within RPTA by supervisors and senior appraisers.

As a result, OTR cannot readily demonstrate, through a centralized and consistently maintained control process, that appraisal staff continue to meet required qualifications, required or expected training, continuing education expectations where applicable, and role-specific competency expectations necessary to support appraisal operations. In addition, OTR does not centrally distinguish or monitor voluntary or employee-held professional licenses and credentials that may be relevant to succession planning, staff development, or competency assurance, even where those credentials are not required as a condition of employment.

Criteria:

- Criteria for this finding is derived from GAO internal control standards, IAAO assessment administration guidance, USPAP appraisal standards, OPM human capital guidance, and OTR position requirements. Collectively, these sources support the expectation that OTR identify required qualifications and competencies for appraisal roles, provide or facilitate appropriate training and development, and maintain sufficient documentation to demonstrate that personnel meet required or expected qualifications for assigned responsibilities. USPAP's Competency Rule states that an appraiser must be competent to perform the assignment, acquire the necessary competency, or decline or withdraw from the assignment. The rule further states that, in all cases, the appraiser must perform competently when completing the assignment. USPAP provides that competency requires the ability to properly identify the problem to be addressed, the knowledge and experience to complete the assignment competently, and recognition of and compliance with applicable laws and regulations.
- GAO's Standards for Internal Control in the Federal Government, Principle 4, states that management should demonstrate a commitment to recruit, develop, and retain competent

individuals. Paragraph 4.02 states that management should establish expectations of competence for key roles. Paragraph 4.04 states that personnel need to possess and maintain a level of competence that allows them to accomplish their assigned responsibilities. Paragraph 4.05 states that management should recruit, develop, and retain competent personnel and should train individuals to develop competencies appropriate for key roles.

- The IAAO Standard on Professional Development states that in-service training and continuing education of assessment personnel are essential parts of an effective assessment administration program. The standard further states that certification programs commonly include examination, course or workshop completion, and continuing education, and that a specified number of hours of approved continuing education within a specified period should be required to retain certification. The IAAO standard also states that education guidelines must clearly describe the minimum continuing education requirements for individuals employed in various positions in an assessment office.
- GAO's Principle 10 also requires management to design control activities to achieve objectives and respond to risks. Paragraph 10.02 states that control activities are the policies, procedures, techniques, and mechanisms that enforce management's directives and address related risks. Paragraph 12.02 further states that management should document internal control responsibilities in policies.

Collectively, GAO internal control standards, IAAO professional development guidance, USPAP competency requirements, OPM human capital guidance, and OTR position requirements establish that management should define competency expectations for appraisal roles, support training and development, and maintain documentation sufficient to demonstrate that personnel meet required qualifications, required or expected training, and role-specific competency expectations.

Cause: The condition occurred because OTR has not assigned centralized ownership and accountability for workforce competency assurance across the appraisal function. Training, credential documentation, and competency development responsibilities are divided among multiple stakeholders, including the Tax Academy, RPTA supervisors, senior appraisers, and individual employees. While these stakeholders each perform important functions, management has not established an integrated governance structure that defines who is responsible for tracking credentials, verifying ongoing license or certification status, monitoring continuing education, and confirming role-specific competency development.

In addition, OTR's recent efforts to centralize training through the Tax Academy have focused primarily on organizational onboarding, systems training, and training coordination, while technical appraisal training and credential monitoring remain largely division-managed. As a result, OTR has not yet developed an organization-wide competency management process that connects hiring qualifications, required coursework, ongoing continuing education, technical training, license or credential status, and workforce planning.

Effect: Without a centralized competency and credential monitoring framework, OTR has limited assurance that appraisal staff consistently maintain the qualifications, training, and competencies expected for their assigned roles. The audit did not identify specific appraisal errors, appeals issues, or quality deficiencies attributable to missing credential or training documentation during testing. However, the absence of a centralized monitoring process creates an auditability and oversight risk because OTR cannot readily demonstrate that all staff performing complex commercial valuations, appraisal review, appeals support, and litigation-related work have completed applicable coursework, maintained relevant voluntary or employee-held professional credentials where applicable, or satisfied ongoing continuing education expectations.

The lack of centralized tracking also increases the risk that incomplete coursework, undocumented training, expired employee-held credentials, or lapses in continuing education, where applicable, could go undetected. Because technical appraisal training is largely decentralized to supervisors and senior staff, onboarding quality and skill development may vary by unit, supervisor, workload level, and available staff capacity.

These conditions may affect OTR's ability to demonstrate compliance with professional competency expectations and may increase risks related to appraisal quality, defensibility, consistency, and continuity of operations, particularly for complex commercial appraisal work and appeals-related functions. However, the audit's conclusion is based on the absence of centralized monitoring and documentation controls, not on identified appraisal errors or confirmed deficiencies in valuation outcomes.

Recommendation: We recommend that OTR, in coordination with OCFO Human Resources, the Tax Academy, and RPTA management:

- Establish a centralized process to track appraisal staff qualifications, required training, continuing education, and role-specific competency requirements;
- Distinguish required qualifications and training from voluntary licenses, certifications, and professional designations;
- Define responsibility for maintaining, reviewing, and updating qualification and training records; and
- Periodically review credential and training information to identify competency gaps and support workforce development decisions.

Management's Response: Management disagrees that credential tracking is inadequate for workforce competency assurance. Each position description in the appraisal track outlines the required credentials and experience necessary to qualify for the position. The documentation of the required credentials is currently found in the NeoGov system for each appraiser. The mandatory credentials/coursework for position qualification are foundational and do not expire.

Post-hire, RPTA tracks **all required** supplemental training that is either directly provided by or procured for appraisal staff by the Real Property Tax Administration. The combination of the position qualification requirements and the required training provide competency assurance. Any additional continuing education coursework taken by appraisers is reported on a voluntary basis and cannot be made mandatory.

Planned Corrective Action: Going forward, OTR will on an annual basis make a formal request of appraisal staff to report all additional coursework and/or certifications completed during the fiscal year.

Target Completion Date: FY 2027

Auditor's Rebuttal: The finding is unchanged. Management's response indicates that required position qualifications are documented in NeoGov, foundational qualification requirements do not expire, and required supplemental training provided or procured by RPTA is tracked following hire. The audit acknowledges these practices and does not dispute that OTR maintains position qualification requirements or provides and tracks certain required training activities.

However, the finding is not based on the absence of position qualification documentation or individual training records. Rather, it is based on the absence of a centralized governance process to consistently document, monitor, and demonstrate that appraisal personnel continue to meet required qualifications, required or expected training, role-specific competency expectations, and continuing education requirements, where applicable. During the audit, despite multiple requests for supporting documentation, management did not provide evidence demonstrating a centralized process for monitoring these elements or documenting ongoing competency assurance across the appraisal workforce.

As discussed in the finding, the audit also identified documentation gaps between position requirements and personnel qualification records, as well as decentralized responsibility for technical training and competency development. The audit further concluded that OTR did not maintain a centralized process to distinguish required qualifications from voluntary licenses, certifications, and professional designations or to document which credentials, if any, should be monitored for specific appraisal roles. These conclusions were based on documentation reviewed and interviews conducted during the audit.

Management's response that OTR will annually request appraisal staff to report additional coursework and certifications represents a positive step toward strengthening workforce competency oversight. However, this planned action is consistent with the audit's recommendation to establish a more formalized and centralized process for documenting and monitoring workforce qualifications, training, and competency.

Accordingly, the audit conclusions and recommendations remain unchanged.

Section III – Hiring Practices

Objective

This section addresses Objective #3 of the audit, which required an examination of OTR’s hiring practices and the extent to which applicable human capital rules support or hinder OTR’s ability to attract, develop, and retain a well-qualified workforce. The audit included an assessment of OTR’s recruitment and hiring processes, workforce development practices, retention considerations, and related human capital requirements to determine whether they support timely staffing, workforce competency, and continuity of commercial real property assessment operations.

Methodology / Analysis Performed

The audit team reviewed OTR and OCFO human capital documentation and activities for fiscal years 2022 through 2024, including:

- Hiring policies
- Job postings
- Onboarding materials
- Workforce data
- Separation data
- Training records
- Compensation information

Interviews were conducted with HR personnel, leadership, supervisors, and training staff to evaluate recruitment practices, hiring challenges, workforce sustainability, training coordination, and retention risks. The audit team also reviewed available hiring process documentation, analyzed workforce and staffing data, evaluated recruitment outreach practices, and compared selected practices against applicable guidance and leading practices from the OPM Human Capital Framework (HCF), GAO Green Book, Equal Employment Opportunity Commission (EEOC) guidance, USPAP, and IAAO standards. Benchmarking analysis was performed using comparable jurisdictions and public-sector appraisal organizations where data was available.

Recruitment Process

audit team evaluated OTR’s recruitment and hiring practices, including job postings, recruitment outreach, hiring timelines, and hiring process coordination. OTR utilizes multiple recruitment sources, including professional associations, job fairs, and targeted sourcing strategies. Job postings reviewed generally included appropriate equal employment opportunity language, minimum qualification requirements, and compensation transparency. However, the audit identified limited formal monitoring of recruitment effectiveness, hiring timelines for specialized appraisal positions. The audit also identified that responsibility for collecting, maintaining, and analyzing applicant demographic data was not clearly defined between OTR and OCFO Human Resources. To the extent applicant demographic data is collected through centralized HR systems or maintained by OCFO Human Resources, OTR may not be the official custodian of that information. However, the documentation reviewed did not demonstrate that OTR regularly receives or uses aggregated, appropriate recruitment demographic or applicant pool information to assess outreach effectiveness, identify recruitment barriers, or inform hiring strategies for specialized appraisal roles.

Interviews further identified coordination delays and process inefficiencies that contribute to extended vacancies in specialized appraisal roles.

HR Policies and Constraints

The audit team reviewed OCFO personnel policies and procedures related to hiring, promotions, onboarding, and workforce management. Policies reviewed generally aligned with applicable EEOC, ADA, Title VII, and merit-based hiring requirements. However, workforce management practices were not consistently supported by formalized performance metrics, workforce analytics, or integrated monitoring processes. OTR also experienced operational constraints related to staffing shortages, decentralized training coordination, and limited workforce data integration, which reduced management visibility into workforce risks and hiring performance.

Retention & Workforce Sustainability

The audit team analyzed available turnover, separation, and exit interview data to evaluate workforce sustainability risks. OTR benefits from a highly experienced workforce and generally positive organizational culture; however, a significant portion of employees are approaching retirement eligibility, increasing succession and institutional knowledge risks. Exit interview analysis identified recurring themes related to workload pressures, training inconsistencies, career development limitations, and operational strain in specialized roles. In addition, workforce planning efforts were largely reactive and not fully supported by integrated workforce analytics or formal succession planning processes.

Barriers to Talent Acquisition

Interviews and document reviews identified several barriers affecting OTR's ability to attract and hire qualified appraisal staff, particularly for specialized commercial appraisal positions. These barriers included:

- Limited availability of qualified commercial appraisal candidates
- Extended hiring timelines and coordination delays
- Competition with federal and regional employers for specialized talent
- Compensation constraints for certain advanced or highly specialized roles
- Limited use of workforce analytics to evaluate recruitment effectiveness and hiring performance

Additionally, OTR did not consistently track recruitment source effectiveness, applicant demographics, turnover metrics, or time-to-hire data, limiting management's ability to evaluate hiring outcomes and proactively address recruitment challenges.

Control Identification and Assessment

Based on document review, workforce data analysis, and stakeholder interviews, Crowe identified key controls and monitoring activities supporting OTR's recruitment, hiring, onboarding, workforce development, and retention practices. Crowe evaluated these controls against the Office of Personnel Management Human Capital Framework, GAO's Standards for Internal Control in the Federal Government and human capital guidance, Equal Employment Opportunity Commission guidance, applicable merit-based hiring requirements, USPAP, and IAAO standards.

The review focused on controls intended to support timely and equitable recruitment, verification of applicant qualifications, effective onboarding and employee development, monitoring of hiring performance, and continuity of specialized commercial appraisal operations.

Key areas evaluated included human capital policies, job postings and qualification requirements, recruitment outreach, hiring-process coordination, time-to-hire monitoring, applicant and recruitment data, onboarding, compensation competitiveness, separation and retention monitoring, employee engagement, and succession planning.

Control Understanding and Limited Validation Procedures

Crowe performed limited procedures over selected hiring and workforce sustainability controls to understand their design and implementation. These procedures were not intended to provide assurance over operating effectiveness throughout the audit period.

Procedures consisted primarily of reviewing personnel policies, job postings, position descriptions, hiring and onboarding materials, workforce and separation data, and other supporting records; interviewing responsible personnel; and comparing selected practices with applicable criteria and peer information.

Crowe used nonstatistical judgmental selections and availability-based review unless otherwise noted. The two job postings and two corresponding position descriptions were selected because they represented key specialized commercial appraisal and supervisory roles. Seven interviewees were selected based on their responsibilities for executive oversight, hiring, appraisal operations, supervision, training, onboarding, and workforce continuity.

Where complete policies, documentation, or datasets were provided, Crowe reviewed the complete information available. Where complete populations or integrated datasets were not available, including time-to-hire, recruitment-source effectiveness, applicant demographic information, exit interviews, and turnover and retention data, Crowe assessed the related processes using available documentation, interviews, and corroborating evidence.

Control Area	Population / Control Universe	Selection Method	Sample Size
Human capital policies and procedures	OCFO policies governing hiring, promotion, equal employment opportunity, accommodations, onboarding, and recognition	Reviewed the complete policy documentation provided for the audit	Complete documentation provided
Commercial appraisal job postings	Job postings for commercial appraisal and supervisory positions	Judgmental selection of key specialized and supervisory roles	2 job postings
Position qualifications	Position descriptions supporting the selected commercial appraisal and supervisory postings	Judgmental selection aligned with the positions reviewed in the hiring analysis	2 position descriptions
Hiring-process documentation	Hiring-process materials from vacancy initiation through posting, referral, interview, selection, pre-employment review, and onboarding	Availability-based review of process documentation provided; a complete end-to-end flowchart was not provided	Records made available
Post-offer onboarding process	OCFO and OTR materials governing activities after candidate selection	Reviewed complete post-offer and onboarding materials provided	Complete documentation provided
Recruitment sources and outreach	Recruitment channels used for appraisal and other OTR positions, including professional associations, targeted sourcing, and job fairs	Availability-based review of documented recruitment practices and interview evidence	Recruitment methods identified; exact activity count not documented
Recruitment-source effectiveness	Applicant, interview, selection, and hire information by recruitment source	Assessed whether formal source-effectiveness measures and reporting existed	No complete analytical population available
Applicant demographic information	Applicant demographic or applicant-pool data maintained by OTR, OCFO Human Resources, or centralized systems	Assessed data ownership, availability, and evidence of use through interviews and documentation review	No dataset provided

Control Area	Population / Control Universe	Selection Method	Sample Size
Time-to-hire monitoring	Hiring actions and stage-level timelines for positions filled during FY2022–FY2024	Assessed whether standardized time-to-post, certification, interview, offer, and total time-to-hire measures existed	No complete time-to-hire dataset provided
Hiring bottlenecks and coordination	Hiring stages involving Human Resources, hiring managers, reference verification, interview scheduling, and onboarding personnel	Qualitative assessment through interviews and available process documentation	7 interviews; records made available
Commercial appraisal candidate requirements	Minimum coursework, experience, and technical requirements for selected appraisal roles	Compared selected OTR postings and position descriptions with peer requirements and professional standards	2 OTR roles
Compensation competitiveness	Salary ranges and benefits for selected commercial appraisal and supervisory roles	Availability-based comparison with regional public-sector and selected federal information	4 peer jurisdictions; selected federal comparisons
Onboarding design	District-wide orientation, OTR-specific orientation, systems training, and 30-, 60-, and 90-day onboarding tools	Reviewed complete onboarding materials provided and corroborated implementation through interviews	Complete documentation provided
Role-specific technical training	Property-specific training, mentoring, shadowing, and progressive workload assignment for appraisal staff	Judgmental and availability-based review through interviews and training documentation	Records made available; exact employee count not documented
Separation analysis	Employee separation records applicable to FY2022–FY2024	Reviewed the population contained in the separation data provided for the audit period	Complete population in dataset for audit period
Exit interview analysis	Exit interview records maintained for employees who separated during or near the audit period	Availability-based review of exit interview documentation provided	Records made available; exact count not documented
Turnover and retention monitoring	Workforce population and separation information needed to calculate standardized turnover and retention rates	Assessed whether workforce and separation data were integrated and routinely analyzed	No complete integrated dataset provided
Employee engagement	Engagement surveys, qualitative feedback, and related action-planning documentation	Availability-based review of survey materials and interview evidence	Records made available

Control Area	Population / Control Universe	Selection Method	Sample Size
Recognition and reward programs	Policies and records supporting monetary and nonmonetary recognition programs	Reviewed governing policy documentation and assessed implementation through interviews	Complete policy documentation; utilization records not documented
Hiring and retention interviews	Officials and employees responsible for hiring oversight, appraisal operations, onboarding, training, and workforce sustainability	Judgmental selection based on responsibilities and knowledge of hiring and retention practices	7 interviews
Hiring and qualification benchmarking	Public-sector jurisdictions with comparable appraisal roles and available hiring, compensation, or qualification information	Availability-based selection using similarity and data availability	4 peer jurisdictions

Findings

FINDING #7: OTR Lacks an Integrated Workforce Analytics Framework to Support Recruitment, Retention, and Workforce Planning Decisions

Significant Deficiency in Objective #3

Condition: OTR does not maintain a comprehensive, data-driven framework to monitor workforce and recruitment performance, hiring timeliness, turnover, employee engagement, staffing trends, and workforce planning risks in an integrated manner. Although OTR maintains certain human capital information, including separation data, job postings, engagement survey results, and some staffing and workload information, the documentation reviewed did not demonstrate that OTR consistently converts this information into standardized workforce analytics, dashboards, trend analyses, or management reports..

The issues described below are related components of this broader workforce analytics gap. They do not necessarily represent separate root causes; rather, they demonstrate that workforce data is not consistently collected, analyzed, integrated, and reported to support recruitment, retention, staffing, and operational decision-making.

Recruitment Analytics

OTR uses a variety of recruitment sources and outreach strategies, including professional associations, targeted sourcing by talent acquisition advisors, and participation in job fairs, including District-resident-focused events. However, the documentation reviewed did not demonstrate that OTR consistently evaluates recruitment source effectiveness, such as applicant yield, candidate quality, or hires by source. In addition, responsibility for collecting, maintaining, and sharing applicant demographic information in an aggregated and appropriate format was not clearly defined between OTR and OCFO Human Resources. As a result, OTR has limited information to assess whether recruitment strategies are effectively reaching qualified and diverse applicant pools for specialized appraisal roles.

Hiring Timeliness and Process Monitoring

OTR also does not maintain formal time-to-hire metrics or hiring performance reports. The audit team found that OTR does not consistently measure average time-to-hire, establish hiring timeline benchmarks, or routinely report hiring performance across departments. Interviews indicated that extended vacancies and hiring delays occur in practice and affect workload distribution and operational efficiency. However, the documentation reviewed did not show that OTR systematically tracks hiring cycle times, analyzes delays by hiring stage, or compares hiring performance against internal targets, peer jurisdictions, or other benchmarks. Interviews identified procedural bottlenecks, including delays in scheduling interviews, completing reference checks, and coordinating across stakeholders. However, these bottlenecks are not formally documented, tracked, or analyzed to identify recurring causes or targeted process improvements.

