Cost and risks due to payroll errors: Results of the 2022 HR Processing Risk and Cost Survey

December 2022
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I. Executive summary

This report estimates the direct and indirect costs associated with payroll errors. EY targeted companies with 250 to 10,000 employees and collected responses from 508 individuals who:

► work at companies headquartered in the United States, and
► make or share in the responsibility of the day-to-day communications and decisions for the company that relate to payroll.

Specifically, EY collected data on the frequency and cost associated with errors under each of the following payroll/human resources categories below:

► Time/attendance and expense
► Vacation/paid time off/sick time requests
► Direct deposit
► Benefits
► W-4 and tax allocation changes
► Scheduled earnings and deductions

The analysis shows that, on average, a company has an 80.15% payroll accuracy rate. In the previous fiscal year, each error cost companies, on average, $291 to remedy directly and indirectly.

Table 1 below summarizes the total error frequency and cost for these categories in the past fiscal year. Time/attendance and expense errors are most common, occurring on average more than once per employee per year. Next was vacation/paid time off/sick time request errors (721 errors per 1,000 employees) and benefits errors (503 error per 1,000 employees).

Table 1. Payroll error frequency and cost per 1,000 employees by category, most recent fiscal year

<table>
<thead>
<tr>
<th>Payroll error category</th>
<th>Total frequency per 1,000 employees</th>
<th>Total cost per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time/attendance and expense</td>
<td>1,139</td>
<td>$248,735</td>
</tr>
<tr>
<td>Vacation/Paid time off/sick time requests</td>
<td>721</td>
<td>$219,289</td>
</tr>
<tr>
<td>Benefits</td>
<td>503</td>
<td>$139,230</td>
</tr>
<tr>
<td>Schedule earnings and deductions</td>
<td>410</td>
<td>$135,294</td>
</tr>
<tr>
<td>W-4 and tax allocation changes</td>
<td>229</td>
<td>$134,975</td>
</tr>
<tr>
<td>Direct deposit</td>
<td>159</td>
<td>$44,608</td>
</tr>
</tbody>
</table>
Figure 1 below displays the estimated total direct and indirect labor cost per 1,000 employees by specific types of payroll errors in the most recent fiscal year.

