



CITY OF VANCOUVER INTERNAL AUDIT REPORT Time Reporting and Payroll Audit

EXECUTIVE SUMMARY

April 17, 2025

The Time Reporting and Payroll audit was initiated to assess the adequacy and effectiveness of the processes and internal controls in place to ensure the accuracy and validity of time entry and payroll data. In addition, the audit evaluated compliance with relevant City policies and the efficiency of existing processes.

In our opinion, internal controls over time reporting processes require improvement. There is an opportunity to improve current processes by reducing reliance on manual time entry and approvals thereby increasing the efficiency of time reporting. Strengthening awareness of managerial review processes, improving training provided to staff responsible for time entry, and enhancing monitoring of payroll access controls will improve time entry accuracy and further mitigate the risk of invalid payroll.

The more significant findings and recommendations are:

E.1 Improve accuracy and explore options for automation of time entry processes

Inaccuracies in time entry data are a direct cause of payroll errors and can lead to under or over payments to staff. Current time entry processes involve primarily manual time entry, and errors were identified through our sample review. Management has agreed to communicate a reminder on the importance of time entry accuracy and work with Technology Services to conduct a feasibility analysis for increasing automation of time entry and manager approval processes.

E.2 Ensure adequate management review of time entered in SAP (CATS)

As the CATS time entry system does not have an automated approval workflow, managerial review of time entry data is important to ensure accuracy of hours entered by time entry administrators in SAP. There is currently a lack of consistent review of time entry data by business unit managers. Payroll management has agreed to enhance training and reference materials on time entry review processes for managers.

These and other findings and recommendations are detailed in the following report. Payroll management has agreed to address the findings noted and has committed to implement the recommended action items.

Handwritten signature of Carmen Fuellbrandt in black ink.

Carmen Fuellbrandt, CPA, CMA, CIA
Chief of Internal Audit

Handwritten signature of Jennifer Chow in black ink.

Jennifer Chow, CPA, CMA, CIA
Senior Internal Auditor

A. BACKGROUND

The City's time reporting processes are decentralized among departments, whereby each department is responsible for entering staff hours worked into a central time recording system. The City uses the SAP enterprise resource planning system for recording time entries and payroll processing.

Time reporting and payroll organizational structure

The Payroll Services team within the Financial Services Accounting Operations department is responsible for overall coordination of payroll services for the City. The Payroll Time Entry policy (AF-011-01) guides the City's processes for time entry and payroll. In addition to the central Payroll department, there are separate teams at the Vancouver Police Department (VPD), Vancouver Fire and Rescue Services (VFRS), and Vancouver Public Library (VPL) that are responsible for time entry and reporting for their respective departments.

Positive and exception time reporting

There are primarily two types of City employees with respect to time reporting: 1) positive time reporters and 2) exception time reporters. Positive time reporters are required to report all time worked in order to be paid, whereas exception time reporters require only the reporting of absences or other exceptions to their regular work schedule. The City of Vancouver's total staff remuneration paid in 2024 was \$763 million¹.

Time entry methods

The City employs the following two key methods for time entry:

1. Cross Application Time Sheet (CATS) system

The CATS system is a time recording module within the SAP enterprise resource planning system where time entry data is inputted. Time entry is performed by administrative staff using the CATS system on behalf of staff working in their respective department. There are currently 389 staff performing time entry as part of their job duties at the time of this review. The CATS system was not configured with an automated approval workflow when it was originally implemented at the City. As such, approval of timesheets occurs outside of the CATS system by email or physically signed timesheets.