Turnover and Retention Monitoring

OTR maintains some separation data but does not calculate standardized turnover or retention rates or benchmark these metrics against peer jurisdictions or industry standards. The workpapers identified 24 OTR separations from 2022 through 2025, including five separations within the commercial real property tax assessment function. Of the five commercial separations, three were coded as normal retirements and two as resignations. Although this information allows OTR to identify basic separation trends, the data is not integrated with workforce size information to calculate standardized turnover or retention rates. As a result, OTR cannot readily determine whether its retention levels are competitive, whether attrition is abnormal for certain roles, or whether emerging workforce risks require corrective action.

Employee Engagement and Feedback

OTR and OCFO also collect employee engagement and feedback information, but the documentation reviewed did not demonstrate that this information is consistently incorporated into a closed-loop workforce analytics process. OCFO administered an engagement survey with more than 1,000 responses and a response rate exceeding 60 percent, indicating strong participation and a useful source of workforce information. However, OTR has not established a formalized process to ensure that engagement survey results and employee feedback are systematically analyzed, translated into action plans, assigned to responsible parties, tracked through completion, and evaluated for effectiveness. In addition, engagement survey results are not clearly tied to turnover risk assessments, succession planning, or targeted professional development initiatives.

Integration with Workforce Planning

Staffing and workload data exist, but the documentation reviewed did not demonstrate that workforce-related metrics, including vacancy trends, workload ratios, staffing adequacy, turnover, time-to-hire, recruitment source effectiveness, and employee feedback themes, are routinely integrated into strategic workforce planning, hiring performance management, or operational risk reviews.

As a result, OTR has limited visibility into hiring effectiveness, workforce risks, recruitment outcomes, workload impacts, and long-term workforce sustainability.

Criteria:

- Federal human capital standards require agencies to use workforce data, metrics, and analysis to support human capital planning and performance management. Under 5 C.F.R. § 250.201, the Human Capital Framework establishes "systems, including standards and metrics, for assessing the management of human capital." Section 250.204(a) requires agencies to use those systems, standards, and metrics to "plan, implement, evaluate and improve human capital policies and programs." The regulation further requires that agency human capital policies and programs be "based on comprehensive workforce planning and analysis," "monitor and address skill gaps…by using comprehensive data analytic methods and gap closure strategies," and hold agency leadership, managers, human capital officers, and staff accountable for effective strategic human capital management.
- 5 C.F.R. § 250.203(d) also establishes Evaluation as a human capital system that contributes to agency performance by "monitoring and evaluating outcomes of its human capital management strategies, policies, programs, and activities." In addition, 5 C.F.R. § 250.207(a) requires the Chief Human Capital Officer to use HRStat quarterly reviews to assess progress toward strategic and performance goals.
- GAO's Standards for Internal Control in the Federal Government also require management to use quality information and monitoring activities. Principle 13 states that management should use quality information to achieve the entity's objectives. Paragraph 13.04 states that management should obtain relevant data from reliable sources in a timely manner, and paragraph 13.05 states that management should process obtained data into quality information that is appropriate, current,

complete, accurate, accessible, and timely. Principle 16 states that management should establish and operate monitoring activities to monitor the internal control system and evaluate results.
- EEOC guidance also identifies applicant flow data as an important tool for examining the fairness and inclusiveness of recruitment efforts. The EEOC states that by reviewing the yield of recruitment efforts, an organization can reassess and improve its efforts to reach all segments of the population.
- Effective internal control standards require agencies to establish standardized workforce and recruitment metrics to support data-informed human capital management. Such metrics should include applicant flow and demographic data, recruitment source effectiveness, time-to-hire, vacancy rates, turnover, identified skill gaps, and workload indicators, and should be used to guide hiring decisions, workforce planning, and management oversight.

Cause: The condition occurred because ownership and accountability for workforce analytics have not been clearly defined between OTR, OCFO Human Resources, and other offices that collect or maintain relevant human capital data. Human capital data is collected across multiple processes, including recruitment, hiring, training, separations, engagement surveys, and workload monitoring. However, management has not established a documented governance structure that identifies which office is responsible for maintaining source data, analyzing workforce metrics, preparing management reports, sharing information across offices, and using the information to support workforce planning decisions.

Based on the documentation reviewed, the audit could not determine that workforce analytics has been formally assigned as a strategic management function to OTR, OCFO Human Resources, or another specific office. OTR appears to rely on multiple offices and data sources for information relevant to recruitment, hiring, separations, engagement, training, and workload planning; however, responsibility for integrating these data sources into a comprehensive workforce analytics process has not been clearly assigned.

In addition, workforce planning efforts have historically focused on addressing immediate staffing needs, vacancies, and operational demands rather than developing a formal performance measurement and analytics capability. As a result, accountability for workforce analytics has not been clearly assigned, standard metrics have not been defined, and routine reporting processes have not been established to ensure leadership receives consistent information on hiring performance, recruitment outcomes, workforce risks, and retention trends.

Effect: As a result of these conditions:

- Without a formal workforce analytics and recruitment monitoring framework, OTR cannot consistently assess the effectiveness, efficiency, or equity of its human capital practices. Specifically, OTR cannot determine which recruitment sources produce qualified applicants or hires, whether outreach strategies are reaching diverse applicant pools, or whether hiring efforts are effective for specialized roles such as commercial appraisers. This limits OTR's ability to evaluate the return on investment of recruitment activities, including professional association outreach, targeted sourcing, job fairs, and District-resident-focused recruitment events.
- The absence of formal time-to-hire metrics and bottleneck tracking limits OTR's ability to identify where delays occur in the hiring process and whether corrective actions are improving hiring efficiency. Interviews indicated that hiring delays and extended vacancies occur in practice; however, because OTR does not maintain standardized time-to-hire data or hiring-stage metrics, the audit could not quantify the average length of hiring delays, the frequency of delays by hiring stage, or the number of vacancies affected by specific bottlenecks. As a result, hiring delays and extended vacancies may continue without sufficient data to identify root causes or assign accountability for improvement.
- Because OTR does not calculate standardized turnover or retention rates or benchmark those rates against peers, management has limited ability to determine whether separation trends are normal, whether specific roles or units are at higher risk, or whether retention strategies are needed for mission-critical positions. The audit identified 24 OTR separations from 2022 through 2025, including 5 separations within the commercial real property tax assessment function. Of the 5 commercial separations, 3 were coded as normal retirements and 2 as resignations. However, because separation data was not integrated with workforce size information to calculate

standardized turnover or retention rates, OTR cannot readily determine whether these separations indicate expected attrition, elevated turnover, or a concentration of workforce risk in specific roles.
- OTR and OCFO collected employee engagement information through an engagement survey that received more than 1,000 responses and achieved a response rate exceeding 60 percent. This represents a significant source of employee feedback. However, without a closed-loop process for analyzing survey results, assigning action items, tracking corrective actions, and evaluating outcomes, recurring issues related to workload, training, career development, compensation, and supervision may not be consistently translated into measurable improvement efforts.
- Overall, the absence of reliable workforce analytics reduces OTR's ability to proactively identify workforce risks, align staffing decisions with operational needs, evaluate recruitment and retention strategies, and support long-term workforce sustainability. Where data was available, the audit identified measurable workforce activity, including 24 separations from 2022 through 2025 and more than 1,000 engagement survey responses. However, because OTR has not established standardized metrics for recruitment effectiveness, time-to-hire, turnover, retention, and engagement follow-up, the audit could not fully quantify the operational impact of these conditions.

Recommendation: We recommend that OTR with the possible coordination with OCFO Human Resources:

- Establish a workforce analytics framework to monitor recruitment, hiring, retention, employee feedback, staffing, and workforce planning risks;
- Track key workforce metrics, including vacancies, time-to-hire, recruitment source effectiveness, turnover, retention, engagement survey follow-up, and workload indicators;
- Define roles and responsibilities for collecting, analyzing, sharing, and using workforce data; and
- Conduct periodic management reviews of workforce analytics to inform recruitment, retention, training, workload, and succession planning decisions.

Management's Response: Management disagrees with this finding. The auditor is correct that workforce metrics are not tracked internally by OTR Real Property Tax Administration. These metrics are collected, monitored, and tracked by the OCFO's Office of Human Resources, which is the central office responsible for managing recruitment performance, hiring, timeliness, and turnover metrics, while providing staffing trend analysis and staffing strategies in coordination with OTR Real Property Tax Administration. OCFO's Office of Human Resources maintains a regular, established cadence with OTR Real Property Tax Administration to support workforce planning. Through this partnership, recruitment sources are aligned with hiring strategies that are used to reach a qualified, diverse pool of candidates.

OCFO's Office of Human Resources houses the data used to track key metrics including vacancies, time-to-hire, recruitment source effectiveness, turnover, and retention. This data is reviewed and discussed during collaborative planning sessions to evaluate what is working and adjust hiring strategies as needed. OCFO's Office of Human Resources owns the responsibility for collecting, analyzing, and maintaining this data. OCFO's Office of Human Resources conducts periodic reviews of these workforce analytics, leveraging the data to drive recruitment, retention, and workforce planning decisions during regular discussions with OTR Real Property Tax Administration.

Planned Corrective Action: Not applicable.

Target Completion Date: Not applicable.

Auditor's Rebuttal: The finding is unchanged. Management's response states that the Office of Human Resources (OHR) collects, monitors, and reviews workforce metrics, including recruitment performance, hiring timeliness, turnover, retention, staffing trends, and workforce planning, and that these metrics are regularly discussed with OTR Real Property Tax Administration. However, during the audit, despite multiple requests for supporting documentation, management did not provide evidence demonstrating that these workforce analytics were systematically maintained, analyzed, or used in a manner consistent with the activities described in its response.

The audit acknowledges that certain workforce data exists within OTR and OCFO Human Resources. As stated in the finding, the issue is not the absence of individual data elements, but rather the absence of documented, standardized workforce analytics and evidence demonstrating that recruitment, hiring, retention, engagement, and workforce planning metrics are consistently integrated into a comprehensive management framework. The documentation provided during the audit did not demonstrate standardized dashboards, trend analyses, management reports, documented performance metrics, or other evidence showing routine monitoring and evaluation of workforce performance.

While management indicates that OHR is responsible for collecting and maintaining these metrics and conducts periodic reviews with OTR, no documentation was provided during the audit to substantiate these activities. Accordingly, the audit conclusions are based on the evidence available during fieldwork and remain unchanged.

Therefore, the recommendation remains appropriate to establish and document a formal workforce analytics framework, clearly define governance and accountability for workforce analytics, and maintain evidence demonstrating that workforce metrics are routinely monitored and used to support workforce planning and management decision-making.

FINDING #8: Succession Planning and Knowledge Transfer Are Not Formalized

Significant Deficiency in Objective #3

Condition: OTR has a highly experienced appraisal workforce, but it does not maintain a formal succession planning program or structured knowledge transfer process to prepare for anticipated workforce transitions. Although OTR benefits from strong employee tenure, institutional knowledge, and informal mentoring, the documentation reviewed did not demonstrate that OTR has established a formal process to identify mission-critical positions, assess retirement-related workforce risks, document institutional knowledge, or prepare employees to assume key operational responsibilities.

The audit team's review of staffing and experience data found that OTR's appraisal workforce has substantial technical experience. Commercial appraisal staff averaged approximately 22 years of appraiser or real estate experience, and Residential appraisal staff averaged approximately 25 years of appraiser or real estate experience. However, a significant portion of the workforce is late-career, including approximately 25 percent of Commercial staff and 41 percent of Residential staff with 30 or more years of experience. These experience levels indicate that a material portion of OTR's appraisal workforce may be approaching retirement eligibility or could otherwise transition out of key roles within the near to medium term. However, the documentation reviewed did not include formal retirement eligibility projections, retirement-risk analyses, or succession readiness assessments by role, unit, property type, or critical function.

In addition, many Commercial staff have relatively short tenure in their current positions, with a median time in position of approximately 1.4 years, increasing reliance on training, peer review, and supervisory oversight to maintain valuation consistency.

Separation data further supports the need for proactive succession planning. From 2022 through 2025, OTR had 24 separations, including five separations within the commercial real property assessment function. The five commercial separations were concentrated among long-tenured staff with an average tenure of approximately 26 years. Of these five commercial separations, three were coded as normal retirements and two as resignations. This means that 60 percent of commercial separations reviewed during the period were retirement-related. This pattern indicates that workforce transitions are occurring among experienced personnel whose knowledge and technical expertise are important to appraisal operations.

Interviews also identified succession planning and knowledge transfer as recurring workforce risks. Interviewees noted that experienced staff are critical to operations, supervisors rely heavily on experience and professional judgment, and a wave of retirements is a concern. Interview feedback indicated that succession planning is recognized as important but has not been fully formalized, workforce planning is largely reactive and driven by vacancies and operational needs, and there is no fully integrated strategy linking recruitment, training, retention, and succession planning. It was also stated that succession planning conversations are ongoing due to anticipated retirements, but a unified enterprise-wide plan has not yet been formalized.

In addition, while OTR has formalized broad Commercial and Residential staff assignments, available data does not systematically identify more detailed property-type specialties, prior roles, or designated back-up coverage for critical property classes or geographic areas. This limits OTR's ability to demonstrate that specialized institutional knowledge is documented and that continuity plans exist for absences, turnover, retirements, or peak appraisal and appeals periods.

As a result, operational continuity and workforce sustainability depend heavily on long-tenured employees, supervisory judgment, informal mentoring, and decentralized knowledge-sharing practices rather than a documented succession planning and knowledge transfer framework.

Criteria:

- Federal human capital and internal control standards require agencies to plan for workforce continuity, succession, and knowledge management. Specifically, 5 C.F.R. § 250.204(a) requires agencies to use human capital systems, standards, and metrics to "plan, implement, evaluate and improve human capital policies and programs." These policies and programs must be "based on comprehensive workforce planning and analysis," must "recruit, hire, develop, and retain an effective workforce, especially in the agency's mission-critical occupations," must "ensure leadership continuity by implementing and evaluating recruitment, development, and succession plans for leadership positions," and must "implement a knowledge management process to ensure continuity in knowledge sharing among employees at all levels within the organization."
- In addition, GAO's Standards for Internal Control in the Federal Government, Principle 4, states that management should demonstrate a commitment to recruit, develop, and retain competent individuals. Paragraph 4.06 states that management should define "succession and contingency plans for key roles to help the entity continue achieving its objectives." Paragraph 4.07 further provides that management should define succession plans for key roles, choose succession candidates, and train succession candidates to assume those roles. GAO also states that documentation provides a means to "retain organizational knowledge and mitigate the risk of having that knowledge limited to a few personnel."
- Accordingly, OTR should have a documented succession planning and knowledge transfer process that identifies mission-critical roles, assesses workforce and retirement-related risks, documents institutional knowledge, and prepares employees to assume key operational responsibilities.

Cause: The condition occurred because OTR has not established succession planning and knowledge management as formal components of its strategic workforce planning process. Management's workforce planning efforts have historically focused on addressing immediate operational needs, vacancies, reassessment deadlines, appeals workload, and hiring challenges rather than developing a long-term succession and knowledge transfer strategy.

In addition, responsibility for succession planning, knowledge transfer, and workforce continuity has not been clearly assigned across HR, the Tax Academy, RPTA leadership, supervisors, and operational units. While OTR has taken steps to strengthen onboarding and training, these efforts have not yet been integrated into an enterprise-wide succession planning framework that identifies mission-critical roles, assesses retirement risk, documents specialized knowledge, prepares succession candidates, and monitors succession readiness over time.

Effect: Without a formal succession planning and knowledge transfer framework, OTR faces increased risk that critical institutional knowledge and technical expertise may be lost as experienced employees retire or separate from the organization. This risk is heightened because a significant portion of appraisal staff have 30 or more years of experience, recent commercial separations were concentrated among long-tenured employees, and interviews indicated that operations depend heavily on experienced staff, supervisory judgment, and informal knowledge sharing.

The audit did not identify a formal inventory of mission-critical appraisal positions, specialized functions, or designated back-up coverage. However, based on position descriptions, staffing data, and interviews, workforce departures would most likely affect roles and functions that require specialized technical judgment, historical property knowledge, supervisory review, or direct support for contested assessments. These include Commercial Appraisers, Senior or Supervisory Appraisers, Chief Appraiser functions, and staff responsible for complex commercial valuation work, appraisal review, appeal preparation and support, litigation-related analysis, property-type-specific valuation, reassessment cycle coordination, and quality review.

The absence of documented succession plans may also make it more difficult for OTR to prepare staff for specialized appraisal responsibilities, including complex commercial valuations, appeal support, litigation-related work, quality review, and property-type-specific analysis. As experienced personnel leave, training and onboarding burdens may increase for supervisors and senior staff, particularly where newer staff have shorter tenure in their current positions or require additional mentoring to reach full productivity.

In addition, the lack of documented back-up coverage, specialty mapping, and knowledge transfer procedures may reduce operational resilience during absences, vacancies, retirements, reassessment periods, and peak appeals cycles. These conditions may affect appraisal quality, consistency, timeliness, taxpayer service, and OTR's ability to sustain long-term workforce capacity.

Recommendation: We recommend that OTR, in coordination with OCFO Human Resources and RPTA management:

- Establish a formal succession planning and knowledge transfer process for mission-critical appraisal functions;
- Identify critical roles, specialized functions, retirement risks, and potential gaps in back-up coverage;
- Develop knowledge transfer, mentoring, cross-training, and staff development strategies for key appraisal responsibilities; and
- Periodically review succession readiness and integrate succession planning with recruitment, onboarding, training, and workload management.

Management's Response: OTR and OCFO agree with the need for formal succession planning process in RPTA.

Planned Corrective Action: OTR and OCFO

Target Completion Date: OTR Executive Leadership in coordination with the Executive Director of the OCFO's Office of Human Resources will establish a formal succession planning process.

Auditor's Rebuttal: We acknowledge management's agreement with the finding and planned corrective actions. Because the corrective actions had not been implemented during the audit period, the finding remains unchanged.

Section IV – Oversight

Objective

This section addresses Objectives 5 and 6 of the audit, which required an evaluation of oversight and fraud-related activities associated with the Office of Tax and Revenue's (OTR) commercial real property assessment function. Specifically, the Statement of Work required an assessment of (1) the Office of Integrity and Oversight's (OIO) role in promoting transparency, accountability, and effectiveness through oversight of OTR operations, and (2) the Criminal Investigation Division's (CID) effectiveness in detecting and responding to fraudulent activity that could undermine the integrity of the District's tax system.

Methodology / Analysis Performed

To address the audit objectives related to oversight and fraud investigation activities associated with the Office of Tax and Revenue’s commercial real property assessment practices, we conducted interviews, reviewed policies and procedures, analyzed supporting documentation, and evaluated the governance, oversight, management, and investigative activities performed by the Office of Oversight and Integrity, Audit and Criminal Investigation Division, Office of the Chief Financial Officer, Office of the DC Auditor and the District of Columbia Office of the Inspector General during the audit period.

The organizations discussed in this section perform distinct governance, oversight, management, and investigative functions. For purposes of this report:

- Office of Integrity and Oversight (OIO), an office within OCFO, provides independent internal audit, monitoring, and investigative services to evaluate internal controls and operational compliance.
- Criminal Investigation Division (CID) investigates suspected tax fraud and criminal violations and is not responsible for operational oversight of commercial property assessment activities.
- Office of the Chief Financial Officer (OCFO) provides management oversight and is responsible for establishing and operating internal controls over OTR operations.
- Office of the Inspector General (OIG) provides independent external oversight through periodic audits and investigations authorized by District law.
- Office of the DC Auditor (ODCA) provides legislative oversight by conducting audits and studies on behalf of the Council of the District of Columbia.