**Figure 1. Estimated total direct and indirect labor cost per 1,000 employees, by payroll error type**

<table>
<thead>
<tr>
<th>Time/attendance and expense</th>
<th>Direct cost per 1,000 employees</th>
<th>Labor Cost per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing time punches</td>
<td>$47,263</td>
<td>$28,906</td>
</tr>
<tr>
<td>Incorrect time punches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect earning/rate for time worked (shift time,...)</td>
<td>$8,309</td>
<td></td>
</tr>
<tr>
<td>Incorrect allocation to correct department/chargecode</td>
<td>$12,873</td>
<td></td>
</tr>
<tr>
<td>Incorrect allocation of employer-controlled earning, and expenses</td>
<td>$31,330</td>
<td></td>
</tr>
<tr>
<td>Employee not in system in a timely manner</td>
<td>$29,509</td>
<td></td>
</tr>
<tr>
<td>Shift availability not updated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing expense/expenses not input</td>
<td>$10,827</td>
<td></td>
</tr>
<tr>
<td>Incorrect expense amount</td>
<td>$45,562</td>
<td>$16,157</td>
</tr>
<tr>
<td>Expense not approved in timely manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacation/Paid time off/sick time requests</td>
<td>Direct deposit setup input error</td>
<td>$35,262</td>
</tr>
<tr>
<td>Incorrect earning for vacation/PTO time</td>
<td>$30,200</td>
<td></td>
</tr>
<tr>
<td>Non-cancellation of vacation/PTO time when requested</td>
<td>$14,169</td>
<td></td>
</tr>
<tr>
<td>Vacation/PTO time not entered</td>
<td>$40,661</td>
<td></td>
</tr>
<tr>
<td>Vacation/PTO time not approved in timely manner</td>
<td>$9,554</td>
<td></td>
</tr>
<tr>
<td>Vacation/PTO requested that is not available/accrued</td>
<td>$33,660</td>
<td></td>
</tr>
<tr>
<td>Incorrect earnings for sick time</td>
<td>$8,797</td>
<td>$70,335</td>
</tr>
<tr>
<td>Sick time not entered</td>
<td>$3,385</td>
<td></td>
</tr>
<tr>
<td>Sick time not approved in timely manner</td>
<td>$8,529</td>
<td></td>
</tr>
<tr>
<td>Sick time requested that is not available/accrued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct deposit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct deposit account/routing information not updated</td>
<td>$9,347</td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health insurance enrollment setup input error</td>
<td>$29,001</td>
<td></td>
</tr>
<tr>
<td>Health insurance qualifying event change error (not...</td>
<td>$18,164</td>
<td></td>
</tr>
<tr>
<td>Supplemental insurance enrollment setup input error</td>
<td>$12,223</td>
<td></td>
</tr>
<tr>
<td>Supplemental insurance qualifying event change error</td>
<td>$8,992</td>
<td></td>
</tr>
<tr>
<td>Retirement plan setup input error</td>
<td>$21,797</td>
<td></td>
</tr>
<tr>
<td>Retirement plan qualifying event change error (not...</td>
<td>$6,799</td>
<td></td>
</tr>
<tr>
<td>Student deferred income plan setup input error</td>
<td>$7,047</td>
<td></td>
</tr>
<tr>
<td>Health savings plan setup input error</td>
<td>$30,385</td>
<td></td>
</tr>
<tr>
<td>Health savings plan qualifying event change error (not...</td>
<td>$4,822</td>
<td></td>
</tr>
<tr>
<td>W-4 and tax allocation changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W-4 setup error</td>
<td>$43,456</td>
<td></td>
</tr>
<tr>
<td>Residential address change error</td>
<td>$18,405</td>
<td></td>
</tr>
<tr>
<td>Visa status update error (not made or made incorrectly)</td>
<td>$23,527</td>
<td></td>
</tr>
<tr>
<td>Social Security/Medicare error (removed or not...</td>
<td>$44,382</td>
<td></td>
</tr>
<tr>
<td>Scheduled earnings and deductions</td>
<td>Direct cost per 1,000 employees</td>
<td>$27,647</td>
</tr>
<tr>
<td>Bonus or commission error (not made or done...</td>
<td>$40,878</td>
<td></td>
</tr>
<tr>
<td>Lunch/cafeteria plan error (not made or done...</td>
<td>$28,437</td>
<td></td>
</tr>
<tr>
<td>Cell phone plan error (not made or done incorrectly)</td>
<td>$25,193</td>
<td></td>
</tr>
<tr>
<td>Uniforms charge error (not made or done incorrectly)</td>
<td>$13,137</td>
<td></td>
</tr>
<tr>
<td>Charitable giving error (not made or done incorrectly)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1_Table. Estimated total direct and indirect labor cost and total time per 1,000 employees, by payroll error type