2. Employee Self-Service (ESS)

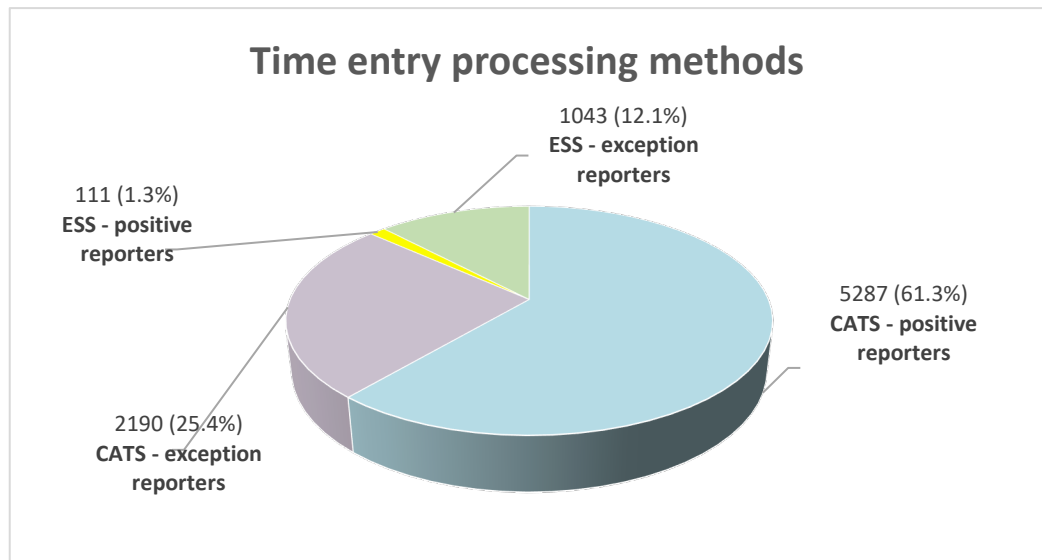
Some departments use SAP Employee Self-Service for time entry, where hours are entered directly into SAP by the employee and automatically work flowed to their manager for review and

¹ City of Vancouver 2024 Statement of Financial Information Schedule of Remuneration p.127. This figure does not include Vancouver Police Department salaries.

approval. The ESS application is an interface linked to the CATS system and requires all time entries to be approved by a manager before being sent for payroll processing.

Figure 1 below illustrates the number of City staff that are positive and exception reporters, and the methods used for time entry². The majority of City staff (87%) have their time entered by a time entry administrator through CATS, which is not configured with a system control enforcing manager approval of time entered. Further, staff using the CATS system are primarily positive time reporters (61.3%), which leads to a higher risk of errors due to the need for manual data entry of hours worked. Comparatively, 13% of City staff use ESS to record their own time in SAP.

Figure 1: Time Entry Processing Methods



B. SCOPE

The Time Reporting and Payroll audit was initiated to provide reasonable independent assurance that the related internal controls over the accuracy and validity of time entry and payroll data were adequate and effective. In addition, compliance with City policies and efficiency of existing processes was reviewed. Our work included review of:

- Roles and responsibilities of staff involved with time reporting processes;
- Controls over the accuracy and timeliness of time entry data;
- Approval and monitoring processes; and
- Access controls over payroll related information.

This audit covered the period from January 1, 2023 to June 30, 2024 and was completed through interviews with management and staff, review of existing policies and procedures, sample testing and data analysis.

The audit was not designed to exclusively detect fraud but serves as an evaluation of internal controls used to detect or mitigate fraud. Accordingly, there should be no such reliance.

² Excluding Vancouver Police Department, Vancouver Public Library, and Vancouver Fire and Rescue Services.

C. CONCLUSION

In our opinion, internal controls over time reporting processes require improvement. There is an opportunity to improve current processes by reducing reliance on manual time entry and approvals thereby increasing the efficiency of time reporting. Strengthening awareness of managerial review processes, improving training provided to staff responsible for time entry, and enhancing monitoring of payroll access controls will improve time entry accuracy and further mitigate the risk of invalid payroll.

Findings and recommendations have been discussed with appropriate management and responses incorporated in this report.

D. RISK ANALYSIS

The potential significant risks considered if controls were not in place are:

Risk Category	Potential Impact
Financial Implications	Inaccuracy of time entered may lead to payroll errors and potential financial loss.
Operational Efficiency	Relying on manual processes for time entry increases the likelihood of errors and inefficiencies.
Access Controls	Inappropriate access and lack of segregation of duties increases the risk of payroll fraud and potentially compromises data integrity.