Office of Integrity and Oversight (OIO)

To evaluate the Office of Integrity and Oversight’s (OIO) role in overseeing OTR operations, we requested and reviewed policies, procedures, manuals, and related documentation governing OIO oversight activities. Specifically, we reviewed the OIO Audit Handbook and the OIO Internal Security Division Procedure Manual to identify OIO’s responsibilities related to internal control oversight, audit reporting, monitoring activities, corrective action follow-up, and governance processes.

We conducted interviews with key OIO personnel, including the Executive Director of OIO, the Director of Internal Audit, and the Director of the Internal Security Division, to obtain an understanding of OIO’s oversight responsibilities, monitoring processes, corrective action procedures, and involvement in matters related to OTR commercial real property assessments.

Additionally, we requested and reviewed documentation related to monitoring activities performed by OIO during the audit period, including annual control assessments and audits related to OTR operations. We evaluated whether monitoring activities addressed controls relevant to commercial real property assessment practices and assessed the extent to which OIO’s oversight activities aligned with principles reflected in the Uniform Standards of Professional Appraisal Practice (USPAP) and International

Association of Assessing Officers (IAAO) standards related to governance, documentation, quality assurance, independence, and corrective action monitoring.

Based on the results of our audit procedures, we determined that OIO is exercising appropriate oversight over the RPAD/RPTA through internal audit and monitoring activities as part of OCFO's internal governance framework. OIO has two methods of oversight: audits and investigations. Investigations were primarily related to individual misconduct and not specifically related to the real property assessment practice. However, the audit division conducts audits over specific processes within RPTA and RPAD. OIO's oversight activities are primarily focused on enterprise-wide governance and internal control monitoring activities rather than specifically focused on commercial properties. OIO management informed Crowe that they avoid performing audits over the commercial real property assessment practice to avoid duplicative work with this audit. Crowe found that OIO maintains documented policies and procedures that provide comprehensive guidance on completing audits and following up on corrective actions.

Additionally, Crowe noted that OIO's oversight activities generally align with the governance and internal control principles reflected in the USPAP and IAAO standards, particularly with respect to organizational independence, documentation standards, and corrective action monitoring and follow-up. We also noted that OIO's oversight framework incorporated key characteristics of an effective internal control monitoring framework including establishment of a baseline, ongoing monitoring, and evaluation and documentation of results. These activities demonstrate that OIO maintains a structured oversight framework designed to monitor governance and internal control activities across OCFO agencies, including OTR, at an enterprise-wide level.

Criminal Investigation Division (CID)

To determine whether the Criminal Investigation Division (CID) was effectively detecting and responding to fraudulent behavior related to tax administration, we interviewed leadership and staff within the Audit and Criminal Investigations Administration and CID, including the Director of the Audit and Criminal Investigations Administration, the Chief of Criminal Investigations, a Lead Criminal Investigator, and a Data Analyst. Through these interviews, we obtained an understanding of CID's fraud detection methods, investigative processes, staffing structure, training practices, and coordination with external law enforcement agencies.

We inquired about methods used to detect suspected fraud, including referrals from law enforcement agencies and internal analytical processes performed through the Return Integrity Unit. We also requested and analyzed data related to CID case management during our audit period, such as number of cases opened and closed, caseload per investigator, authorized and actual staffing levels, etc.

Based on the results of our audit procedures, we determined that CID is not responsible for operational oversight of RPAD/RPTA. Our review determined that the Criminal Investigation Division (CID) maintains investigative processes intended to identify and respond to tax-related fraud and criminal violations. However, CID's activities during the audit period were not focused on commercial real property assessment practices and did not include monitoring or investigative activities specific to OTR's real property assessment operations. According to CID management and the division's stated responsibilities, CID's primary mission is to investigate suspected tax fraud and criminal violations rather than to provide operational oversight or monitoring of RPAD/RPTA assessment activities. While CID did not perform oversight activities over RPAD/RPTA during the audit period, we determined that such oversight is outside CID's assigned responsibilities and there is no statutory requirement for them to provide oversight over RPAD/RPTA.

According to CID management, the division primarily identifies potential fraud through:

- Referrals from external law enforcement agencies and informants; and

Analytical reviews performed by the Return Integrity Unit (RIU).

CID officials stated that referrals may originate from agencies such as the Internal Revenue Service (IRS), the U.S. Attorney's Office, the Office of the Attorney General, and other law enforcement partners. CID also maintains an information-sharing arrangement with the IRS. CID focuses their efforts on these cases, which are more commonly related to identity theft, tax evasion, refund fraud and false filings.

As part of our audit procedures, we requested certain data fields related to the CID. Based on documentation provided, CID case management information was manually compiled using Excel-based records maintained by CID personnel. According to CID management, data collection practices are limited due to the sensitive and confidential nature of investigations.

As a result, certain performance metrics were unavailable or incomplete, including:

- Joint investigation activity;
- Actual tax collections attributable to investigations; and
- Comprehensive historical financial recovery information.

These limitations reduced the availability of reliable performance information related to CID investigative outcomes. As a result, CID's ability to systematically monitor and track fraud allegations may be limited.

Based on interviews and documentation reviewed, we determined that CID's activities were focused on tax fraud investigations and criminal enforcement activities rather than oversight of commercial real property assessment operations. CID's role is investigative rather than operational or management oversight.

CID officials stated that the Audit Division does not audit real property taxes and that CID investigative activities are not designed to monitor or evaluate OTR's commercial real property assessment practices. Accordingly, we determined that procedures related to testing controls over commercial real property assessment processes were not applicable to CID operations.

Office of the Chief Financial Officer (OCFO)

Crowe interviewed representatives of the Office of the Chief Financial Officer (OCFO), including the Chief of Staff and the Chief Risk Officer to obtain an understanding of OCFO's oversight responsibilities, fraud risk management activities, and internal control environment related to OTR operations and the commercial real property assessment function.

During interviews, OCFO officials emphasized that fraud prevention and risk mitigation are organization-wide priorities and stated that the OCFO maintains a robust set of controls intended to reduce fraud risk and support effective operations. OCFO officials also described several governance mechanisms intended to promote ethical conduct and accountability. Additionally, OCFO officials stated that the organization maintains a zero-tolerance approach toward fraud and identified risk management and fraud prevention as strategic priorities within the agency.

According to OCFO management, the Office of the Chief Risk Officer (OCRO) utilizes a three-phase internal control framework designed to evaluate and monitor controls related to OTR operations, including controls associated with real property tax refunds.

The three-phase approach includes:

- Annual reviews of the control environment and risk control matrices;

Monthly control testing performed within operational divisions; and
Monitoring and validation of corrective action plans by OCRO and OIO.

In addition, OCFO officials described several system-based controls intended to support the integrity of the commercial real property assessment process, including:

- Role-based access controls within the CAMA and MITS systems;
- Tiered approval processes;
- Monthly user access reviews; and
- Nightly reconciliations between systems to verify data completeness and accuracy.

Corrective action plans (CAPs) are developed when control failures are identified. OCRO monitors remediation activities, while OIO performs validation activities through testing and sampling procedures. In addition, OCFO officials described processes used to evaluate previously identified deficiencies and audit recommendations. Management stated that findings are reviewed to determine whether the organization agrees with the identified issue, whether remediation is necessary, and what resources are required to implement corrective actions. According to management, implementation timelines may vary depending on the complexity of remediation activities.

Crowe also reviewed documentation provided by OCRO, including risk control matrices, testing status reports, and corrective action plans associated with refund control testing activities.

The majority of OCFO monitoring activities identified during the audit period were focused on refund processing controls, system access controls, and broader internal control processes applicable across OTR operations. Although these activities were not specifically designed to evaluate technical appraisal practices, they collectively demonstrate that OCFO maintains governance, monitoring, and fraud risk management processes intended to support accountability and integrity within OTR operations, including the commercial real property assessment function.

Based on the procedures performed, Crowe determined that OCFO maintains governance, internal control, and fraud risk management processes intended to support oversight and accountability within OTR operations. OCFO's activities primarily focus on enterprise-wide risk management, monitoring of internal controls, corrective action oversight, and fraud prevention activities. Crowe did not identify any matters related to OCFO that rose to the level of a reportable audit finding within the scope of our procedures.

Office of the DC Auditor (ODCA)

Crowe interviewed the District of Columbia Auditor (DC Auditor) to obtain an understanding of the Office of the District of Columbia Auditor's (ODCA) legislative oversight responsibilities related to OTR operations and commercial real property assessment activities.

Based on discussions with ODCA leadership, Crowe determined that ODCA's role primarily involves conducting performance audits and oversight activities for the Council of the District of Columbia. According to the DC Auditor, ODCA performs work related to OCFO and OTR operations periodically, including statutorily required reviews associated with the Real Property Tax Appeals Commission (RPTAC). According to ODCA leadership, prior audit work identified challenges related to coordination and communication between OCFO and mayoral agencies, particularly in connection with administration of vacant and blighted property programs that affect property tax classifications and assessments.

ODCA leadership stated that the office also performs follow-up activities related to prior audit recommendations through an annual recommendation compliance reporting process that tracks implementation status over a multi-year period.

Office of the Inspector General

Crowe met periodically with representatives of the District of Columbia Office of the Inspector General (OIG) throughout the course of this engagement. As the District's independent Inspector General, OIG is responsible under District law for providing independent oversight through audits, inspections, investigations, and other reviews intended to promote economy, efficiency, effectiveness, and accountability across District government operations. OIG is not responsible for the day-to-day operational oversight or management of OTR.

For purposes of this engagement, OIG's role was to commission and oversee this statutorily required performance audit of OTR's commercial real property assessment function. OIG personnel informed Crowe that, during the audit period, OIG had not conducted additional audits, inspections, or reviews specifically related to OTR's commercial real property assessment activities beyond this recurring audit engagement.

Interagency Coordination

Crowe evaluated the extent of interagency coordination related to oversight, fraud prevention, and risk management activities associated with OTR operations and commercial real property assessment practices.

Based on interviews and documentation reviewed, Crowe noted coordination among management, oversight, audit, and investigative entities consistent with their respective statutory responsibilities.

CID described formal coordination with external law enforcement and regulatory agencies, including the Internal Revenue Service (IRS), the U.S. Attorney's Office, the Office of the Attorney General, and other investigative partners. CID also maintains a Memorandum of Understanding with the IRS to facilitate information sharing related to tax fraud investigations.

Within OCFO, coordination occurs among OCRO, OIO, and operational divisions through internal control monitoring, corrective action processes, and validation activities associated with enterprise-wide governance and risk management functions.

ODCA leadership identified prior instances in which coordination and communication challenges existed between OCFO and mayoral agencies and described ongoing oversight coordination among ODCA, OIG, OIO, and OCFO related to audit follow-up and governance activities.

Overall, Crowe determined that coordination mechanisms exist among oversight, risk management, and investigative entities; however, the nature and extent of coordination varied depending on the entity's responsibilities and operational focus.

Results

Based on the procedures performed, Crowe did not identify evidence of noncompliance, significant control deficiencies, or other matters requiring reporting as audit findings related to the oversight and investigative activities within the scope of this review.

Our procedures indicated that the governance, management oversight, independent oversight, legislative oversight, and investigative mechanisms established by the Office of Integrity and Oversight (OIO), Office of the Chief Financial Officer (OCFO), Office of the District of Columbia Auditor (ODCA), Office of the Inspector General (OIG), and Criminal Investigation Division (CID) were functioning as designed, in all significant respects, within their respective statutory authorities and organizational responsibilities.

We also observed that these organizations perform complementary functions rather than duplicative responsibilities. Specifically, OCFO provides management oversight and enterprise risk management; OIO provides independent internal audit and monitoring within OCFO; OIG provides independent external oversight through periodic audits and investigations; ODCA provides legislative oversight on behalf of the Council of the District of Columbia; and CID investigates suspected tax fraud and other criminal violations. Collectively, these activities contribute to the governance, accountability, and integrity of OTR's commercial real property assessment function.

Accordingly, we did not identify any reportable findings related to the oversight activities evaluated as part of Objectives 5 and 6.

Section V – Prior Recommendations

In addition to the formal performance audit objectives detailed on page 4, Crowe was tasked as part of the engagement to conduct follow-up procedures related to recommendations issued as part of the prior OIG Reports No. 22-1-25AT and 16-1-14AT. This section addresses the contract requirement to evaluate the implementation status of recommendations issued in prior engagements of OTR's commercial real property assessment function. The review assessed whether corrective actions taken by management adequately addressed previously identified deficiencies and whether recommendations from OIG Reports No. 22-1-25AT and 16-1-14AT were fully implemented, partially implemented, or not implemented.

Methodology / Analysis Performed

To evaluate the status of recommendations issued in OIG Report No. 22-1-25AT and OIG No. 16-1-14AT, Crowe performed a follow-up review of prior audit findings and management corrective actions. Crowe developed an inventory of all prior recommendations, identified the offices and individuals responsible for implementation, and conducted interviews with responsible personnel to obtain an understanding of corrective actions taken since the issuance of the prior report.

Crowe requested and reviewed supporting documentation to assess whether corrective actions had been designed, implemented, and, where applicable, were operating effectively. Procedures included evaluating the adequacy of revised policies, procedures, controls, monitoring activities, training programs, and other remediation efforts. For recommendations that management disagreed with, Crowe evaluate whether these recommendations were still relevant or overcome by events in the current period. Based on the evidence obtained, Crowe assessed the implementation status of each recommendation and determined whether the underlying issues had been adequately addressed. Recommendations were classified as fully implemented, partially implemented, or not implemented based on the extent to which corrective actions were supported by documentation and demonstrated evidence of implementation.

Status of Prior Recommendations

Crowe summarized the current status of the prior recommendations in the chart below. Our detailed analysis of each recommendation can be found on the following pages:

Prior Report	Fully Implemented	Partially Implemented	Not Implemented	Total
OIG Report No. 16-1-14AT	6	2	2	**10**
OIG Report No. 22-1-25AT	11	12	10	**33**
Total	**17**	**14**	**12**	**43**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 1	The 2017 report noted that regular or periodic self- assessments of internal control risks underlying the commercial real property assessment process are not conducted by the Real Property Tax Administration (RPTA).	We recommend that RPTA embark on a comprehensive and iterative process of identifying and analyzing risks (including internal controls risks) to achieving its objectives pertaining to the commercial real property assessment process.	Agreed - The OCFO agrees with this finding. To date, OCFO management has determined that the most significant risks in the overall commercial real property process relate to real property refunds. As a result, the OCFO established extensive internal controls relating to real property refunds, and regularly assesses the validity and effectiveness of these controls. Although OCFO continues to believe that the risk in the commercial real property assessment process is relatively low, as a result of the above finding, the OCFO has initiated an effort to identify additional controls for coverage of the commercial real property assessment process. These controls will be included in the FY 2017 internal control test program (IC). The OCFO’s IC program employs a three phased approach to ensuring the effective operation and design of internal controls. First, on a semi-annual basis, the Office of the Chief Risk Officer (OCRO) reviews the control environment with process owners through the risk control matrices. OCRO looks to identify any new or obsolete controls and improvements needed in the process for each division. Second, quarterly controls are evaluated by control testers within the division and corrective action plans (CAP) developed. Third, OCRO reviews and monitors these CAPs for remediation and the Office of Integrity and Oversight performs a detailed validation through sampling of controls evaluated during the period. The Commercial Real Property Assessment Division will now be included in each phase of the IC program and tested quarterly.	**Fully Implemented –** OCFO established internal control related to real property refunds. The validity and effectiveness of those controls are regularly assessed Office of the Chief Risk Officer (OCRO) reviews the control environment and risk matrices annually Controls are evaluated monthly and corrective action plans are developed. OCFO reviews and monitors corrective action plans. However, Crowe requested supporting documentation (corrective action plans) but the OCRO was unable to provide any that were developed within the audit period. The CRO was able to provide support for FY2025, so the control is operating now, but was not during our audit period.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 2	The 2017 report noted that RPTA does not assess the quality of internal controls over the commercial real property assessment process over time.	We recommend that RPTA design and implement effective ongoing evaluations, separate evaluations, or a combination of the two. In determining whether separate evaluations are needed, RPTA management should consider the nature of changes occurring within the organization and their associated risks and the competence and experience of personnel implementing controls, as well as the results of ongoing monitoring. Ultimately, management must use judgement in deciding how often separate evaluations are necessary to have reasonable assurance that the system of internal control is operating effectively. The greater the effectiveness of ongoing monitoring, the lesser is the need for separate evaluations. We consider a combination of separate and ongoing monitoring evaluations to be optimal to ensure that controls remain effective over time.	Agreed - The OCFO agrees with this finding with the exception of the CAMA system. The OCFO will strengthen internal controls by expanding monitoring activities to Commercial Real Property Assessment division. The OCFO has initiated a comprehensive review of additional controls to validate coverage of the Commercial Real Property Assessment process. Controls have been identified and will be included in the FY 2017 internal control test program. Testing of controls will occur quarterly. Internal controls are inherent in the CAMA system and are governed by the Office of the Chief Information Officer and the CAMA vendor. Additionally, the CAFR, IT Audit of controls and overall internal control assessment are performed annually.	**Fully Implemented –** OCFO established internal control related to real property refunds. The validity and effectiveness of those controls are regularly assessed Office of the Chief Risk Officer (OCRO) reviews the control environment and risk matrices annually Controls are evaluated monthly and corrective action plans are developed. OCFO reviews and monitors corrective action plans. However, Crowe requested supporting documentation (corrective action plans) but the OCRO was unable to provide any that were developed within the audit period. The CRO was able to provide support for FY2025, so the control is operating now, but was not during our audit period.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 3	The 2017 report noted that no periodic fraud risk assessments of the commercial real property assessment process are performed.	We recommend that RPTA conduct periodic comprehensive fraud risk assessments to identify various ways in which fraud and misconduct can occur. It must assess specific areas where fraud might exist and the likelihood of its occurrence and potential impact. This should include considering how employees might circumvent or override controls intended to prevent or detect fraud as part of the identification and evaluation of entity-wide fraud controls. A consideration of the incentives, pressures, and opportunities to commit fraud and attitudes or rationalizations to justify the fraudulent actions should also be undertaken as part of this process.	Disagreed - The OCFO disagrees with this finding. A risk assessment was conducted in 2008-2009 by Deloitte Consulting. Further, as part of the annual CAFR audit process, a risk assessment is performed of the entire District that evaluates internal controls and fraud risks. Additionally, the OCFO, in support of several strategic objectives (#2 – Create a Culture of Continuous Improvement, #3 - Improve Transparency and Quality of Information, and #4 - Effectively Manage Risk and Prevent Fraud), has engaged Grant Thornton (GT) to work with the Office of the Chief Risk Officer (OCRO) to complete a comprehensive risk assessment agency-wide, currently in Phase 1 (focusing on OFT, OFOS, and OTR-Real Property Administration). This assessment focuses on fraud risk. The OCRO will review the analysis and the current internal control inventory from a fraud risk perspective to ensure that any gaps, should they exist, are addressed.	**Not Implemented –** OCFO stated that they plan to implement this during FY2026.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 6	The 2017 report noted that permit data received from DCRA is scrubbed by a CAMA Specialist prior to inputting the data into CAMA. During the data scrub, the CAMA Specialist amends or removes data that, in the Specialist's judgment, is unlikely to materially impact the pertinent commercial properties' assessed values. Data that is judgmentally discerned to be incorrect, incomplete, improperly formatted, or duplicated is also cleansed. We found no evidence that a Supervisor or another appraiser reviewed the scrubbing of data prior to incorporating the cleansed data into CAMA. Also, data input into CAMA is not reconciled with data received from DCRA.	We recommend that: • A Supervisor or another appraiser perform a review of the scrubbed data to ensure that only data that doesn't meet the criteria established by the code is omitted and that no unjustifiable manipulation of data occurred. Evidence of this review should be maintained. • RPTA periodically perform a reconciliation of data input into CAMA with data sourced from DCRA.	Agreed - The OCFO agrees with this finding. OTR met with representatives from DCRA's Permit Center on Tuesday, November 8, 2016 to discuss ways in which DCRA may provide more useful data related to building permits, permits made final and certificates of occupancy as a monthly deliverable to OTR, thus eliminating the OTR CAMA specialist's need to scrub raw permit files. DCRA's file would be directly uploaded to OTR's CAMA system for review by the appraisal staff. OTR would also save these file transmissions for a reasonable period of time, to ensure integrity of the process.	**Fully Implemented –** Crowe obtained the permit working guide that outlines the review process and reviewed the source data. Crowe concludes that the intent of the prior recommendation has been sufficiently addressed. The control design and implementation adequately mitigate the risks the recommendation was intended to address.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 9	We noted that RPTA does not verify the continuing validity of a property's exempt status, nor does it verify owner-reported mixed use ratios.	We recommend that RPTA periodically verify the status of exempt properties and mixed-use properties ratios.	Agreed - The OCFO agrees with this finding insofar as it pertains to properties already exempt and receiving the mixed-use classification. OTR stresses that the Exemption Unit already conducts field inspections of all new exemption applications, where an existing exempt property's characteristics or uses may have changed as indicated on the annual FP-161 filing, or where a property has been referred to audit from an appraiser, Exemption Specialist, taxpayer or other sources. OCFO further stresses that initial mixed use applications and irreconcilable reported changes in mixed-use applications are field inspected for accuracy as well.	**Fully Implemented –** Properties are reviewed annually either in-person or using online tools.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 11	In our efforts to validate CAMA's most recent security assessment to determine whether or not the security assessment is up-to-date, appropriately documented, approved by management, and supported by testing, we noted that the OCFO did not adequately document its security assessment to comply with FISCAM, FISMA and NIST requirements or implement a Plan of Action or identify milestones to resolve any weaknesses or threats to system security.	We recommend that the OCFO appropriately document RPTA's CAMA security assessment in accordance with the requirements of NIST 800- 53/A and FISCAM AS-1.2.1. The assessment should be approved by management and supported by rigorous testing.	Agreed - OCFO agrees with this finding. In conjunction with our Modernized Integrated Tax systems (MITS) implementation's System Test and Evaluation effort for Rollout 3 (Scheduled for Fall 2017), an internal or external party will be tasked to perform a security assessment, in line with NIST 800-53 requirements and Federal information systems control audit manual (FISCAM) methodology. We expect to complete a Security Assessment by November 2017.	**Not Implemented –** A security assessment is performed on their Modern Integrated Tax System (MITS) but not in the CAMA system.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 13	We noted that RPTA predominantly uses the Income Method to assessing commercial properties. This approach entails the use of income and expenditure data reported by taxpayers. We saw no evidence that RPTA verifies this data by auditing pertinent accounting records and source documents from the taxpayer even though such verification may be necessary in some cases.	We recommend that: • RPTA verify the Income and Expense forms submitted by taxpayers by obtaining taxpayer accounting records and source documentation. Evidence of such verification should be retained for an appropriate period of time; and • Independent audits of Income and Expense statements be conducted annually on a sample basis.	Disagreed - This finding is inaccurate and we strongly disagree. OTR already consistently examines the income & expense statements submitted by taxpayers. The income and expense forms are used in conjunction with the valuation of commercial property and as such are reviewed by the commercial appraisal staff. If the staff identifies concerns, we address the issue with the owner and/or filer of the forms; however, the regulations do not authorize OTR to verify or examine information by obtaining the taxpayer’s accounting records and source documentation, as suggested in the recommendation of this finding. DC Municipal Code 9-332.3 states that when a form has not been accurately completed, OTR shall inform the taxpayer, in writing, that the form must be accurately completed and resubmitted to OTR. This is the recourse available to an appraiser suspecting a form has not been accurately or completely filed.	**Fully Implemented –** Crowe determined that OTR's current review procedures are consistent with its regulatory authority. While OTR reviews Income and Expense submissions and follows up on identified discrepancies, the recommendation to obtain taxpayer accounting records and source documentation is not supported by OTR's existing authority.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 14	We noted that RPTA utilizes income and expense data that is two (2) years old in its assessments for any given year. This data may not be reflective of current market realities. For example, tax year 2017 assessments are based on tax year 2014 income and expense data.	We recommend that RPTA streamline the income and expense reporting and analysis process to ensure current assessments are based on prior year income and expense data.	Agreed - The OCFO agrees with this finding; however, this issue has been previously identified by the OIG in the September 2012 performance report conducted by Almay Gloudemans, Jacobs & Denne. Legislative action is necessary to modify the law establishing the filing calendar and the dates for commercial revaluation notices. Even with these modifications that would allow OTR to use the most current income and expense data, the data would be one year old (as opposed to the current two year old data). Until the DC Council approves such legislative changes, OTR will continue to time adjust the income and expense data, making it more suitable for valuation purposes.	**Partially Implemented –** Changing the legislative requirements is outside of OTR's control; however, OTR is pursuing municipal regulation changes in an effort to modify the assessment calendar.
16-1-14AT(a) - 15	We noted that RPTA's Appeals and Litigation Unit has been served two "show cause" orders by a D.C. Superior Court Judge due to a significant backlog in RPTA filing settlement memoranda with respect to mediated commercial real property appeals.	We recommend that RPTA staff the Appeals and Litigation Unit adequately to: (a) Ease the current workload; and (b) Expedite the filing of outstanding settlement memoranda.	Agreed - The OCFO agrees that under current law and the current court process, there is a backlog of cases scheduled to proceed to Superior Court after RPTAC decisions. OCFO believes that the creation of a tax court, similar to those of other jurisdictions, would more effectively address this issue. Absent this reform, staff augmentation, in the form of additional appraisal staff to work through and dispense with the existing backlog of cases before the Superior Court and to better manage the day-to-day activity of the unit such as mediations, depositions, expert report writing and the like.	**Fully Implemented –** This control was resolved with the implementation of the Modern Integrated Tax System (MITS) and management stated that there is no longer a backlog of cases.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
16-1-14AT(a) - 16	We noted that there is an inherent risk in the assessment process, spawned by a clear misalignment between RPTA's current personnel-related budget and level of staffing, and RPTA's core mission of conducting effective assessments. This misalignment is largely driven by structural challenges represented by the District's appeals legislation. According to RPTA's personnel, 65% or more of an appraiser's time on average is expended on defending assessments in the face of appeals filed by property owners. Consequently, merely 35% or less of an appraiser's time, on average, is devoted to an appraiser's core duty of assessing commercial properties and conducting commercial property inspections.	We recommend that RPTA achieve a better alignment between its level of staffing and its core mission, or engage in negotiations with the District Council to engineer a change to existing appeals legislation designed to deter frivolous appeals.	Disagreed - The OCFO agrees with the need to enact appeals reform. We disagree with the notion that realignment of staffing level would address the systemic problem that exists; i.e. the appeals process needs to be amended to provide for a path to timely judicial decisions. The OCFO concurs with the recommendation to engage the Council, in conjunction with the Attorney General's office and the Superior Court, to engineer a solution to this problem.	**Partially Implemented –** Changing the legislative requirements is outside of OTR's control; however, OTR is pursuing municipal regulation changes in an effort to modify the assessment calendar.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
the22-1-25AT - 1	RPAD did not have formal policies and procedures or a plan in place for periodically inspecting commercial properties to verify property characteristics were complete and accurate in accordance with standards and leading practices.	We recommend that RPAD management develop a plan for periodically inspecting properties so there is reasonable assurance that property characteristics data are up to date.	Agreed - RPAD concurs. RPAD management is developing a 3-year plan to conduct field inspections of all commercial properties in the District of Columbia. RPAD will produce the plan by January 6, 2023. The field inspections will start on March 1, 2023. RPAD is always striving to improve the quality of our property attribute data. The division will procure Mobile Assessment Technology that uses iPad field devices for this purpose. These tablets will have all the capability of replicating CAMA records along with oblique image libraries, sketching and image capture. Deployment is expected in the Spring of 2023. This will ensure complete coverage of the inventory. This initiative will be in addition to the fieldwork conducted because of sales and supplemental assessments	**Fully Implemented –** Management provided Crowe with the policy to review and update property photos and stated that inspections are conducted at least every 3 years.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 2	RPAD did not update their acceptance codes as recommended in OIG Report No.16-1- 14AT Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments (Issued April 10, 2017). Specifically, RPAD did not reconfigure the CAMA system to begin recording sale qualifications with respect to sales-ratio study purposes as well as validations with respect to modeling purposes in accordance with best practices. Additionally, sales acceptance codes were not used consistently to properly track sales, which results in future inability to use data for appraisals and ratio studies.	We recommend that RPAD reconfigure the CAMA system to begin recording sale qualifications with respect to sales-ratio study purposes as well as validations with respect to modeling purposes.	Disagreed - RPAD disagreed with this recommendation in 2016 and continues to disagree. The division's primary use with respect to sale information is to help analyze and develop the appropriate capitalization rates for the various types and classes of commercial properties where the income approach to value is employed as the primary indication of value. We collect and qualify as much data as possible to ensure our analysis reflects the activity in the market. However, the number of sales of various types of commercial properties rarely meet levels that would allow for meaningful assessment to sales ratio studies. RPAD considers all appraiser-qualified sales suitable for both modeling and sales-ratio studies. RPAD sees no substantial benefit to reconfiguring our systems to support validating sales differently for the two different purposes. Sales are so rare and so critical to the income approach analysis that RPAD goes to great lengths to thoroughly research a sale before it must be disqualified.	**Not Implemented –** No action was taken as OTR disagreed with the finding.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 3	Using one code for ratio studies (sale qualifications) and one for sale validations is important because some sales may not be usable in a ratio study even though it can be used in an appraisal. OTR's CAMA System allows for the use of two codes. It was also noted that the codes were not used consistently, especially code 07, which is the code for speculative and according to OTR's procedures is to be used if the "sale is unqualified; the prime motivation of the purchaser is a quick profit through resale before or after renovation". However, the use of code 07 is often difficult to determine without documented evidence of speculation on the part of the purchaser, thus the code may be incorrectly used.	We recommend that RPAD not use code 07 unless there is convincing documentation that the sale was "speculative."	Disagreed - RPAD disagreed with this recommendation in 2016 and continues to disagree. The division's primary use with respect to sale information is to help analyze and develop the appropriate capitalization rates for the various types and classes of commercial properties where the income approach to value is employed as the primary indication of value. We collect and qualify as much data as possible to ensure our analysis reflects the activity in the market. However, the number of sales of various types of commercial properties rarely meet levels that would allow for meaningful assessment to sales ratio studies. RPAD considers all appraiser-qualified sales suitable for both modeling and sales-ratio studies. RPAD sees no substantial benefit to reconfiguring our systems to support validating sales differently for the two different purposes. Sales are so rare and so critical to the income approach analysis that RPAD goes to great lengths to thoroughly research a sale before it must be disqualified.	**Not Implemented –** No action was taken as OTR disagreed with the finding.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 4	Commercial income and expense information is not available to RPAD in a timely manner to provide relevant information in the assessment process.	We recommend that RPAD seek to require I&E submissions before the assessment notice deadline by seeking the appropriate legislative remedy.	Agreed - This recommendation was also cited as Recommendation 8 in the first performance audit dated September 30, 2012. We concur with this recommendation. Our efforts to stream-line the I&E filing process is one part of a multi- part effort to allow RPAD to utilize the timeliest income and expense information in its valuations. The other aspects to implementing this initiative involve gaining support from the commercial community and acquiring legislative authority to change the assessment calendar. The latter two efforts are underway; however, they are beyond the control of the division.	**Partially Implemented –** Changing the legislative requirements is outside of OTR's control; however, OTR is pursuing municipal regulation changes in an effort to modify the assessment calendar.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 5	Ratio Studies prepared by RPAD were not properly conducted and were not included as a part of the valuation process, which may have led to appraised values significantly below market value. We conducted a ratio study over sales for the calendar years 2015-2019. The overall median sales ratio we computed was .886 and was statistically significantly less than .90, the lower bound of the acceptable range as laid out in the IAAO Standard on Ratio Studies (Part 1, Section 9.1).	Crowe recommends that RPAD implement a global review process for ratio study results. These ratio studies should be properly conducted and included as a part of the valuation process. Final appraised values should not be approved until quality standards are met. Key internal stakeholders and valuation team leaders should regularly review market movements and ratio study results together. RPAD should examine every step of the commercial valuation process for the various property types and sub-market areas to look for components, practices, and factors that may lead to appraised values that are below market value.	Agreed - RPAD adheres to appraisal industry standards and best practices and adopted IAAO standards in the assessment process in the District of Columbia. However, these IAAO standards are advisory, and the adaptation is not "one-size-fits-all". RPAD agrees that a formal review process that enhances the existing valuation process benefits the assessment division's overall goal. Therefore, the RPAD leadership team will begin to conduct a quarterly review of sales and other market and submarket valuation matrices starting April 1, 2023. The results of the reviews will guide the annual reassessment exercise adopted for the three levels of property assessment appeals when necessary.	**Fully Implemented –** Submarkets were used instead of neighborhoods to stratify the data.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 6	Certain property strata types were appraised less uniformly than standards recommend. Although most strata have a Coefficient of Dispersion (CODs) within the standard range, several did not. This problem was not pervasive and was isolated to only a few areas and property type groupings.	Crowe recommends that RPAD do a thorough review of data quality, valuation practices, and valuation models in the identified strata. Specifically: a) We recommend that RPAD further improve the valuation of office buildings by reviewing property data for accuracy and consistency and by building data analysis skills. Because capitalization rates are so critical to value determination and office sales are relatively scarce, office sales should be thoroughly researched, and consideration should be given to expanding sample sizes through use of prior year sales time-adjusted to the valuation date. Again, building data analysis skills will help, and continuing to check capitalization and other income rates with those reported in industry publications and services will provide additional support. This recommendation is repeated from OIG Report No.16-1-14AT Evaluation of the District of Columbia Government's Management and	Agreed + Disagreed - RPAD partially agrees with this recommendation. We recently hired a second market analyst. The impetus for this was to strengthen RPAD data analysis capabilities. The market analysts working as a team can now research, evaluate taxpayer submissions, and distill credible data conclusions. RPAD conducts monthly sales verification by direct contact with the parties to the sales transaction. In addition, RPAD uses other resources to assist in sales and data verifications. "Building data analysis skill" is ambiguous. It insinuates a lack of skills rather than recognizing that RPAD market analysts carry out their functions appropriately, evidenced by the work product manifested in published data and reports. RPAD typically uses the most current year to develop our capitalization rates when sales are adequate and consistent with industry practices. However, when the number of sales is determined to be inadequate to develop reliable market capitalization rates, we will expand our sales to include time-adjusted sales over a period of up to two years. Additionally, we generally rely more on survey data when sales are scarce. b) We recommend that RPAD develop and vet a plan for valuing retail properties at market value consistent with other properties in the District. This could be accomplished by phasing in increases over a 2- or 3-year period. The plan should include consideration of whether: i) The nine market areas used for offices are adequate for retail properties. Although the situation may well be different in the District, retail market areas or	**Partially Implemented –** Part A – Fully Implemented – OTR has devoted more resources to Market Analyses and development of rates. They have also created a unit to validate sales and verify data. Part B – Fully Implemented – Submarkets were used instead of neighborhoods to stratify the data. Part C – Not Implemented – RPAD did not develop additional sales-based or regression-based valuation models for industrial properties as contemplated by the recommendation. Please see **Finding #2**.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
		Valuation of Commercial Real Property Assessments (Issued April 10, 2017) Recommendation 11. b) We recommend that RPAD develop and vet a plan for valuing retail properties at market value consistent with other properties in the District. This could be accomplished by phasing in increases over a 2- or 3-year period. The plan should include consideration of whether: i. The nine market areas used for offices are adequate for retail properties. Although the situation may well be different in the District, retail market areas or neighborhoods usually follow traffic corridors more than offices do. Again, while this may well not apply in the District, it would be prudent to consider whether retail areas should be defined separately from office areas. ii. Additional space types, easily accommodated in the CAMA system, would be helpful. One example is restaurants. Current rent tables provide a separate rate for	neighborhoods usually follow traffic corridors more than offices do. Again, while this may well not apply in the District, it would be prudent to consider whether retail areas should be defined separately from office areas. RESPONSE: RPAD disagrees with this recommendation. The District of Columbia does not have retail destinations independent of the existing/identified nine commercial markets. While it is true that retail market areas usually follow traffic-pattern or pedestrian-friendly/walkable street fronts, the uniqueness of the commercial markets in the District of Columbia is that neighborhoods with high retail corridors are within these commercial markets. Therefore, RPAD does not need to segregate the retail submarket further from the existing commercial market or the "office market," according to the auditors. ii) Additional space types, easily accommodated in the CAMA system, would be helpful. One example is restaurants. Current rent tables provide a separate rate for restaurant spaces but do not distinguish between fast-food and full service restaurants. Although appraisers can apply adjustments for "tenant appeal," standardizing rates creates consistency and lessens the need for individual property adjustments. This recommendation is repeated from OIG Report No.16-1-14AT Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments (Issued April 10, 2017) Recommendation 12. RESPONSE: RPAD continues to focus on identifying those value	

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
		restaurant spaces but do not distinguish between fast-food and full-service restaurants. Although appraisers can apply adjustments for "tenant appeal," standardizing rates creates consistency and lessens the need for individual property adjustments. This recommendation is repeated from OIG Report No.16-1-14AT Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments (Issued April 10, 2017) Recommendation 12. c) We recommend that RPAD develop additional mass appraisal tools for valuing industrial properties. Income rates could be developed and entered in CAMA, and sales-based models could be developed. As with other commercial properties, considering prior year sales (appropriately adjusted to the valuation date) could help improve sample sizes. Values should be based on whichever valuation approach works best, or the appraiser	characteristics that the market deems significant and appropriate in establishing accurate values across property types and sub-categories. For example, RPAD believes that the current retail model captures all subcategories of retail properties in the CAMA valuation model. However, RPAD's commitment is to continue to find better ways to develop property assessments in the District of Columbia. If in the future, a specific sub-category of properties lends itself to a separate or unique valuation model, RPAD will revise its current model to accommodate those sub-categories.	

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		could enter an override value. This recommendation is repeated from OIG Report No.16-1-14AT Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments (Issued April 10, 2017) Recommendation 13.		