<table>
<thead>
<tr>
<th>Time/attendance and expense</th>
<th>Direct cost per 1,000 employees</th>
<th>Labor cost per 1,000 employees</th>
<th>Total time in minutes per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing/incorrect time punches</td>
<td>$71,705</td>
<td>$6,962</td>
<td>26,438</td>
</tr>
<tr>
<td>Incorrect earning/rate for time worked (shift time, change in base pay)</td>
<td>$8,026</td>
<td>$284</td>
<td>1,077</td>
</tr>
<tr>
<td>Incorrect allocation to correct department/chargecode</td>
<td>$12,531</td>
<td>$342</td>
<td>1,298</td>
</tr>
<tr>
<td>Incorrect allocation of employer-controlled earning (e.g., jury duty, bereavement)</td>
<td>$30,898</td>
<td>$432</td>
<td>1,641</td>
</tr>
<tr>
<td>Employee not in system in a timely manner</td>
<td>$28,966</td>
<td>$544</td>
<td>2,064</td>
</tr>
<tr>
<td>Shift availability not updated</td>
<td>$17,325</td>
<td>$675</td>
<td>2,561</td>
</tr>
<tr>
<td>Missing expense/expenses not input</td>
<td>$42,046</td>
<td>$3,517</td>
<td>15,446</td>
</tr>
<tr>
<td>Incorrect expense amount</td>
<td>$10,609</td>
<td>$218</td>
<td>956</td>
</tr>
<tr>
<td>Expense not approved in timely manner</td>
<td>$15,641</td>
<td>$516</td>
<td>2,266</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vacation/Paid time off/sick time requests</th>
<th>Direct cost per 1,000 employees</th>
<th>Labor cost per 1,000 employees</th>
<th>Total time in minutes per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect earning for vacation/PTO time</td>
<td>$29,458</td>
<td>$741</td>
<td>3,684</td>
</tr>
<tr>
<td>Non-cancellation of vacation/PTO time when requested</td>
<td>$13,683</td>
<td>$485</td>
<td>2,922</td>
</tr>
<tr>
<td>Vacation/PTO time not entered</td>
<td>$40,128</td>
<td>$534</td>
<td>2,652</td>
</tr>
<tr>
<td>Vacation/PTO time not approved in timely manner</td>
<td>$9,402</td>
<td>$151</td>
<td>752</td>
</tr>
<tr>
<td>Vacation/PTO requested that is not available/accrued</td>
<td>$32,132</td>
<td>$1,528</td>
<td>7,596</td>
</tr>
<tr>
<td>Incorrect earnings for sick time</td>
<td>$8,647</td>
<td>$150</td>
<td>746</td>
</tr>
<tr>
<td>Sick time not entered</td>
<td>$68,697</td>
<td>$1,638</td>
<td>8,141</td>
</tr>
<tr>
<td>Sick time not approved in timely manner</td>
<td>$3,261</td>
<td>$124</td>
<td>616</td>
</tr>
<tr>
<td>Sick time requested that is not available/accrued</td>
<td>$8,292</td>
<td>$237</td>
<td>1,176</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct deposit</th>
<th>Direct cost per 1,000 employees</th>
<th>Labor cost per 1,000 employees</th>
<th>Total time in minutes per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct deposit setup input error</td>
<td>$34,887</td>
<td>$374</td>
<td>2,145</td>
</tr>
<tr>
<td>Direct deposit account/routing information not updated</td>
<td>$8,863</td>
<td>$483</td>
<td>2,770</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Direct cost per 1,000 employees</th>
<th>Labor cost per 1,000 employees</th>
<th>Total time in minutes per 1,000 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health insurance enrollment setup input error</td>
<td>$28,050</td>
<td>$950</td>
<td>3,255</td>
</tr>
<tr>
<td>Health insurance qualifying event change error (not entered or incorrect)</td>
<td>$17,773</td>
<td>$391</td>
<td>1,339</td>
</tr>
<tr>
<td>Supplemental insurance enrollment setup input error</td>
<td>$11,270</td>
<td>$953</td>
<td>3,265</td>
</tr>
<tr>
<td>Supplemental insurance qualifying event change error (not entered or incorrect)</td>
<td>$8,706</td>
<td>$287</td>
<td>982</td>
</tr>
<tr>
<td>Retirement plan setup input error</td>
<td>$21,484</td>
<td>$314</td>
<td>1,074</td>
</tr>
</tbody>
</table>
Retirement plan qualifying event change error (not entered or incorrect) $6,726 $72 248
Student deferred income plan setup input error $6,892 $155 530
Health savings plan setup input error $28,102 $2,283 7,817
Health savings plan qualifying event change error (not entered or incorrect) $4,768 $55 188

W-4 and tax allocation changes
W-4 setup error $43,117 $339 1,740
Residential address change error $18,090 $315 2,103
Tax deduction change error (not made or done incorrectly) $23,527 $943 4,842
Visa status update error (not made or made incorrectly) $42,877 $1,506 7,734
Social Security/Medicare error (removed or not removed from pay) $4,210 $52 267