E. AUDIT ISSUES, RECOMMENDATIONS AND MANAGEMENT RESPONSES

E.1 Improve accuracy and explore options for automation of time entry processes

The CATS module in SAP requires hours and attendance codes to be manually entered by designated departmental time entry staff as it is not integrated with staff work schedules. With a manual based time entry process, there is an inherent risk of data entry errors given the various work schedules and attendance codes used in accordance with collective bargaining agreements. For example, a premium pay attendance code can be applied for some eligible staff working a night or graveyard shift. Therefore, management review is a key control to ensure the accuracy of both time entered and ultimately the amount paid to staff.

Out of 30 time entry samples reviewed involving additional pay such as premium pay, overtime, or acting pay, the following issues were noted regarding the accuracy, approval and timeliness of time entries:

- three entries (10%) contained an incorrect attendance code or incorrect number of hours;
- one timesheet (3%) did not have evidence of manager or supervisor approval; and
- two entries (7%) were not approved in a timely manner due to the manager being on vacation.

The issues identified above were notified to appropriate management for corrective action and pay adjustments as needed.

Improving efficiency and automation of time entry approvals

Along with the above noted issues surrounding the accuracy of time entry, there is an opportunity to gain efficiencies through exploring automation and modernization of time reporting systems. Currently the majority (87%) of City staff have their time entered manually by administrative staff on their behalf through the CATS time entry module. This system was implemented over two decades ago and has some limitations including:

- lack of an automated approval workflow, which necessitates manager approvals outside of the system through manual processes such as signed timesheets;
- reliance on manual input of time entry data due to not being integrated with scheduling systems, which increases the likelihood of errors;
- restrictive reporting and analytical capabilities, where multiple reports are sometimes needed to extract data to conduct analysis for business intelligence purposes; and
- lack of integration with City banking information limiting timely reconciliation of payroll amounts.

Technology Services has indicated that a software demand request has been catalogued to review market options for time reporting system solutions in the future that are more efficient and enable integration with other City system interfaces including for scheduling, employee hiring, and banking information. An improved system solution would ideally have an automated approval workflow eliminating the need for manual approvals, improved reporting capabilities and better support current time reporting processes.

Recommendations:

E.1.1 The Associate Director, Accounting Operations should communicate a reminder to business unit management to reinforce the importance of accurate time entries and manager review and approval of timesheets on a timely basis. This should be completed by September 30, 2025.

E.1.2 The Associate Director, Accounting Operations and Manager, Payroll should work with Technology Solutions to conduct a feasibility analysis for increasing automation of time entry and manager approval processes. This should include assessment of business unit specific requirements to improve efficiencies in time entry. This assessment should be completed by December 31, 2026.

Management Response:

Please check one:

- ☒ Agree with the findings
☐ Disagree with the findings

Please check one:

- ☒ Agree with the recommendations
☐ Disagree with the recommendations

Management Action Plan:

E.1.1 – Management will communicate as required

E.1.2 – Management will request TS to explore a feasibility study

E.2 Ensure adequate management review of time entered in CATS

Once timesheets are approved by managers and time data is entered in SAP by time entry administrators, managers are responsible for reviewing the SAP data for accuracy by using the 'Time Data Entry' report.

For ten out of 30 (33%) time entry samples, although the timesheet was appropriately approved prior to entry into SAP, the Time Data Entry report was not signed by a manager or supervisor as evidence of review after SAP entry. Responses from business units surveyed also indicated that some time entry staff reviewed their own entries and were not aware of the need for managers or supervisors to review the Time Data Entry report.

Due to the lack of an automated time entry process in the CATS system, it is important for managers and supervisors to review the time entered in SAP to ensure accuracy of attendance codes and hours entered for their staff. This review process helps to detect entry errors and mitigate the risk of payroll fraud through unauthorized time entries. It also allows for a more seamless payroll process as corrections can be made before entries are submitted for final payroll processing.

Time reporting training for managers

There is currently no formalized training offered to managers with respect to which reports to run in SAP to review time entry data. While there are time entry reference materials available on the SAP Business Support site through the Payroll site on Currents, some of the training materials are out of date and are primarily intended for staff performing time entry rather than a manager's review.

The SAP Manager's Desktop application is a software tool that enables managers to run reports to review staff time reporting data and vacation quotas. There is also a Fiori version of the Manager's Desktop application recently implemented that provides another method to access similar data. However as there has not been a formal training program rolled out, there may be a lack of awareness of this system functionality. Additionally, there is an opportunity to enhance onboarding training for new managers by including time entry review processes.