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 7	RPAD did not have formal procedures to govern practices regarding valuing air rights. Air rights are the property interest in the space above a specified land area or between specified elevations. The District currently has over 500 recorded air rights. Crowe reviewed RPAD Standard Operating Procedures to determine if the updated procedure manual included a section for the assessment of air rights. Upon review of the Standard Operating Procedures and Appraiser Reference Materials, RPAD has not developed procedures around air rights. RPAD is currently identifying appropriate procedures for air rights. This observation is partially repeated from OIG Report No.16-1-14AT *Evaluation of the District of Columbia Government's Management and Valuation of Commercial Real Property Assessments (Issued April 10, 2017).* The 2017 report also reported that possessory interest should also be governed by procedures and RPAD	We recommend that RPAD adopt procedures for valuing air rights and add them to the ARM and/or Employee Handbook.	Disagreed - Air rights are unique, and the industry has yet to fully settle how best to value them, except in general terms. RPAD air rights valuation is an apportionment of the total fee value of the property. To streamline the air rights valuation process, RPAD developed a value allocation worksheet to apportion the total fee simple property value to all lots, including air rights lots that constitute the property. In addition, RPAD trained commercial appraisers on how to use the worksheet for value allocation. The division concurs with the recommendation to document this valuation approach even when RPAD continues to refine the valuation approach. However, we are reluctant to publish anything prematurely without thorough and complete vetting. The Almy, Glaudemans, and Denne auditors admit, in the 2012 audit, that this is a challenging endeavor. OTR will, however, ensure that the topics are formally addressed and documented in our ARM and Employee Handbook for the TY 2025 reappraisal. The International Association of Assessing Officers (IAAO) does not have a standard on valuation of air rights. Any publication on valuation of air rights will be unique to the District of Columbia.	**Fully Implemented –** Although OCFO disagreed with this finding, Crowe noted in our review of the Assessment Division Manual that reference to air rights was in its data collection section.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
	developed procedures to address possessory interest. We found that OTR developed and implemented possessory interest policies and standard operating procedures since 2017.			
22-1-25AT - 8	RPAD only included one year's worth of sales in its valuations and sales ratio studies, therefore, it did not have sufficient numbers of sales of commercial properties included in each property type grouping strata to provide the most accurate valuations.	Crowe recommends that RPAD use at least 3 years and preferably 5 years of commercial property sales in valuation and sales ratio studies. Statistical modeling should be used to produce time trends that adjust all sales to the effective date of the reassessment.	Disagreed - RPAD market analysis for commercial valuation already considers three years of sales. RPAD recognizes that the "time-trend" or adjustment is rooted in prediction based on an observed pattern that even when limited sales may compel the use of multiple years, the time-trend may be opposed to the current or existing market reality at the time of reassessment. The volatility of the commercial real estate market in recent years, particularly in the District of Columbia, requires statistical modeling that better reflects current market conditions. Therefore, RPAD will continue to consider three-year sales; all or most weight will be on the most recent year leading to the reassessment because of the market dynamics in the District of Columbia.	**Not Implemented –** No action was taken as OTR disagreed with the finding. Increasing the size of the observation pool will improve representation of unsold properties and make statistics more meaningful.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 9	RPAD did not report ratio study statistics based on assessed values at the time of sale resulting in a potential distorted view of the assessment performance.	We recommend that RPAD begin reporting ratio study statistics with respect to assessed values on the roll at the time of sale rather than, or in addition to, assessed values anticipated to be enrolled later, as are currently reported.	Disagreed - RPAD disagreed with this recommendation in 2016 and continues to disagree. Ratio studies are conducted for a variety of purposes. In this context, the ratio report measures assessment quality by looking at the most recent reassessment program and comparing the results of that effort to actual market conditions. It is contrary to the purpose of the report to use current year values when the intent is to demonstrate the proposed year assessment quality. The introduction to the report clearly states that OTR uses the proposed year reassessments compared to the 12 months of sales immediately preceding the valuation date. Please note that the Assessor Reference Materials (ARM) includes a section where proposed assessments are compared to both current and proposed year values. Additionally, RPAD management annually uses internal "going-in" ratio reviews to compare values to the current market in the District of Columbia and determine the need to adjust values up or down.	**Fully Implemented –** Based on our current procedures, Crowe determined that additional corrective action is not necessary. Reporting ratio study statistics based on assessed values at the time of sale does not necessarily identify sales chasing and may not provide meaningful insight into assessment performance. More appropriate procedures exist to evaluate potential sales chasing, including analysis of valuation changes relative to sale dates.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 10	RPAD did not compute nor report ratio statistics by property type and market area in order to ensure reliable statistics to measure appraisal performance.	We recommend that RPAD transition to computing and reporting ratio statistics by property type and market area.	Agreed - RPAD will explore this recommendation by running internal ratio studies with an internal managerial review. The internal ratio study review shall be reported to RPTA leadership on October 15, 2023. Individual property ratio statistics would be the most beneficial way to report commercial ratio statistics, but in many cases, this is impractical, at least in RPAD's experience. The qualified sales of commercial properties are limited, whereby in many cases, the sample sizes need to be more substantial to provide meaningful statistical inferences.	**Not Implemented –** RPAD continues to perform monthly sales verifications and produces quarterly ratio analyses as data becomes available. However, in the past, there have been few qualified commercial property sales, making it difficult to draw meaningful statistical conclusions. This situation remains unchanged today.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 11	RPAD did not use standards based trimming rules while performing ratio studies to appropriately exclude outliers of property sales or transfer data.	We recommend that RPAD begin to adopt a standard-accepted trimming rule while performing ratio studies in accordance with Appendix B of the IAAO Standard on Ratio Studies rather than the arbitrary ratio boundaries of 0.40 to 1.60 presently employed.	Disagreed - As discussed in our response to recommendation #3, our primary use of qualified commercial property sales is to help develop and support the various matrices and capitalization rates used in the income approach to valuation. RPAD contends that our established trim range is not arbitrary and, most importantly, is sufficiently large, and few if any, ratios are excluded. Only the most extreme outliers are excluded in this trimming range, as would be appropriate. The trimming range and its use in our study remained consistent over the years. RPAD does not intend to modify this methodology.	**Fully Implemented –** Crowe determined that the existing outlier screening methodology is reasonable and does not produce biased results. The current ratio study also utilized additional statistical techniques to identify influential observations. Therefore, no further corrective action is warranted with respect to this recommendation.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 12	OTR's current ratio studies present standard metrics such as the median, COD and reported price-related differential. However, improvements can be made in the ratio studies by reporting confidence limits on important statistics regarding the appraisals. Additionally, reporting Price-Related Bias (PRB) provides a measure that is more meaningful and less sensitive to extreme prices or ratios. Graphical presentations can also be useful to provide illustrations of trends, data patterns, and key statistics in an easier to understand format than simply providing numerical information.	We recommend that RPAD take steps to compute and, when appropriate, publish confidence intervals for important statistics. This would enable readers to judge whether an apparent success or failure is more likely to reflect a fluke of small samples rather than a real problem with the appraisals.	Agreed - RPAD agrees that the confidence interval would be a good test to ensure the reliability of median calculation. It is easily developed from modern statistical software packages. RPAD published the confidence intervals in the ratio study report following the OIG Report No. 16-1-14AT. RPAD plans to continue publishing the statistical confidence interval in subsequent ratio studies report.	**Fully Implemented –** Crowe inspected the 2023 Assessment Ratio Report and noted the report does make reference to the confidence intervals used to support its statistics.

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22-1-25AT - 13	OTR's current ratio studies present standard metrics such as the median, COD and reported price-related differential. However, improvements can be made in the ratio studies by reporting confidence limits on important statistics regarding the appraisals. Additionally, reporting Price-Related Bias (PRB) provides a measure that is more meaningful and less sensitive to extreme prices or ratios. Graphical presentations can also be useful to provide illustrations of trends, data patterns, and key statistics in an easier to understand format than simply providing numerical information.	We recommend that RPAD begin to compute and, when appropriate, publish PRBs.	Disagreed - The price-related differential (PRB) is currently measuring vertical inequity. The price-related bias test is one of several additional tools to measure this bias. In our experience, adequate sales exist in our residential inventory to make a price-bias test meaningful when values are generated from our CAMA system, which applies RPAD's sales calibrated cost approach. For example, "economies of scale" may cause or introduce systemic errors in CAMA valuation models. However, in the valuation of commercial properties, where the income approach is the primary indicator of value, those limitations rarely, if ever, occur. As a result, the marginal square foot of rentable area is identical to the first square foot. Commercial properties are much more heterogeneous than residential properties, making interpreting a price-related bias (PRB) test challenging. Therefore, we must see the merit of computing the PRB for the commercial property before publishing it in the ratio study report.	**Fully Implemented –** Crowe noted that the current revision of the Standard in Ratio Study (currently in peer review) will recommend a Vertical Equity Index rather than a Price-Related Bias. Therefore, Crowe considers this recommendation closed and recommends OTR uses the Vertical Equity Index as prescribed in the updated standards.

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22-1-25AT - 14	OTR's current ratio studies present standard metrics such as the median, COD and reported price-related differential. However, improvements can be made in the ratio studies by reporting confidence limits on important statistics regarding the appraisals. Additionally, reporting Price-Related Bias (PRB) provides a measure that is more meaningful and less sensitive to extreme prices or ratios. Graphical presentations can also be useful to provide illustrations of trends, data patterns, and key statistics in an easier to understand format than simply providing numerical information.	We recommend that RPAD begin to produce statistical graphics to facilitate quick comprehension of patterns not immediately observable from numeric tables.	Agreed - RPAD includes a histogram depicting the distribution of ratios for all residential properties in the District. This chart quickly illustrates both the assessment level and the ratios' dispersion as measured by the standard deviation. RPAD will display a similar chart for the ratios of all commercial properties in its following ratio study report. In addition, RPAD will further review data that lends itself to meaningful statistical charts for internal managerial review. The charts will feature in the TY 2024 ratio studies scheduled for publishing October 2023.	**Not Implemented –** Management stated that they were not able to create a reliable chart because the number of sales within the last several years were too low.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 15	RPTA did not produce a mass appraisal report based on ARM in accordance with standards to provide more public access to the creditability of the assessments.	We recommend that RPTA produce a USPAP-compliant mass appraisal report based on the ARM. The report would blend procedural narratives with statistical data on valuation parameters such as rents, expense ratios, and capitalization rates. The aim is to make public more evidence of the credibility of assessments. The recent additions related to residential and residential land valuation provide a template for changes that would be desirable in the discussion of commercial valuation procedures.	Agreed - The information discussed in the recommendation, such as statistical data on valuation parameters such as rents, expense ratios, capitalization rates, and the like, are contained in the division's Pertinent Data Book and Market Analytics Book. The Pertinent Data Book and Market Analytics Book are available to the public on OTR's website at no charge. RPAD shall conduct more research to determine how the ARM can further comply with USPAP requirements	**Fully Implemented –** Management stated that their annually published Pertinent Data Book and Market Analytics Book provide a comprehensive overview of the assessment process utilized in the District of Columbia.

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22-1-25AT - 16	While improvements have been made to defend against appeals, further legislative changes would improve how RPTA handles assessments under appeal.	We recommend that efforts continue to improve how RPTA defends assessments under appeal.	Disagreed - The appeals tracking is fully operational in MITS. MITS has capabilities to track calendar workflow and archive documents. In addition, MITS can monitor conditional liabilities, workflow, and the storage/archiving of all appeal-related papers and various communications and interactions of all the professionals involved in managing the appeal/litigation process. Any effort to disincentivize recurring and nuisance appeals requires legislative changes or enactment.	**Fully Implemented –** This was resolved with the implementation of the Modern Integrated Tax System.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 17	A Human Resource Business Partner was not supporting organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff development OTR functions.	Crowe recommends expanding HR Business Partner support of OTR's organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff development functions.	Disagreed - We disagree with the auditor's assessment. The Office of Tax and Revenue (OTR) is currently supported by a designated HR Business Partner that is the point of contact for all HR related matters. The HR Business Partner meets with OTR leadership and management on a consistent basis to ensure the agency has the talent and resources to achieve its business goals. In weekly meetings, leadership is apprised of any relevant information related to HR processes and/or policy interpretations, and given the opportunity to discuss any talent management needs such as compensation requirements, staffing levels, training, qualifications, etc.	**Partially Implemented –** OCHRO has assigned an HR Business Partner to support OTR leadership, documented the scope of the HR Business Partner's responsibilities, and directed the HR Business Partner to provide ongoing strategic support in areas such as workforce planning, performance management, recruitment, training, compensation, qualifications, and staff development. However, while these actions represent progress toward addressing the prior recommendation, current workforce planning practices remain largely vacancy-driven and operationally reactive. Workforce planning activities are not consistently integrated with workload analysis, retirement risk assessments, succession readiness, competency monitoring, hiring strategies, or long-term operational sustainability planning. As a result, OTR continues to rely heavily on long-tenured employees and informal operational adjustments to address staffing pressures and workload demands. Additional action is needed to ensure HR Business Partner support is fully embedded into OTR's workforce planning and human capital management processes and results in proactive, data-driven planning for current and future operational needs. However, while these actions

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
				represent progress toward addressing the prior recommendation, current workforce planning practices remain largely vacancy-driven and operationally reactive. Workforce planning activities are not consistently integrated with workload analysis, retirement risk assessments, succession readiness, competency monitoring, hiring strategies, or long-term operational sustainability planning. As a result, OTR continues to rely heavily on long-tenured employees and informal operational adjustments to address staffing pressures and workload demands. Additional action is needed to ensure HR Business Partner support is fully embedded into OTR's workforce planning and human capital management processes and results in proactive, data-driven planning for current and future operational needs. **Please see Finding #7.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 18	A Human Resource Business Partner was not supporting organizational structure, workload statistics, performance measures, compensation requirements, staffing levels, training, qualifications, and staff development OTR functions.	We recommend that RPTA adopt measures to link operational activities to its organizational strategic plan and mission. In addition, key human resources metrics, such as Yield Ratios (ratio of offers to acceptance, interview-to-offer ratio, invitations-to-interview ratio, advertisements, or contacts-to-applicant ratio), should be established. RPTA personnel should compile an effective set of financial measures and operational measures (on customer satisfaction, internal processes, and the RPTA's innovation and improvement activities) that will put RPTA's strategy and vision at the center of its operations. This tool would drive its personnel to adopt behaviors and invest in actions that are critical to arrive at strategic and operational goals and align them toward an overall vision.	Disagreed - We disagree with the auditor's assessment. RPAD's position is that the Yield Ratios should be separate and distinct from the strategic and operational goals of the division. While those goals can include assuring that quality candidates are selected, any metrics related to the recruitment and hiring process are not within the purview of RPAD. The division is committed to establishing quantifiable strategic and operational goals for FY23. These will be completed by the end of the first quarter.	**Partially Implemented –** OCHRO and RPTA have taken steps to address the prior recommendation by establishing HR Business Partner positions and assigning HR Business Partner support to OTR leadership. This represents progress from the prior audit, which found that RPTA primarily relied on a Program Analyst outside of the OCFO Human Resources organization for HR-related support. RPTA also committed to establishing quantifiable strategic and operational goals. However, the recommendation is not fully implemented. While HR Business Partner support has been assigned, current practices remain largely vacancy-driven and reactive. RPTA has not provided sufficient evidence that workforce planning is consistently integrated with workload analysis, retirement risk assessments, succession readiness, competency monitoring, hiring strategies, or long-term sustainability planning. RPTA also has not fully established or consistently used organizational-level performance benchmarks, workforce metrics, or indicators to align operational activities, human capital needs, strategic goals, and mission. Accordingly, the recommendation is considered partially implemented. To fully implement it,

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
				RPTA should continue working with OCHRO and its HR Business Partner to establish and monitor key human capital, financial, and operational measures and use them to support workforce planning, performance management, staffing, recruitment, training, succession planning, and long-term operational sustainability. **See Finding #5.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 19	Monetary awards were not used to recognize Commercial Appraiser performance or workplace contributions. The monetary award component of the OCFO's Incentive and Performance Recognition Awards Program was suspended during the pandemic. The Chief Appraiser and Commercial Supervisors informed us that per OCFO policy, OTR staff were not eligible for monetary OCFO Incentive and Performance Recognition Awards Program recognition when they exceeded performance expectations or contributed to an effective and efficient workplace. Instead, OTR employees were recognized for exceeding performance expectations and contributing to an effective and efficient workplace with compensatory time off, or career ladder promotions.	Crowe recommends reinstating the monetary award component of the OCFO Incentive and Performance Recognition Award Program and training the Chief Appraiser and Supervisory Appraisers to recognize and reward these contributions.	Disagreed - The OCFO has implemented several monetary systems to reward the ongoing contributions of OCFO employees. We implemented an annual award ceremony in which all staff's contributions are recognized and selected staff are awarded monetary compensation. The OCFO was unable to host its annual event due to the operational and financial impact of the global COVID pandemic. However, we were able to offer a one-time bonus of 3.5% to recognize staff performance in FY22. Additionally, staff consistently receive career-ladder promotion opportunities allowing them to receive a grade promotion and pay increase when meeting performance expectations. All employees are awarded within grades increases either annually or bi-annually, and management is also allowed to reward performance by offering Tangible Item Awards (gift certificates, discounted parking, or transportation reimbursement) and Time Off Awards.	**Partially Implemented –** OCFO has taken steps to recognize employee performance through an annual awards ceremony, a one-time FY 2022 bonus, career-ladder promotions, within-grade increases, tangible item awards, and time-off awards. However, the prior recommendation specifically called for reinstating the monetary award component of the OCFO Incentive and Performance Recognition Awards Program and training the Chief Appraiser and Supervisory Appraisers to use monetary awards to recognize Commercial Appraiser performance and workplace contributions. Additional evidence is needed to demonstrate that the formal monetary award component has been fully reinstated, that Commercial Appraisers are eligible and considered for monetary awards, and that appraisal leadership has received guidance or training on recognizing and rewarding outstanding performance. Therefore, the recommendation is considered partially implemented.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 20	RPAD did not effectively track or monitor the implementation status of recommendations from prior reports relating to D.C. Code § 47-821. RPAD also did not proactively update documentation of recommendations to reflect the current status of implementation of corrective actions.	RPAD should develop formal policies and procedures to assign responsibility for tracking and monitoring the implementation status for recommendations.	Agreed - RPAD will develop a standard monitoring and tracking of the implementation of recommendations agree	**Not Implemented –** Management is working with developers to develop this functionality within MITS; however, it does not currently exist, and KPIs are being tracked through a monthly Excel report.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 21	RPTA has not developed quality assurance procedures to assist in improving its commercial property assessments. Although RPTA has made strides in its quality assurance practices, including the hiring of a Real Property Assessment Manager who is in the process of developing training and quality assurance mechanisms, the results of our ratio study indicate that commercial properties are still being undervalued.	We recommend that RPTA establish an Office of Quality Assurance, Best Practices, and Innovation to: (a) conduct random and regular independent assessments of quality in all core processes; (b) assess performance against best practices; (c) study the commercial real property assessment practices of state and local government entities across the United States; and (d) engage in process innovation to enhance service delivery. This Office should report directly to the Director of RPTA and report yearly to the District's CFO.	Disagreed - We strongly disagree with the auditor's assessment of RPAD having no quality assurance mechanism and believe that it indicates a lack of understanding of how RPAD operates within the District. RPAD consistently adheres to IAAO standards and practices to maintain best practices in carrying out its assessment duties. In 2019, IAAO awarded the District of Columbia Certificate of Excellence in Assessment Administration. The certificate is how IAAO recognizes governmental units and individuals involved with property assessments that integrate industry best practices. Unlike the States Assessment Administrations, which have oversight over County Assessment offices, The District of Columbia is an "all-in-all" assessment jurisdiction; that is, the administration and oversight of the assessment office in the District is the responsibility of the Government of the District of Columbia. In addition, under the auspices of the Office of the Inspector General, an independent best practice review is conducted regularly to ensure that RPAD stays abreast and adheres to practices reflecting acceptable methodologies and industry standards in property assessment. Such a review has just occurred. In addition to the OIG's review, OCFO Risk Officer has established periodic risk controls and evaluation of RPAD functions. The OIG audit and the Risk Officer control tests are direct oversight of RPAD's business functions independent of RPAD. Also, the OCFO's Office of Integrity and Oversight conducts periodic audits of the assessment division to ensure the unit's adherence to its	**Not Implemented –** Management disagreed, therefore, no action was taken. Crowe noted that the current ratio study identified continued underassessment within several major commercial property portfolios.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
			written policies and procedures. Furthermore, extensive internal and external appraiser training and the Assessment Education Certification Program (AECP) provides all appraisers with industry best practices. These combined efforts ensure that RPAD focuses on quality in its assessments and service delivery. Unfortunately, the auditors ignored these facts.	