Scheduled earnings and deductions
Bonus or commission error (not made or done incorrectly) $27,237 $410 2,108
Lunch/cafeteria plan error (not made or done incorrectly) $40,591 $287 1,473
Cell phone plan error (not made or done incorrectly) $27,369 $1,068 5,488
Uniforms charge error (not made or done incorrectly) $22,989 $2,204 11,324
Charitable giving error (not made or done incorrectly) $12,795 $342 1,758

The main drivers of frequent time/attendance and expense errors include missing/incorrect time punches, missing expense/failing to input expenses, and failing to update shift availability. These errors also represent three of the five most frequent errors overall. The remaining two errors in the top five are related to vacation/PTO time.

The five most costly errors per incident come from a wider range of categories. Input errors when setting up health savings plans can cost an average of $6,800 per incident, more than three times higher than the second most costly error, input errors when setting up direct deposit, which average $1,500 per incident. While the most frequent errors are related to daily activities, the costliest errors often happen during employee onboarding and set-up.

When combining labor and direct costs, analysis shows missing/incorrect time punches also has the highest combined cost per employee in the past fiscal year, averaging $79 per employee. It is followed by sick time not entered, which averages $70 per employee. The costs of these two errors are significantly higher than the third place – missing expense/failing to input expenses ($46 per employee). Table 2 below summarizes the top five errors by frequency, by cost per error, and by total cost.
Table 2. Top five payroll errors by frequency per employee, by direct cost per error, and by total cost per employee, in the most recent fiscal year

<table>
<thead>
<tr>
<th>Rank</th>
<th>By frequency per employee</th>
<th>Frequency per employee</th>
<th>By direct cost per error</th>
<th>Direct cost per error</th>
<th>By total combined (labor + direct) cost per employee</th>
<th>Total combined cost per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Missing/incorrect time punches</td>
<td>0.40</td>
<td>Sick time not entered</td>
<td>$705</td>
<td>Missing/incorrect time punches</td>
<td>$79</td>
</tr>
<tr>
<td>2</td>
<td>Missing expense/expense not input</td>
<td>0.23</td>
<td>Employee not in system in a timely manner</td>
<td>$635</td>
<td>Sick time not entered</td>
<td>$70</td>
</tr>
<tr>
<td>3</td>
<td>Incorrect earning for vacation/PTO time</td>
<td>0.15</td>
<td>Visa status update error (not made or made incorrectly)</td>
<td>$615</td>
<td>Missing expense/expense not input</td>
<td>$46</td>
</tr>
<tr>
<td>4</td>
<td>Shift availability not updated</td>
<td>0.15</td>
<td>W-4 setup error</td>
<td>$539</td>
<td>Visa status update error (not made or made incorrectly)</td>
<td>$44</td>
</tr>
<tr>
<td>5</td>
<td>Vacation/PTO requested that is not available/accrued</td>
<td>0.12</td>
<td>Lunch/cafeteria plan error (not made or done incorrectly)</td>
<td>$499</td>
<td>W-4 setup error</td>
<td>$43</td>
</tr>
</tbody>
</table>

II. Frequency of payroll errors

The average payroll accuracy rate of surveyed companies in the most recent fiscal year is 80%. For the average pay period, payroll/HR receives thirty questions from employees.

To account for the wide range of company sizes among survey respondents, this report normalizes payroll error frequency by calculating the number of errors per 1,000 employees. Figure 2 shows the five most frequent errors per 1,000 employees. Data shows that high frequency activities like submitting time and expenses are also associated with the most errors, either due to missing or incorrect submission. Errors also frequently happen when there are changes to the normal working schedule, such as vacation/PTO time and updating shift availability.