Recommendations:

E.2.1 The Associate Director, Accounting Operations should issue a communication to business unit managers and supervisors to reinforce the importance of the responsibility to review time entry data in SAP for their department. This communication should be completed by September 30, 2025.

E.2.2 The Manager, Payroll should work with the Technology Services Learning team to ensure that up to date reference materials and guidance documents on using the Time Data Entry report is made accessible and communicated to managers and supervisors. This should be completed by June 30, 2026.

E.2.3 The Manager, Payroll should work with the Technology Services Learning team to include time entry review as part of onboarding training for new managers. This should be completed by June 30, 2026.

E.2.4 The Manager, Payroll should work with the Technology Services Learning team to enhance awareness of the system functionality available to review time reporting data and provide training for managers where needed. This should be completed by June 30, 2026.

Management Response:

Please check one:

- ☒ Agree with the findings
☐ Disagree with the findings

Please check one:

- ☒ Agree with the recommendations
☐ Disagree with the recommendations

Management Action Plan:

E.2.1 – Management will communicate as per E1.1.

E.2.2. – Management will work with LMS to develop the updated materials

E.2.3 – Management will work with HR to incorporate training materials in HRIS system

E.2.4 – This is a duplicate and already covered above

E.3 Enhance training for time entry staff for CATS

Time entry training for staff is provided by the Technology Services Learning Support team with input from the Payroll Services team. Time entry staff are required to complete two SAP courses (Time Entry Introduction and Time Entry Advanced) before performing time entry duties. A Time Entry Refresher course was a previously mandatory course to be completed every two years, however this requirement has changed in recent years to be non-mandatory. Due to the risk of inaccuracy of time entries identified in E.1 and data entry errors associated with a manual based time entry process, there is an opportunity to enhance training by offering refresher training for time entry staff to ensure accuracy of time entered.

Time entry liaisons for departments

Due to the diverse types of operations at the City and the decentralization of time entry, each department has different time entry procedures in place that have been adapted to suit their unique operations and work schedules. As there are almost four hundred staff performing time entry duties across the City, it may be beneficial to work with departmental representatives that can act as a liaison between business units and the central Payroll department in order to share best practices for time reporting and ensure compliance with the Time Entry policy.

Recommendations:

E.3.1 The Manager, Payroll should work with the Technology Services Learning team to enhance training for time entry staff and consider reinstating the Time Entry Refresher course as a mandatory course to be completed on a regular periodic basis. Consideration should be given to tailoring training where applicable for departments based on operational needs. This should be in place by December 31, 2025.

E.3.2 The Manager, Payroll should work with business unit department liaisons to reinforce time entry requirements and best practices for time reporting. This should be completed by June 30, 2026.

Management Response:

Please check one:

- ☒ Agree with the findings
☐ Disagree with the findings

Please check one:

- ☒ Agree with the recommendations
☐ Disagree with the recommendations

Management Action Plan:

E.3.1 – Management will reinstate mandatory refresher training

E.3.2 – Management will reinforce this message through E.1.1. communication

E.4 Establish periodic review of SAP users with payroll access

SAP users with payroll administration access have the ability to modify, add, and delete payroll information in SAP. Out of 30 SAP users reviewed with payroll administration access, there were four users (three VPL staff and one VPD staff) identified that did not require payroll access to perform their job duties. All four staff were part of the Human Resources team within their respective organizations. Upon notification from Internal Audit to appropriate management, their access was promptly removed following review by respective Payroll departments in collaboration with the SAP Business Support team.

Due to the sensitive nature of payroll data and potential financial implications in the event of payroll fraud, access to modify payroll data should be limited to staff with payroll duties and reviewed on a regular basis.

Recommendations:

E.4.1 The Manager, Payroll should ensure that a review of SAP users with payroll administration access is performed regularly, or on a minimum annual basis and inappropriate access removed. This should be in place by September 30, 2025.