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 22	RPAD did not monitor performance against key performance measures on a regular basis to determine whether they were meeting performance indicators.	RPAD monitor and retain documentation to support their progress against key performance indicators.	Disagreed - RPAD has defined its key performance indicators (KPI) as part of OTR’s technology enhancement initiatives. The KPIs for the commercial units currently utilizes Excel as a tracking mechanism. KPIs are reported to RPTA leadership monthly. RPAD is working with technical experts within IT to implement tracking, monitoring, and reporting of KPIs in MITS.	**Not Implemented –** Management disagreed, therefore, no action was taken. Additionally, Crowe notes that OTR’s strategic plans are no longer published on their website and could not be provided for our review.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 23	RPTA did not have a structured staff development and training program for its staff.	We recommend that RPTA develop a structured staff development and training program. Also, RPTA should clearly articulate training goals for each individual and establish criteria by which the effects of training can be measured.	Disagreed - We partially disagree with the auditor's assessment. The OCFO currently conducts a job analysis before posting of all vacant positions and recruitments are based on the knowledge, skills and abilities (KSA) to successfully perform the function of the position. Additionally, OCFO annually develops and updates Individual Development Plan for each of its employees which outlines the employee's career goals and determines a path to advancement. The OCFO also offers targeted job specified training, as well as other development courses to allow employees to gain expertise and advance in their careers.	**Partially Implemented –** OCFO and RPTA have taken steps to support staff development through job analyses, annual Individual Development Plans, targeted job-specific training, and development courses. However, the prior recommendation called for RPTA to develop a structured staff development and training program, clearly define training goals for each individual, and establish criteria to measure training effectiveness. Additional evidence is needed to demonstrate that RPTA's training activities are consistently structured, aligned with strategic needs, and evaluated using measurable outcomes. Therefore, the recommendation is considered partially implemented.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 24	We noted that RPAD did not have a system or plan in place to track certification or continuing education requirements.	We recommend that RPAD implement the following: - A review of the staff qualifications be performed in accordance with IAAO standards. This review should be performed on an annual basis. - A training program be developed to ensure all staff are appropriately trained, qualified, and certified.	Agreed - Currently, There are required IAAO courses that candidates must complete in order to qualify for each position within the assessment unit. Candidates selected for hire must meet a minimum qualification requirement, which includes completion of various IAAO or equivalent courses, prior to being extended an offer of employment with the OCFO. Additionally, A training and certification program along with a cross-training program was developed in 2016,but was halted during the pandemic (see attachments). The training program incorporated IAAO standards for certification. We will reinstate the program, updating the requirements, by the 3rd quarter of FY23.	**Partially Implemented –** RPAD has taken steps to identify staff certifications and designations, including providing an updated listing showing that 30 appraisers had received one of three professional designations. However, RPAD has not fully demonstrated that it has implemented a formal system or plan to track certifications, licenses, training received, continuing education requirements, renewal deadlines, and compliance status. Additional action is needed to establish a centralized tracking process, assign monitoring responsibility, and periodically review staff qualification records to ensure appraisers maintain required credentials and receive ongoing professional development. Therefore, the recommendation is considered partially implemented. **See Finding #6.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 25	External compensation expertise was not considered when Commercial Appraiser compensation was benchmarked against market data.	Crowe recommends retaining a compensation consulting firm with public and private sector and/or commercial appraisal compensation expertise to ensure relevant compensation data is considered when market-pricing commercial appraiser positions.	Disagreed - We disagree with the auditor's assessment. The Office of Human Resources regularly conducts job pricing by comparing market pay and internal pay through the analysis of position requirements. We use reputable compensation surveys and other compensation information resourced directly from competitors. Further, our ongoing review of compensation data of applicants is used to ensure that we are maintaining an appropriate pricing level for these positions.	**Partially Implemented –** OCFO has taken steps to assess Commercial Appraiser compensation through internal job pricing, market pay comparisons, compensation surveys, competitor information, and applicant compensation data. However, the prior recommendation specifically called for retaining a compensation consulting firm with public and private sector and/or commercial appraisal compensation expertise. Additional evidence is needed to demonstrate that OCFO obtained or incorporated specialized external compensation expertise and broader public- and private-sector commercial appraisal market data when pricing these positions. Therefore, the recommendation is considered partially implemented.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 26	Commercial appraiser certification and equivalent work experience hiring policies were unclear.	Crowe recommends clarifying the equivalent work experience policy for commercial appraiser hiring decisions by adding consistent work experience equivalency language to Commercial Appraiser grade 12 and 13 job descriptions and informing the appropriate HR and OTR practice stakeholders.	Disagreed - We disagree with the auditor's assessment. The Office of Human Resources worked in collaboration with the assessment administration to conduct a job analysis for the Commercial Appraiser position. That collaboration effort resulted in the development of a position description and minimum qualifications that are used and reviewed prior to beginning any recruitment search. We have not found that applicants are having difficulty with the language used when advertising for our position openings: "Four (4) years of progressive experience performing related duties and responsibilities such as: assessing the market value and conducting inspections of residential and/or commercial properties; collecting/analyzing data on new and unique properties with complex characteristics; reviewing appraisal reports to ensure property values are estimated accurately and objectively; resolving property value problems; and providing training to lower level staff. In addition, successfully completing IAAO courses 101, 102, 112, and 300 or equivalent is required."	**Fully Implemented –** OCFO has taken steps to clarify Commercial Appraiser qualifications by conducting a job analysis with the assessment administration and developing position descriptions and minimum qualifications for recruitment. The recruitment language provided identifies four years of progressive related experience and completion of specified IAAO courses, or equivalent.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 27	Commercial appraiser certification and equivalent work experience hiring policies were unclear.	We also recommend the OCFO provide the revised job descriptions to commercial appraisers, as required by the Master Agreement noted in the Criteria.	Agreed - The Office of Human Resources will ensure that employees within RPTA are issued a current copy of their position description within thirty days of the issuance of these responses.	**Fully Implemented –** OCFO agreed with the prior recommendation and stated that the Office of Human Resources would ensure RPTA employees were issued current copies of their position descriptions within thirty days of the issuance of the prior audit responses. Based on documentation provided, RPTA employees were issued copies of their position descriptions, addressing the prior recommendation. This action satisfies the requirement that employees receive current position descriptions and supports the Master Agreement requirement that employees be provided updated job descriptions when changes occur.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 28	The 2017 evaluation noted that that RPTA did not have written succession and contingency plans for the key roles of Director and Chief Appraiser. During discussions with OCHRO, we noted that OCHRO reported that informal succession planning is ongoing, however formal succession plans were not in place due to a concern about preselection.	We recommend that RPTA design, document, and implement effective succession and contingency plans. This will ensure seamless continuity of RPTA strategy and operations in the event of an unanticipated vacancy in either role. The succession plans should be approved by senior management. To ensure accountability, responsibility for this key program should be embodied within the position description for each role. Key metrics should be designed to periodically monitor and evaluate the program.	Agreed - We accept this recommendation, with the exception of the succession plan program being "embodied within the position description for each role", and this effort is underway. The Office of Human Resources has updated position descriptions and has created associated minimum qualifications for all positions within RPTA. Further, a recruitment strategy for unanticipated vacancy's within RPTA is in place. We have identified specific recruitment resources to target appropriate applicants, we have established pipelines of passive candidates, and have a dedicated sourcing support that partners with RPTA's assigned OHR Business Partner to ensure the onboarding of appropriate staff as quickly as possible.	**Not Implemented –** RPTA does not have formal succession or contingency plans for key leadership roles. Although OCHRO reported that position descriptions were updated, minimum qualifications were established, and recruitment strategies exist for unanticipated vacancies, these actions do not constitute documented succession or contingency plans. Without formal plans approved by senior management, RPTA lacks defined interim coverage procedures, knowledge transfer processes, leadership development actions, accountability, and metrics to monitor succession readiness. **See Finding #8.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 29	The 2017 evaluation noted that that RPTA did not have written succession and contingency plans for the key roles of Director and Chief Appraiser. During discussions with OCHRO, we noted that OCHRO reported that informal succession planning is ongoing, however formal succession plans were not in place due to a concern about preselection.	Crowe recommends that the OCHRO develop a written succession plan for the Chief Appraiser position and reinstating the Deputy Chief Appraiser and/or creating a Commercial Unit Manager role to provide additional leadership development opportunities for Supervisory Appraisers and reduce the number of direct reports to the Chief Appraiser.	Disagreed - We disagree with the auditor's assessment that there limited leadership development opportunities. RPAD previously added two new units to the existing four appraisal units. The impetus for the additional units was [in part] to establish property type specialization for each appraisal unit; allow unit supervisors to have better oversight of unit activities by reducing the number of direct reports from initial average of ten staff to now average of six staff. Supervisory appraisers are working managers. They are responsible for administrative and technical operations of the unit. Senior Appraisers provide guidance and training to staff appraisers but are not responsible for their administrative supervision. Lastly, please see our response to recommendation #28.	**Not Implemented –** RPTA does not have a formal written succession plan for the Chief Appraiser position, and there is no evidence that the Deputy Chief Appraiser position was reinstated or that a Commercial Unit Manager role was created. Although RPAD added appraisal units and stated that Supervisory Appraisers serve as working managers, these actions do not establish formal succession planning, interim coverage procedures, knowledge transfer requirements, or an intermediate leadership-development role between Supervisory Appraisers and the Chief Appraiser. **See Finding #8.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 30	The 2017 evaluation noted that that RPTA did not have written succession and contingency plans for the key roles of Director and Chief Appraiser. During discussions with OCHRO, we noted that OCHRO reported that informal succession planning is ongoing, however formal succession plans were not in place due to a concern about preselection.	We recommend that an organizational structure impact analysis be conducted when appropriate to ensure the OTR organization structure is aligned to OCFO 2017-2021 Strategic Plan revisions when the plan is updated.	Agreed - Like in the past, the OCFO will ensure that RPTA's operations and tactical plans align with the OCFO's strategic objectives and initiatives when the plan is updated	**Partially Implemented –** OCFO agreed to ensure RPTA's operations and tactical plans align with updated OCFO strategic objectives. However, additional evidence is needed to demonstrate that OCFO or RPTA conducted a documented organizational structure impact analysis addressing reporting relationships, leadership roles, span of control, staffing needs, workload distribution, and alignment with updated strategic objectives. **See Finding #8.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 31	Chief Appraiser and Supervisory Appraiser feedback was not used to improve hiring practices. Based on our interviews with HR and RPAD staff, we noted that hiring practice feedback and improvement recommendations were not solicited from OTR hiring practice stakeholders, such as the HR Business Partner, on a periodic or event-driven basis. The Chief Appraiser and Supervisory Appraisers did not participate on recruitment strategy or hiring practice continuous improvement teams. Additionally, we noted that the Chief Appraiser and Unit A, B, and C Supervisors also did not periodically review hiring practice activities, periodic and event-driver HR Key Performance Indicator (KPI) results. The OTR HR Business Partner only reviews hiring activities and HR KPIs with the RPTA Director. HR KPIs did not include hiring practice effectiveness or stakeholder satisfaction metrics. Sponsorship of continuous hiring practice improvements may be	Crowe recommends implementing an HR Business Partner driven process to gather and analyze OTR hiring practice stakeholder feedback on a periodic and event-driven basis. We also recommend adding hiring practice effectiveness and stakeholder experience HR KPIs.	Disagreed - We disagree with the auditor's assessment. The OCFO currently has an HR Business Partner driven process that gathers and analyzes OTR stakeholder feedback on a consistent basis. OTR leadership meets weekly with a designated HR Business Partner to discuss the agency's recruitment and staffing levels, talent management processes, and hiring feedback to provide OTR with the most highly qualified candidates. In addition, a Key Performance Indicator (KPI) metrics report has been developed, which is used by the respective HR Business Partner to inform all OTR recruitment and hiring actions. This process ensures OTR is consistently provided with prompt and efficient HR service delivery related to hiring.	**Partially Implemented –** OCFO established weekly meetings between OTR leadership and a designated HR Business Partner and developed KPI reporting to inform recruitment and hiring actions. However, additional evidence is needed to show that feedback from the Chief Appraiser, Supervisory Appraisers, and other hiring stakeholders is formally documented, analyzed, reviewed for trends, and used to improve hiring practices. Additional evidence is also needed to demonstrate that HR KPIs include hiring effectiveness and stakeholder experience measures, rather than only hiring process timeliness or activity metrics. **See Finding #7.**

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
	limited if stakeholder insights and data analytics are not solicited, analyzed, or periodically reviewed by executive management.			

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 32	Recently hired employee feedback was not used to improve onboarding practices.	Crowe recommends gathering and analyzing OTR hiring practice stakeholder feedback regarding fostering vital interpersonal relationships and information networks, providing a sense of organizational culture, and determining how well employees understand their new jobs and related expectations on a periodic and event-driven basis. We also recommend HR KPIs include hiring practice effectiveness and stakeholder experience metrics.	Disagreed - We disagree with the auditor's assessment. The OCFO has implemented several processes to ensure all employees are provided with a seamless onboarding experience. We have implemented a New Hire Orientation process that ensures all new hires understand the history of the OCFO, our organizational culture and SMARTER values, as well as relevant information related to their jobs. Feedback is solicited via a New Hire Orientation survey and is assessed to continuously improve HR service delivery and the employee experience. In addition, OHR conducts 30-, 60-, and 90-day check-in sessions with all new staff to ensure a smooth transition and to assist in data driven decision making.	**Partially Implemented –** OCFO implemented New Hire Orientation, solicits feedback through a New Hire Orientation survey, and conducts 30-, 60-, and 90-day check-ins with new staff. However, additional evidence is needed to demonstrate that feedback is consistently documented, analyzed for trends, and used to improve onboarding practices. Additional evidence is also needed to show that feedback is gathered from OTR supervisors and that onboarding effectiveness and stakeholder experience metrics are incorporated into HR KPI reporting.

ID	Finding	Recommendation	Management's Response from Prior Report	Implementation Status
22-1-25AT - 33	Human Resource Business Partner support of OTR hiring practices needs improvement. We understand that the HR Business Partner position, an employee with HR experience and available to coordinate between OTR and the OCHRO, was to be assigned to support OTR HR functions. The OTR hiring practice stakeholders we interviewed informed us that they did not receive hiring practice support from a Human Resources Business Partner.	Crowe recommends expanding HR Business Partner responsibilities to include guidance and support of OTR hiring practices. We also recommend monthly reviews of current and projected hiring needs, hiring process status, HR KPI results, potential improvements, lessons learned, and identification and resolution of current or emerging hiring practice issues.	Disagreed - We disagree with the auditor’s assessment. OHR not only reviews RPTA’s current and future needs monthly, but we hold weekly meetings with the administration to assess their ongoing needs, identity opportunities for improvement, and solicit feedback. We are proactive in our approach as it relates to RPTA’s recruiting and hiring as we have established recruitment sources, developed a pipeline of potential candidates, and have established relationships with the organizations such as the Appraiser Institute and International Association of Assessing Officers.	**Partially Implemented –** OHR reported monthly reviews of RPTA’s current and future staffing needs, weekly meetings with RPTA leadership, established recruitment sources, candidate pipelines, and relationships with appraisal-related professional organizations. However, additional evidence is needed to show that HR Business Partner responsibilities were formally expanded and that recurring reviews are documented, include HR KPI results and lessons learned, and result in documented actions to improve hiring practices.

Appendix A – Ratio Study

Assessment Performance via Ratio Studies

The subject of this review is the set of Fiscal Year 20241 appraised values of commercial properties produced by the Office of Tax and Revenue, Real Property Assessment Division (RPAD). These values were as of the market effective date of January 1, 2022. RPAD staff validated sales for analysis, which occurred in the time window of January 1, 2020, to December 31, 2022, resulting in a file of 1,749 sales that were validated by the Assessor's office. The final appraised values used in this sales ratio study were determined after most formal appeals had been resolved. This report details the project methodology as well as all project findings. This sales ratio study was conducted according to the current IAAO Standard on Ratio Studies (IAAO 2013).

Ratio Studies

The International Association of Assessment Officers (IAAO) is a nonprofit, educational and research association that promotes fair and equitable assessments and provides standards for the world-wide assessment industry. IAAO publishes standards for assessment performance and the practice of mass appraisal. This independent ratio study conforms with the IAAO Standard on Ratio Studies.

A Ratio Study is a statistical process that compares sales prices to assessed market values. Ratio Studies are commonly used to evaluate the health of assessments. Most jurisdictions report one combined ratio statistic for the entire county. This is common for the purpose of oversight, but for diagnostic purposes greater depth and detail is needed.

For each observation, market value is divided by sale price or time adjusted sale price to calculate the ratio. The resulting ratios are analyzed to calculate the median ratio, the mean ratio, and the weighted mean ratio. Of these, the median ratio is typically used to describe the overall level of assessment. The mean and weighted mean are indicators of the presence of extremely high or low ratios and are compared to the median ratio to determine the degree of distortion or variance from the median ratio. In most jurisdictions, median ratios should be close to 1.00 – which indicates that price and value are equal. The IAAO standard for level of assessment is the median ratio for all classes of property should be between 0.9 and 1.1. It is of greater importance that median ratios for the inventory when stratified – by location, price class, or property type – should be reasonably uniform. If the median ratio for the county is 0.91 all strata should have median ratios within five percentage points of 0.91, or a range of between .86 and .96.

Ratios are also analyzed for both vertical and horizontal equity. All properties that sell for the same price should have close to the same assessed value. This is called horizontal equity and is usually measured by the Coefficient of Dispersion (COD), which is the average percentage of deviation from the median ratio. Lower scores are generally better. Desirable levels vary depending on the homogeneity of the inventory. For the non-residential inventory in the District of Columbia, the target COD is less than 0.15 or 15%.

Properties in all price ranges or categories should be assessed at the same level. This is called vertical equity and is typically measured by either or both the Price Related Bias (PRB) or the Price Related Differential (PRD). PRD is calculated by dividing the mean ratio by the weighted mean ratio. Scores between 0.98 and 1.03 are ideal and considered to indicate no bias. Higher or lower scores do not necessarily indicate bias but suggest that further study is needed. PRB measures how ratios change when values are halved or doubled. PRD is one of the oldest measures of vertical equity and has largely been replaced by the PRB, which is considered to be the more reliable measure. The IAAO Standard on Ratio Studies states that the PRB must be between -0.10 and 0.10, although -0.05 to 0.05 is recommended. In particular, Part 1, Section 9.2.7 states:

The PRB provides a measure of price-related bias that is more meaningful and less sensitive to extreme prices or ratios. As a general matter, the PRB coefficient should fall between –0.05 and 0.05. PRBs for which 95% confidence intervals fall outside of this range indicate that one can reasonably conclude that assessment levels change by more than 5% when values are halved or doubled. PRBs for which 95% confidence intervals fall outside the range of –0.10 to 0.10 indicate unacceptable vertical inequities.

Standards

This sales study relies upon the technical standards promoted by the International Association of Assessing Officers in the Standard on Ratio Studies (IAAO 2013). The standards set measures of assessment performance for appraisal level and uniformity that recognize there is always some degree of imperfection in appraised values.

The following standards are used in this sales ratio study:

The IAAO Standard on Ratio Studies states that the median sales ratio should be between 90% and 110% and that the median for each class of property must be within five percentage points of the overall level of appraisal.

Section 9.1 of Part 1 states:

"In analyzing appraisal level, ratio studies attempt to measure statistically how close appraisals are to market value (or to a required statutory constraint that can be expressed as a percentage of market value) on an overall basis. While the theoretically desired level of appraisal is 1.00, an appraisal level between 0.90 and 1.10 is considered acceptable for any class of property. However, each class of property must be within 5 percent of the overall level of appraisal of the jurisdiction (see Section 9.2.1 in this part). Both criteria must be met."