E.4.2 The Manager, Payroll should work with the SAP Business Support team to ensure that any SAP user requests for payroll administration access requires approval from the respective payroll lead for VPL, VPD, VFRS. This should be in place by September 30, 2025.

Management Response:

Please check one:

☒ Agree with the findings

☐ Disagree with the findings

Please check one:

☒ Agree with the recommendations

☐ Disagree with the recommendations

Management Action Plan:

E.4.1 – Management will continue to review roles as per current practice

E.4.2 – Management will continue to follow the current approval process

E.5 Ensure timeliness of Employee Self-Service approvals

As the Employee Self-Service (ESS) application requires all employee time entries to be approved in the system by the respective manager, entries that are awaiting manager approval remain in the system workflow until approved for payroll processing. This can occur if a manager does not approve entries on time before pay period cut off, for instance when a manager is away on vacation.

ESS time entries not approved at year end

During the 2023 year end period, there were over 200 ESS time entries identified by Payroll that had not been approved by a departmental manager before the year end pay period cut off. These entries were batch approved by Payroll to ensure timely payment and for the payroll expense to be recorded in the appropriate fiscal year. However, as Payroll does not have insight into the actual hours worked

by these employees, there is a risk that inaccurate time entries are approved at year end for payroll processing.

Recommendations:

E.5.1 The Associate Director, Accounting Operations should communicate a reminder to business unit managers to ensure ESS time entries are approved prior to year end and proper delegation of approval is arranged if required. This should be completed by December 31, 2025.

E.5.2 The Manager, Payroll should work with the Technology Services Learning team to implement ESS training as a mandatory requirement for approving managers. This should be completed by December 31, 2026.

Management Response:

Please check one:

☒ Agree with the findings

☐ Disagree with the findings

Please check one:

☒ Agree with the recommendations

☐ Disagree with the recommendations

Management Action Plan:

E.5.1 – Management will continue to reinforce the communication at year-end

E.5.2 – Management will explore automated workflows in SAP

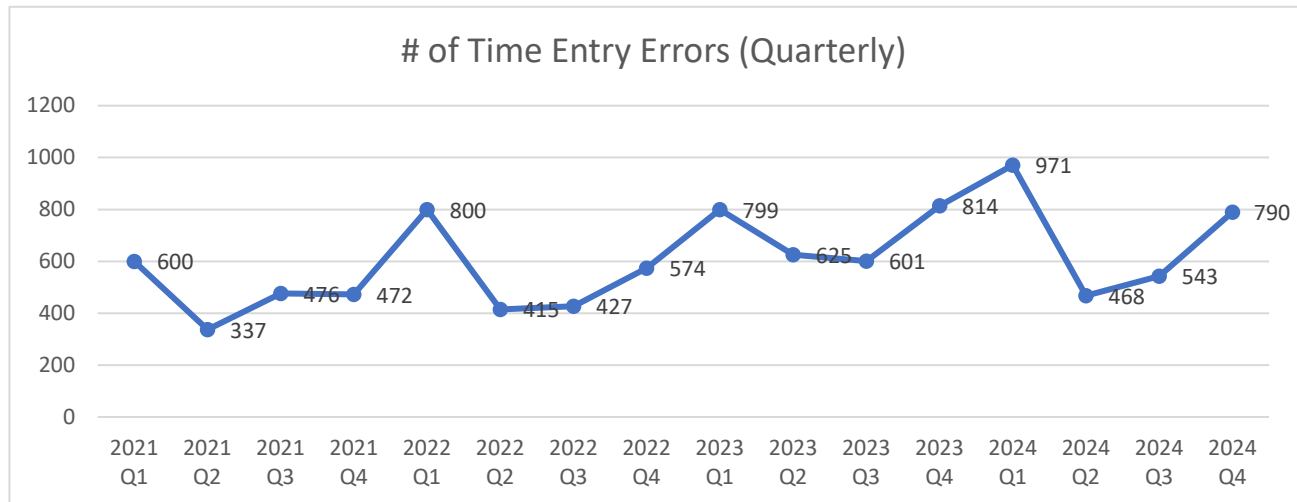
E.6 Ensure consistent tracking of payroll performance metrics

The central Payroll department tracks the number of time entry errors as a key performance metric. The metric is defined as errors relating to time entry requiring correction by the Payroll department and is reflective of the accuracy and quality of data inputted into SAP by departments rather than errors by the Payroll department.