The appropriate standard range for the COD is based on the type of property and other information. See table 1-3 on the following page summarizing these standard ranges. This study primarily covers income-producing properties in a large jurisdiction with high property density. Therefore, the COD standard used in this study is 5% to 15%.

Table 1-3. Ratio Study Uniformity Standards indicating acceptable general quality*

Type of property—General	Type of property—Specific	COD Range**
Single-family residential (including residential condominiums)	Newer or more homogeneous areas	5.0 to 10.0
Single-family residential	Older or more heterogeneous areas	5.0 to 15.0
Other residential	Rural, seasonal, recreational, manufactured housing, 2–4 unit family housing	5.0 to 20.0
Income-producing properties	Larger areas represented by large samples	5.0 to 15.0
Income-producing properties	Smaller areas represented by smaller samples	5.0 to 20.0
Vacant land		5.0 to 25.0
Other real and personal property		Varies with local conditions

These types of property are provided for guidance only and may not represent jurisdictional requirements.

** Appraisal level for each type of property shown should be between 0.90 and 1.10, unless stricter local standards are required.*

PRD's for each type of property should be between 0.98 and 1.03 to demonstrate vertical equity.

PRD standards are not absolute and may be less meaningful when samples are small or when wide variation in prices exist. In such cases, statistical tests of vertical equity hypotheses should be substituted (see table 1-2).

*** CODs lower than 5.0 may indicate sales chasing or non-representative samples.*

Ratio Study Design and Process

Data Used

Sales ratio studies utilize appraisal data and sale data. In this study, appraisal data included post-appeal total assessed values from three points in time – prior to the reassessment, immediately following the reassessment and current values for FY 2024, which take appeals and retroactive adjustments by the Assessor into consideration - and property descriptive information for commercial properties.

Appraisal data was from FY 2024, with an effective appraisal date of January 1, 2023. Sale data included property description information, sale dates, sale prices, and sale validity codes. In addition, data was obtained that described use codes (property types) both at time of sale and current and also use code groups, and nine submarket areas.

This sales ratio study included multiple parcel sales. In many jurisdictions the sales are a minor contributor to the market. In the District of Columbia, these sales are more common and must be considered in a ratio study. For these sales, the total assessed value was summed up over the constituent parcels. The use code and neighborhood for these sales was chosen to be that of the principal parcel or highest-valued parcel in the transaction. If any of the constituent parcels are either over-valued or under-valued, it affects the accuracy of the aggregated value. While this is the best approach available, there is no way to quantify the added value of assembling the parcels, and there will be a tendency to undervalue these assemblages.

When there has been a significant change to the property between the date of sale and the date of valuation, the relationship between price and value may be invalidated. Therefore, a comparison of key attributes at time of valuation with those at time of sale is required. Section 3.5 of the Standard on Ratio Studies states:

The appraiser must ascertain whether the property rights transferred, the permitted use, and the physical characteristics of the property on the date of assessment are the same as those on the date of sale. If the physical characteristics of the property have changed since the last appraisal, adjustments may be necessary before including the property in a ratio study. Properties with significant differences in these factors should be excluded from the ratio study estimated use code at time of sale must be equal to the use code as of the date the commercial file was extracted.

Filters

The following filters were applied to the merged data file:

- Sales Validity Code must be either "01", "M1", "09", or "M9."
- Property must be active as of the date the commercial file was extracted (DEL_CODE = "N")
- Use Code at time of sale must equal current Use Code.
- Use Code group must be either "Office", "Retail", "Residential Multi-Family", "Residential
- Transient", "Special Purpose", "Commercial Specific Purpose", or "Industrial". These were organized into portfolios that included Apartment, Hospitality-Lodging, Office, Retail, Industria-Warehouse and Special Purpose.
- Total Assessed Value must be greater than zero.
- Sale must have occurred between January 1, 2020, and December 31, 2022.

Time Trending

Three years of sales were used in order to expand the number of sales available for accuracy or measurement and to support stratification. This time span included both pre-covid, covid, and post-covid sales. Across the world, Office and Retail markets suffered greatly during and immediately after Covid but are currently rebounding. Residential and Apartment markets exploded during and immediately after Covid and are just beginning to cool. The Industrial market, particularly warehouses, also exploded during and immediately after Covid and continues to grow. Three regression models were used that controlled for Use, Submarket, Building size and Lot size to isolate the effects of time on price. Time trends were computed for each model and used to adjust sales to the appraisal date of January 1, 2023. The adjusted sale prices were used in the calculation of the ratio study statistics.

The model for Retail, Office and Hospitality resulted in a period of rapid increase between two flat periods for an overall 15.2% increase over the three-year period as shown in figure 1. This does not conform to the typical pattern of decline during Covid followed by a post-Covid recovery.

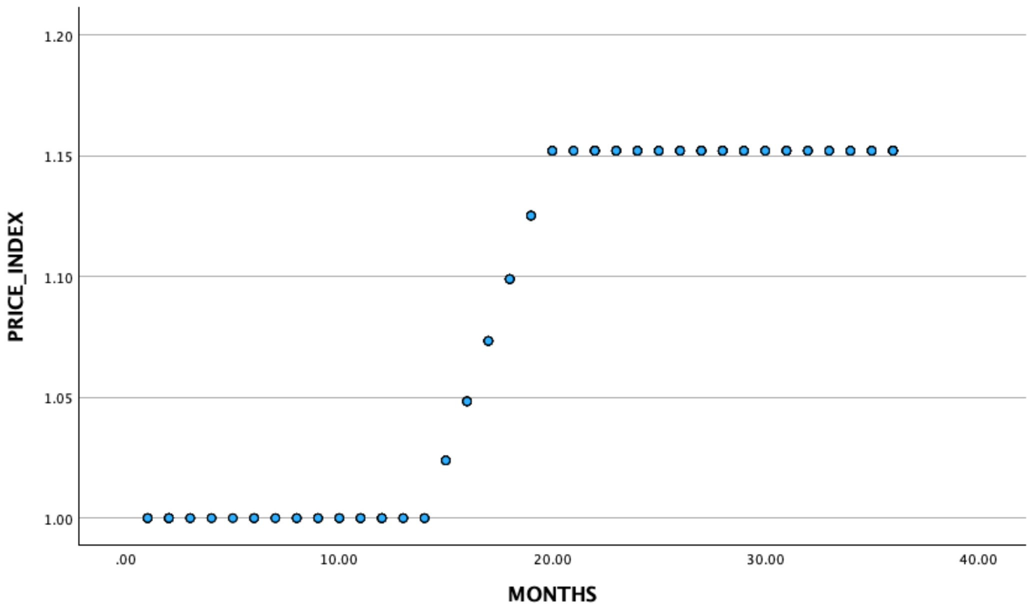


Fig 1 Time trend for Retail, Office and Hospitality

The model for Apartments resulted in a period of rapid increase between two flat periods for an overall 15.9% increase over the three- year period as shown in figure 2. This does not conform to the typical pattern of constant and rapid growth across the entire time period.

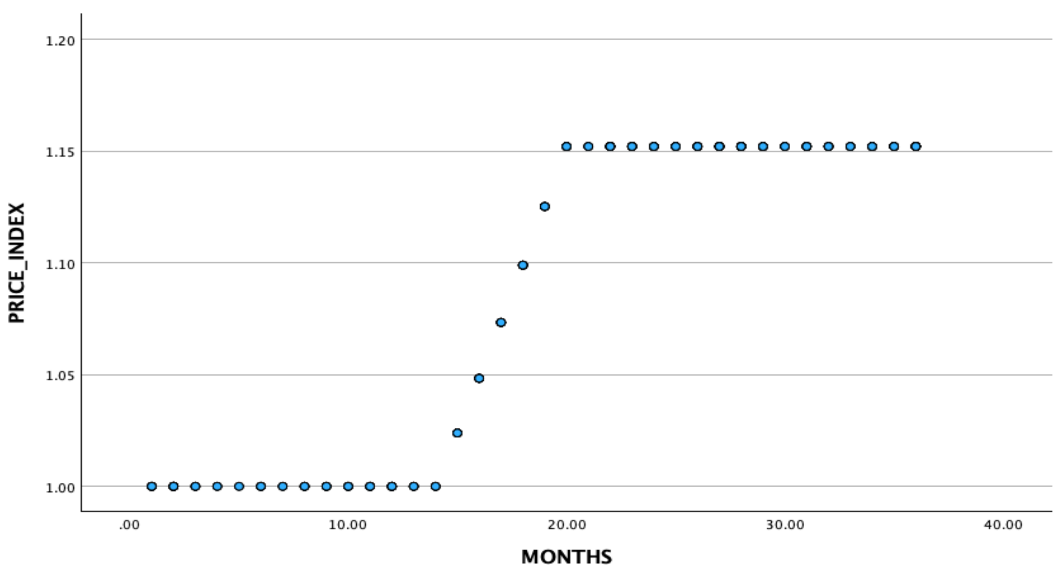


Fig 2 Time trend for Apartments

The model for Industrial and Special Purpose resulted in a period of rapid increase between two flat periods for an overall 57.9% increase over the three- year period as shown in figure 3. This aligns with the typical pattern of explosive growth post-Covid, followed by a cooling period.

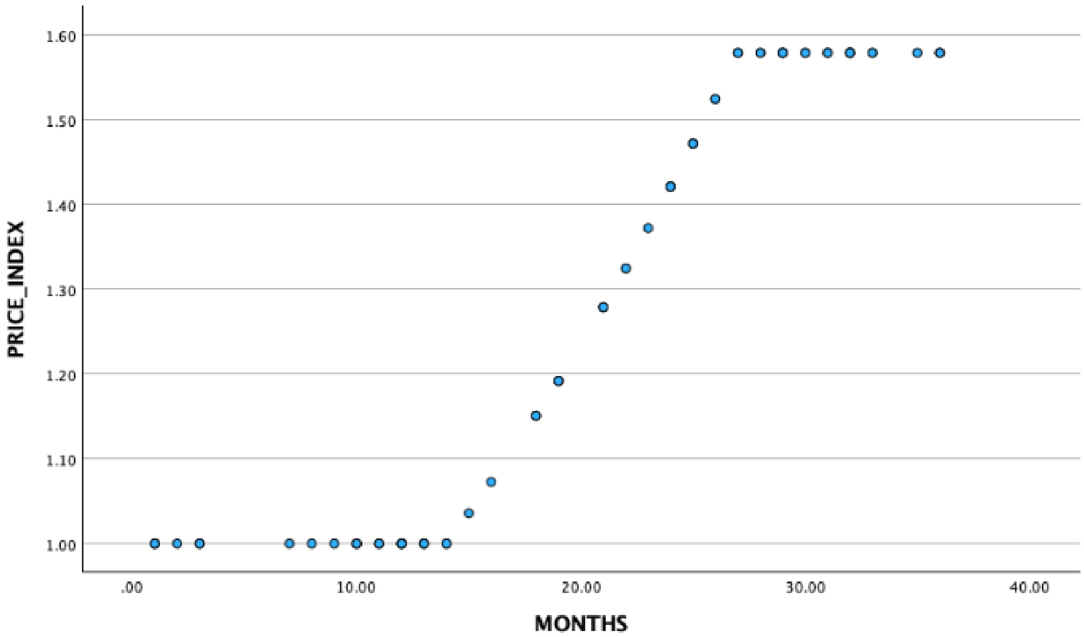


Fig 3 Time trend for Industrial and Special Purpose

Stratification

Sales ratios results were stratified by portfolio, submarket area, and single parcel vs multi-parcel aggregates.

Outlier Trimming

When using sales for valuation, as in building regression models or running a ratio study, it is important to remove transactions that are outliers or do not representative of typical market activity. The most common methods of removing outliers are simple truncation or Inter-Quartile Range (IQR). Both techniques require ranking all ratios from highest to lowest.

Simple truncation removes the same percentage of ratios from the top and bottom of the arrayed data. IAAO allows for removal of up to 10% of ratios from a large sample size through truncation. Determining the optimal percentage of transactions to remove can be problematic. The technique also assumes that outliers are evenly distributed at both ends of the ratio array.

The IQR method calculates the range between the 25th and 75th percentiles, subtracts the range multiplied by either 1.5 or 3 from the 25th and adds the range multiplied by either 1.5 or 3 to the 75th percentile and truncates cases with ratios higher or lower than the result. Many assessment oversight agencies use the IQR method. Either method is useful for reporting one set of statistical performance measures for the entire jurisdiction. Neither should be used if the purpose of the ratio study is diagnostic in nature. If a submarket is highly over-assessed or under-assessed, one runs the risk of eliminating all of the observations that would expose that submarket's performance.

Perhaps the best method of outlier removal is through the use of studentized residuals. The process uses regression models to precisely identify and disqualify transactions that exert undue influence on the model. Those transactions are removed from the ratio study.

For this study, the Assessor trimmed out all sales with ratios of less than .4 or greater than 1.6, based on knowledge of typical behavior in the market. Studentized residuals were used in regression models to identify and remove outliers. Note that all sales where the use code at time of sale did not match the current use code were also identified as outliers. Overall, 56 (8.9%) of cases were removes as outliers.

Statistics Calculated

The median sales ratio serves as the statistic used to measure appraisal level. The coefficient of dispersion (COD) serves as the statistic used to measure general appraisal uniformity. The coefficient of price-related bias (PRB) serves as the statistic used to measure the degree of vertical inequity. This study computes 90% two-sided confidence interval bounds for all statistics and uses them to determine compliance with IAAO Standards.

Median sales ratios and coefficients of dispersion are compared between strata to look for potential non-uniformity. Price related bias only applies *within* a stratum. It is not useful to compare PRBs between strata.

Caveats

There are several caveats in this analysis:

- The final appraisal data file is extracted at the latest date to capture all FY 2024 post-appeal assessment changes, but it is possible that some values were still under appeal.
- Because this study uses post appeals values, it effectively is evaluating both the assessment system and the appeals system.
- The use code at time of sale in the data provided was estimated as closely to the sale date as possible.
- Because of the degree of stratification employed and the scope of work identified for this project, a sales sample representativeness analysis was not conducted. All sales were used with equal weight in the analysis.
- Because of the scope of work identified for this project, an analysis of selective reappraisal was not conducted. However, it is recommended that such internal or external reviews in the future include such an analysis.

Results

On the following pages, we have included summaries of the results of our statistical analysis.

The final assessments do not exist in a vacuum. It is useful to understand if, and the degree to which, the final statistics represent improvement in assessment performance.

Overall statistics are presented:

- From prior to the reassessment FY2023 values as a baseline from which improvement may be measured.
- From the initial reassessed FY2024 (interim) values as a "pure" indication of the quality of work by the Assessor
- From the final (current) FY2024 values, which includes appeals and retroactive actions of the Assessor.

Of these three measurements, the final (current) FY2024 values are considered to be the best indicator of performance and are ultimately relied upon for this study.

Prior Statistics

Ratio Statistics for PriorMV / TASP

		95% Confidence Interval for Median				95% Confidence Interval for Price Related Bias		
N	Median	Lower Bound	Upper Bound	Actual Coverage	Price Related Bias	Lower Bound	Upper Bound	Coefficient of Dispersion
574	.741	.727	.757	95.0%	-.004	-.019	.011	.219

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Interim Statistics

Ratio Statistics for Interim MV / TASP

N	Median	95% Confidence Interval for Median Lower Bound	95% Confidence Interval for Median Upper Bound	95% Confidence Interval for Median Actual Coverage	Price Related Bias	95% Confidence Interval for Price Related Bias Lower Bound	95% Confidence Interval for Price Related Bias Upper Bound	Coefficient of Dispersion
574	.903	.891	.910	95.0%	-.014	-.028	.001	.172

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Final Statistics

Ratio Statistics for Final MV / TASP

N	Median	95% Confidence Interval for Median Lower Bound	95% Confidence Interval for Median Upper Bound	95% Confidence Interval for Median Actual Coverage	Price Related Bias	95% Confidence Interval for Price Related Bias Lower Bound	95% Confidence Interval for Price Related Bias Upper Bound	Coefficient of Dispersion
574	.900	.880	.906	95.0%	-.007	-.025	.011	.188

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Prior to the reassessment, the median ratio had fallen to .727, which is far below the IAAO standard of .9. The PRB conformed to the recommended standard of between -.05 and .05. The coefficient of Dispersion was well above the IAAO recommended standard of .15.

The interim values represented improvement. The median ratio was raised to a level that just meets the IAAO standard. The PRB conformed to the recommended standard of between -.05 and .05. The Coefficient of Dispersion, although better, was still above the IAAO recommended standard of .15.

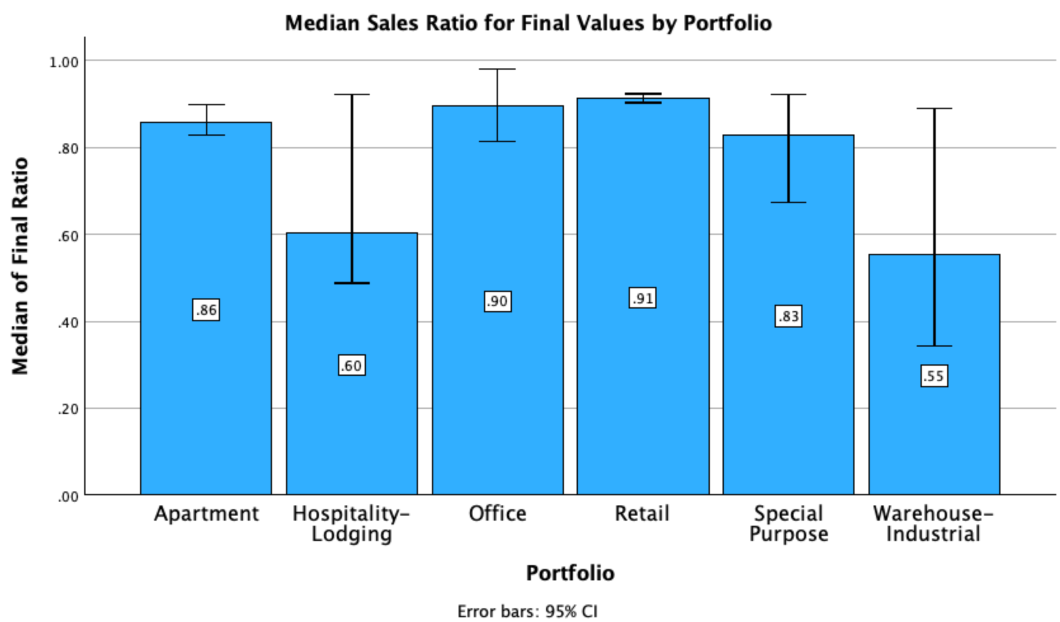
The Final values show a slight loss in performance. Reductions through appeals lowered the median ratio. The PRB still conformed to the recommended standard of -.05 and .05. The Coefficient of Dispersion rose slightly and was still above the IAAO recommended standard of .15.

Conclusions

- The overall median sales ratio is 90%, which is right at the IAAO limit for level of appraisal.
- The overall COD is 18.8%; this COD is statistically significantly above 15%, falling outside the IAAO standard range of 5% to 15% and indicates that improvement is needed in horizontal equity.
- The overall PRB is -0.007; this falls within the IAAO standard range of -0.10 to 0.10 and does not indicate vertical inequity.