Quarterly data obtained since 2021 showed a consistently high number of errors in Q1 of each year following the year end period. Reasons cited for this trend include overtaking of Wellness Day and vacation quotas by staff which need to be manually corrected by Payroll and late entries occurring after pay period cut off. This results in inefficiencies in payroll processing and an increased workload for Payroll staff.

Figure 2 below indicates the number of payroll errors per quarter from 2021 to 2024.

Figure 2: Payroll Errors



Recommendations:

E.6.1 The Associate Director, Accounting Operations with support from the Manager, Payroll should continue to track time entry and payroll performance metrics trends and share the performance metrics data with business unit senior management with the aim to reduce the number of time entry errors. This should be completed by September 30, 2025.

Management Response:

Please check one:

- ☒ Agree with the findings
☐ Disagree with the findings

Please check one:

- ☒ Agree with the recommendations
☐ Disagree with the recommendations

Management Action Plan:

E.6.1 – Management will continue to track and review performance metrics

E.7 Clarify retention period for timesheet records and update Time Entry Policy

Time entry records such as approved timesheets are important to retain in order to comply with labour laws. Additionally, time entry records are needed as supporting evidence in the event of pay related disputes or grievances.

Review Payroll Time Entry Policy retention period

The City's Payroll Time Entry Policy (AF-011-01), last updated in June 2018, states that time entry records must display appropriate approvals and should be retained for a minimum three years. However, the current requirement from Canada Revenue Agency (CRA) for the retention of payroll records and supporting documentation is six years from the end of the last tax year that the records relate to. In addition, the City's VanRIMS retention period for time entry records is three years stored on-site and four years off-site, for a total retention period of seven years.³

³ VanRIMS classification 05-3200-20 retention schedule for time entry records: CY3.4.D

Reinforce VanRIMS retention requirement and minimize external storage costs for time entry documentation

We found that most departments have a practice of retaining physical paper timesheets on-site for one to two years, which are then moved to off-site storage for a total retention period of seven years. While this total retention period is compliant with CRA requirements, it is not in compliance with the City's VanRIMS schedule due to the requirement to store time entry records on-site for three years. Digital format timesheets are stored and retained in VanDocs or a City network drive. Physical paper records should be transferred to a digital format such as a scanned PDF file where practical in order to minimize costs for external storage.

As the Access to Information and Privacy Office (ATIP) oversees records management at the City, ATIP should be consulted before any updates to the payroll and time entry document retention period are finalized.

Recommendations:

E.7.1 The Associate Director, Accounting Operations should consult with the ATIP Records Management team and update the retention period for time entry records in the Payroll Time Entry policy in accordance with regulatory requirements. This should be completed by December 31, 2025.

E.7.2 The Associate Director, Accounting Operations should communicate the retention period for time entry records and remind business units to retain timesheet records in a centrally accessible City approved application (such as VanDocs) and in a preferably digital or electronic format where feasible. This should be completed by September 30, 2025.

Management Response:

Please check one:

- ☒ Agree with the findings
☐ Disagree with the findings

Please check one:

- ☒ Agree with the recommendations
☐ Disagree with the recommendations

Management Action Plan:

E.7.1 – Management will determine the appropriate retention period and update, if required

E.7.2 – Management will address this issue as part of communication under E.1.1

DISTRIBUTION

To:	City Leadership Team Colin Knight - GM, Finance and Supply Chain Management Michael Walia - Associate Director, Accounting Operations Tadhg Healy – Chief Technology Officer Laura Kramer - Manager, Payroll Balwinder Rai - Director, Human Resources, Vancouver Public Library Inspector Jim Kenney - Human Resources Section, Support Services, Vancouver Police Department Yolanda Hsu - Payroll Supervisor, Vancouver Police Department Anastasia Turner - Assistant Chief, Strategy and Policy, Vancouver Fire & Rescue Services Miki Shoji - Director, Enterprise Applications & Integration Services Nick Crampton - Director, Digital Services & Customer Experience Cobi Falconer - Director, Access to Information & Privacy
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