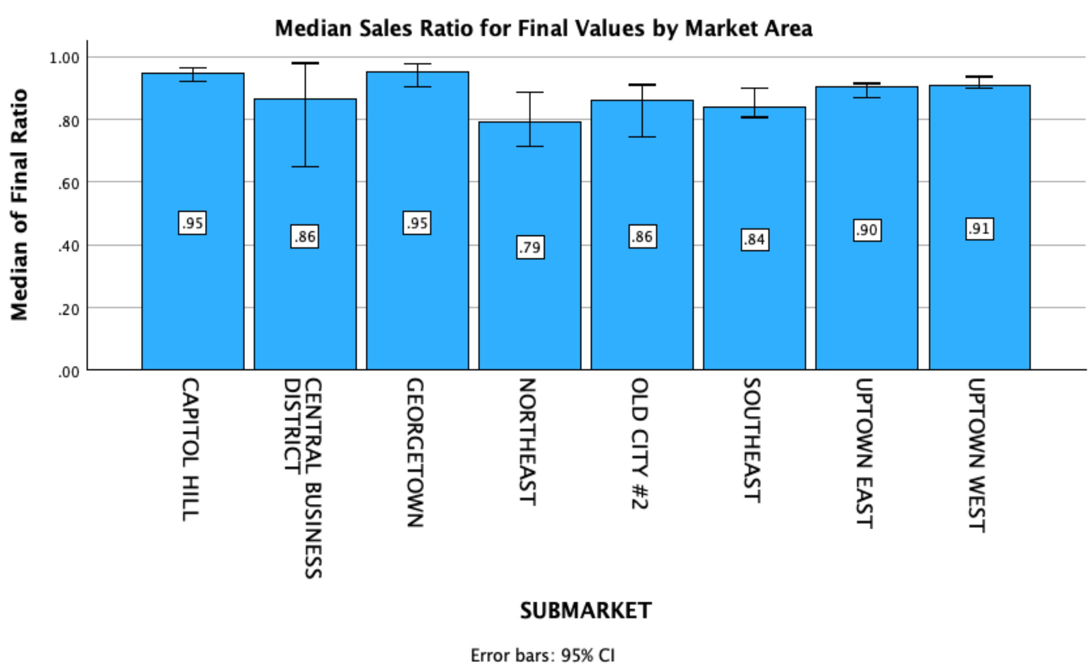
Median Ratio by Portfolio

The level of assessment falls within 5% of the overall median ratio of .9 in the Apartment, Office and Retail strata, but is significantly out of tolerance in the Hospitality-Lodging, Special Purpose and Warehouse-Industrial strata.



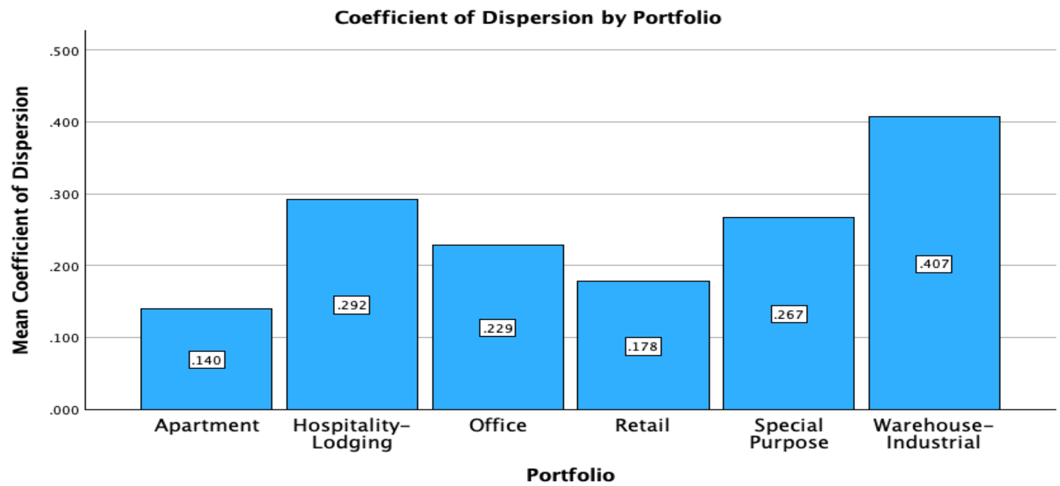
Median Ratio by Submarket

The level of assessment falls within 5% of the overall median ratio of .9 in all but the Northeast and Southeast submarkets.



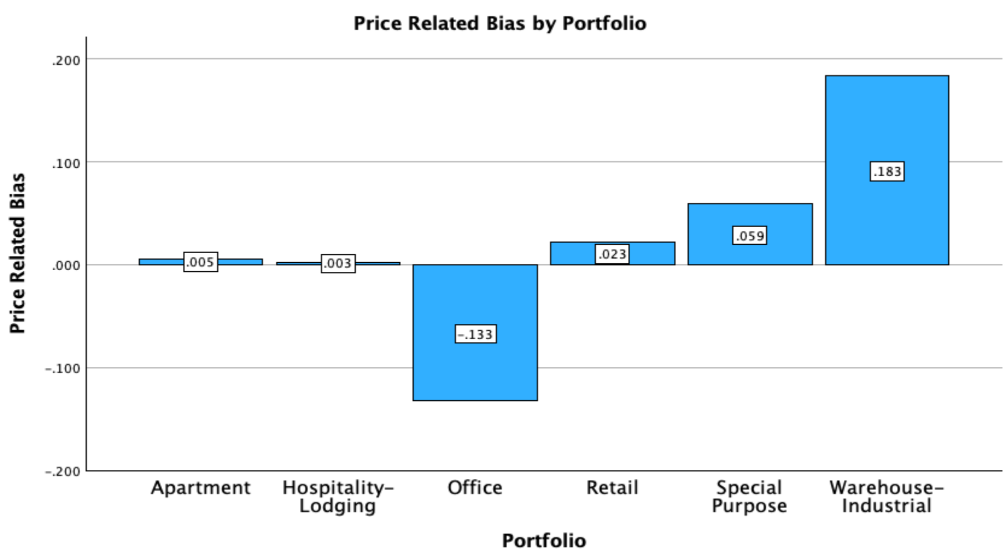
Coefficient of Dispersion by Portfolio

The COD falls within the IAAO recommendation of below .15 in only the Apartment stratum. Greater variance and higher CODs are expected in the Special Purpose, Warehouse-Industrial and Hospitality-Lodging strata. These properties are traditionally the most difficult to mass appraise. It must be noted that the CODs for these strata are well above the IAAO of .20.



PRB by Portfolio

Overall PRB is within the IAAO recommended standard of -.05 and .05. When stratified, only Offices and Warehouse-Industrial strata are outside of the IAAO tolerance of -.1 and .1. This is not unusual when "Office" ranges from Class A+ through Class C, and "Warehouses" include the new class of mega-warehouses that have become popular since COVID.



Examination of ratio statistics pre and post reassessment show significant improvement in the level of assessment in all portfoilos and submarkets. Still, the level of assessment falls below .9 in all but the Retail portfolio and the CBD, Northeast, Old City, and Southeast submarkets. The Coefficient of Dispersion is above .15 in all but the Apartment portfolio and the Georgetown submarket.

Prior Statistics by Portfolio

Ratio Statistics for PriorMV / TASP by Portfolio

Group	N	Median	95% Confidence Interval for Median Lower Bound	95% Confidence Interval for Median Upper Bound	95% Confidence Interval for Median Actual Coverage	Price Related Bias	95% Confidence Interval for Price Related Bias Lower Bound	95% Confidence Interval for Price Related Bias Upper Bound	Coefficient of Dispersion
Apartment	159	.755	.736	.776	96.1%	-.012	-.031	.006	.152
Hospitality-Lodging	14	.587	.473	.961	98.7%	.005	-.118	.128	.310
Office	54	.865	.785	.921	96.0%	-.132	-.198	-.067	.221
Retail	302	.733	.705	.749	95.6%	.021	-.005	.047	.221
Special Purpose	23	.676	.580	.897	96.5%	.006	-.111	.124	.281
Warehouse-Industrial	22	.477	.343	.554	98.3%	.153	.018	.287	.334
Overall	574	.741	.727	.757	95.0%	-.004	-.019	.011	.219

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Final Statistics by Portfolio

Ratio Statistics for Final MV / TASP by Portfolio

Group	N	Median	95% Confidence Interval for Median Lower Bound	95% Confidence Interval for Median Upper Bound	95% Confidence Interval for Median Actual Coverage	Price Related Bias	95% Confidence Interval for Price Related Bias Lower Bound	95% Confidence Interval for Price Related Bias Upper Bound	Coefficient of Dispersion
Apartment	159	.858	.828	.899	96.1%	.005	-.015	.025	.140
Hospitality-Lodging	14	.603	.488	.922	98.7%	.003	-.113	.118	.292
Office	54	.897	.814	.982	96.0%	-.133	-.200	-.066	.229
Retail	302	.913	.904	.924	95.6%	.023	-.012	.057	.178
Special Purpose	23	.829	.674	.923	96.5%	.059	-.052	.171	.267
Warehouse-Industrial	22	.553	.344	.889	98.3%	.183	.034	.333	.407
Overall	574	.900	.880	.906	95.0%	-.007	-.025	.011	.188

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Prior Statistics by Submarket

Ratio Statistics for PriorMV / TASP by Submarket

Group	N	Median	95% Confidence Interval for Median Lower Bound	95% Confidence Interval for Median Upper Bound	95% Confidence Interval for Median Actual Coverage	Price Related Bias	95% Confidence Interval for Price Related Bias Lower Bound	95% Confidence Interval for Price Related Bias Upper Bound	Coefficient of Dispersion
CAPITOL HILL	101	.767	.722	.792	95.4%	-.020	-.055	.015	.200
CENTRAL BUSINESS DISTRICT	41	.788	.628	.919	97.2%	-.087	-.137	-.036	.303
GEORGETOWN	38	.789	.725	.880	96.6%	-.009	-.082	.064	.171
NORTHEAST	62	.662	.573	.733	97.0%	.036	-.014	.087	.257
OLD CITY #2	53	.726	.653	.826	97.3%	.015	-.064	.093	.267
SOUTHEAST	107	.746	.697	.781	96.7%	.007	-.030	.044	.202
UPTOWN EAST	121	.733	.692	.757	95.5%	.000	-.027	.028	.184
UPTOWN WEST	51	.754	.729	.820	95.1%	.000	-.056	.056	.208
Overall	574	.741	.727	.757	95.0%	-.004	-.019	.011	.219

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Final Statistics by Submarket

Ratio Statistics for Final MV / TASP by Submarket

Group	N	Median	95% Confidence Interval for Median			Price Related Bias	95% Confidence Interval for Price Related Bias		Coefficient of Dispersion
			Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound	
CAPITOL HILL	101	.946	.920	.964	95.4%	.066	.002	.129	.186
CENTRAL BUSINESS DISTRICT	41	.864	.648	.979	97.2%	-.083	-.127	-.038	.279
GEORGETOWN	38	.950	.905	.978	96.6%	-.055	-.116	.006	.130
NORTHEAST	62	.791	.713	.886	97.0%	.009	-.044	.062	.246
OLD CITY #2	53	.862	.744	.910	97.3%	-.015	-.080	.049	.201
SOUTHEAST	107	.841	.806	.899	96.7%	-.028	-.075	.019	.178
UPTOWN EAST	121	.902	.869	.914	95.5%	-.018	-.047	.012	.154
UPTOWN WEST	51	.910	.900	.936	95.1%	-.007	-.062	.047	.158
Overall	574	.900	.880	.906	95.0%	-.007	-.025	.011	.188

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

In many jurisdictions sales that involve multiple parcels are a minor contributor to the market. In the District of Columbia, these sales are more common and were considered in this ratio study. Comparison of performance between single parcel and multi-parcel sales is useful. Prior to the reassessment, the level of assessment for both groups was equal, but disparity arose in the reassessment, with significant undervaluation of multi-parcel sales observed. This suggests that addition value from plottage should be considered in the valuation process. The COD for single parcel sales improved but actually increased for multi-parcel sales. To some degree this may be due to the wide variety of parcel types that are included in these sales. Like the overall COD, these were above the IAAO standard of .15.

Prior Statistics for Single Parcel or Multi-Parcel Sales

Ratio Statistics for PriorMV / TASP

Group	N	Median	95% Confidence Interval for Median			Price Related Bias	95% Confidence Interval for Price Related Bias		Coefficient of Dispersion
			Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound	
Single Parcel	492	.741	.720	.758	95.8%	-.002	-.020	.016	.213
Multi-Parcel	82	.741	.697	.771	96.5%	-.019	-.056	.018	.257
Overall	574	.741	.727	.757	95.0%	-.004	-.019	.011	.219

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

Final Statistics for Single Parcel or Multi-Parcel Sales

Ratio Statistics for Final MV / TASP

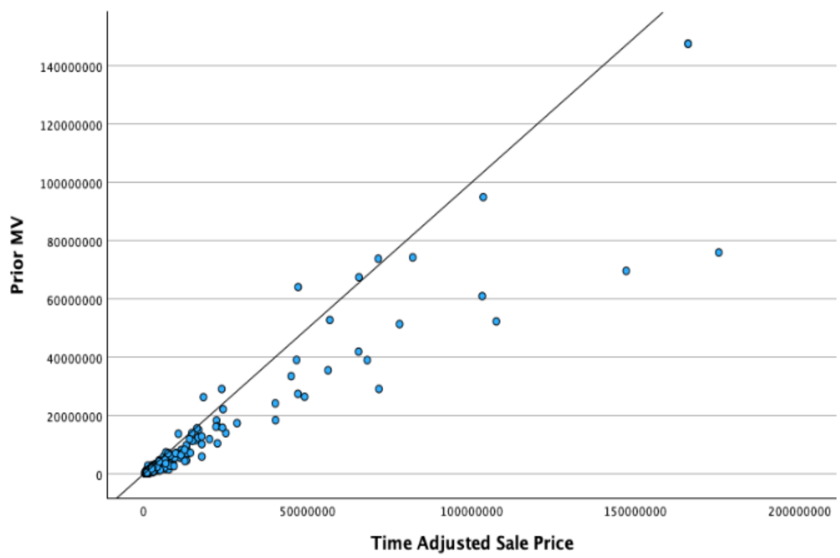
Group	N	Median	95% Confidence Interval for Median			Price Related Bias	95% Confidence Interval for Price Related Bias		Coefficient of Dispersion
			Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound	
Single Parcel	492	.904	.897	.913	95.8%	.004	-.017	.025	.176
Multi-Parcel	82	.807	.743	.873	96.5%	-.035	-.083	.013	.262
Overall	574	.900	.880	.906	95.0%	-.007	-.025	.011	.188

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level.

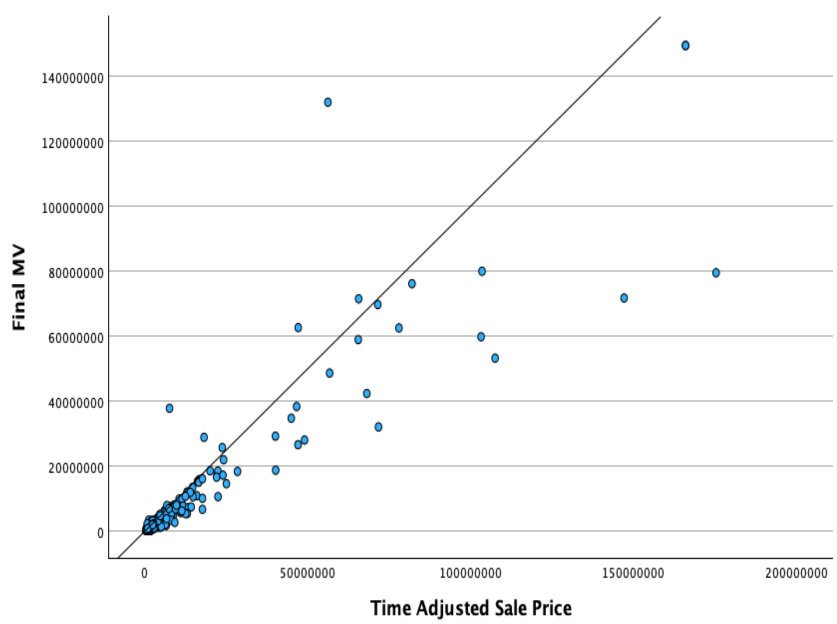
Scatterplots of Prior vs Final Ratios

These scatterplots visualize comparative assessment performance before and after the FY2024 revaluation project. Each dot represents the point where TASP and value intersect. The fit line is where TASP and value would be equal. It is desirable for points to fall close to the fit line. Points above the line are over-valued, while those below the line are under-valued. The expectation is that points will fall closer to the fit line following a reassessment. In these scatterplots, many of the points in the lower end of the price spectrum fall closer to the line after the reassessment. However, performance among higher priced properties appears to be about the same or worse. This is an indication that the valuation process is less accurate among higher valued properties.

Prior MV



Final MV



Summary of Ratio Study Results

The FY 2024 reassessment generated significant improvement over the FY2023 set of assessments but fell short of reaching the IAAO standards in terms of the median level of assessment and horizontal equity.

- Apartment, Industrial-Warehouse, Hospitality-Lodging, Special Purpose, and Office portfolios all have median sales ratios statistically significantly below 90%, falling below the IAAO standard range of 90% to 110% for the appraisal level. It should be noted that the median sales ratio for industrial properties is 55.3%. The overall level of assessment of 90% barely meets the IAAO standard.
- The overall COD and the CODs of all but the Apartment portfolio fell outside the IAAO standard range of 5% to 15%.
- There is a wide disparity between the median sales ratios across portfolios, most notably demonstrated between Industrial (55.3%) and Retail portfolios (91.3%). This degree of difference shows a lack of uniformity between portfolios.
- The Hospitality-Lodging, Special Purpose and Warehouse-Industrial portfolios are not within five percentage points of the overall median sales ratio (90.3%), which further indicates a lack of uniformity between property types.
- Overall PRB falls within the IAAO standard range of -0.10 to 0.10. When stratified, all but the Office and Warehouse-Industrial strata meet the standard for PRB.

Recommendations

- Improve data collection processes and data quality.
- Collect data to support income-based valuation for income producing properties.
- Shift to sales and income-based valuation models and methods for income producing properties.
- Create a process to estimate additional plottage value for multi-parcel transactions.
- Adjust sales for time to calibrate models as part of the reassessment process.

Appendix B – Acronyms & Definitions

Acronym	Definition
AAS	Assessment Administration Specialist
ASB	Appraisal Standards Board
AVM	Automated Valuation Models
CAE	Certified Assessment Evaluator
CAMA	Computer-Assisted Mass Appraisal System
CAP	Corrective Action Plans
CID	Audit and Criminal Investigations Division
COD	Coefficient of Dispersion
EEOC	Equal Employment Opportunity Commission
DC	District of Columbia
GAGAS	Generally Accepted Government Auditing Standards
GAO	U.S. Government Accountability Office
HCF	Human Capital Framework
IAAO	International Association of Assessing Officers
IRS	Internal Revenue Service
IQR	Inter-Quartile Range
KPI	Key Performance Indicator
MAI	Member of the Appraisal Institute
MITS	Modern Integrated Tax System
OCFO	Office of the Chief Financial Officer
OCHRO	Office of the Chief Human Resources Officer
OCRO	Office of the Chief Risk Officer
ODCA	Office of the DC Auditor
OIG	Office of the Inspector General
OIO	Office of Integrity and Oversight
OPM	U.S. Office of Personnel Management
OTR	Office of Tax and Revenue
PRB	Price Related Bias
PRD	Price Related Differential
RES	Residential Evaluation Specialist
RPAD	Real Property Assessment Division
RPTA	Real Property Tax Administration

Acronym	Definition
RPTAC	Real Property Tax Appeals Commission
RIU	Return Integrity Unit
USPAP	Uniform Standards of Professional Appraisal Practice

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