The average missing/incorrect time punch occurred about four times for every ten employees in the past fiscal year, followed by missing expense/failing to input expenses (229 per 1,000 employees). Incorrect earning for vacation/PTO time and failing to update shift availability are also frequent errors, both occurring roughly 150 times per 1,000 employees in the past fiscal year.
Figure 2. Top five errors by frequency per 1,000 employees

III. Cost of payroll errors

EY surveyed companies on the direct cost and time associated with correcting each of the error types. Direct cost is defined as the amount directly lost due to overpayment or compensation directly paid out to settle the issue. Time associated with errors are then calculated by mapping activities to their associated estimated hourly human resources labor cost established by previous study.1 The combined direct and indirect labor cost is considered the total combined cost associated with errors.

The average cost per incident, when weighted by error frequency, is $281 in direct costs and $10 in indirect labor costs for a total of $291 in total combined cost. When looking at each type of error, failing to enter sick time has the highest direct cost per error, $705. The other errors that incur high direct cost are related to employee onboarding, including the employee not being in the system in a timely manner ($635), visa status update errors ($615), W-4 setup errors ($539), and errors related to scheduled deductions for lunch/cafeteria plans ($499).

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When multiplying direct cost per error with frequency per 1,000 employees, analysis shows that missing or entering incorrect time punches has the highest direct cost per 1,000 employees, $71,700. The five errors with the highest total direct cost per 1,000 employees also include errors with high direct costs per incident cost such as sick time not entered, W-4 setup errors, and visa status update errors.

Due to its high frequency, missing/incorrect time punches also has the highest indirect labor cost per 1,000 employees in the most recent fiscal year, averaging about $7,000 per 1,000 employees.
Figure 5. Top five errors by indirect labor cost per 1,000 employees in the most recent fiscal year

<table>
<thead>
<tr>
<th>Error</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing/incorrect time punches</td>
<td>$7,000</td>
</tr>
<tr>
<td>Missing expense/expenses not input</td>
<td>$3,500</td>
</tr>
<tr>
<td>Health savings plan setup input error</td>
<td>$2,300</td>
</tr>
<tr>
<td>Uniforms charge error (not made or done incorrectly)</td>
<td>$2,200</td>
</tr>
<tr>
<td>Sick time not entered</td>
<td>$1,600</td>
</tr>
</tbody>
</table>

Combining direct and indirect costs, missing/incorrect time punches costs companies about $78,700 per 1,000 employees per year, followed by sick time not entered ($70,300 per 1,000 employees) and missing expense/failing to input expenses ($45,600 per 1,000 employees).
When evaluating errors based on their total correction time in the past fiscal year, missing/incorrect time punches are the most time-consuming to correct, partially due to the large quantity of these errors. On average in the past fiscal year, companies spent 26 minutes per employee to fill in missing time punches or correct inaccurate ones. Companies spent more than ten minutes per employee on missing expenses (15 minutes per employee) and uniforms charge errors (11 minutes per employee).
IV. Litigation and regulatory issues

Approximately one in six companies surveyed (14%) indicated they had litigation issues related to payroll errors in the past year. These companies received 32 legal complaints on average in the past year, for an average total of $3,200 in direct costs and 29 hours of internal time to settle. One respondent indicated total direct costs associated with settling litigation issues as $50,000.

These litigation issues are not only costly to settle, but could also lead to other organizational consequences, such as employee furlough/terminations and increased employee turnover. Figure 8 below shows that among those that have experienced pay-related litigation issues, nearly half of organizations (44%) had to cut employee headcount following these issues. Every company with litigation issues related to payroll errors indicated being affected by at least one of the consequences listed in Figure 8.

Figure 8. Effects of litigation issues related to payroll errors for companies having experienced these issues

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee furlough/terminations</td>
<td>44%</td>
</tr>
<tr>
<td>Increased employee turnover</td>
<td>35%</td>
</tr>
<tr>
<td>Employee morale decline</td>
<td>30%</td>
</tr>
<tr>
<td>Operational cost increase</td>
<td>28%</td>
</tr>
<tr>
<td>Reputational/brand decline</td>
<td>25%</td>
</tr>
<tr>
<td>Payout of settlement/damages</td>
<td>11%</td>
</tr>
<tr>
<td>No effect at all</td>
<td>0%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0%</td>
</tr>
</tbody>
</table>

In addition to litigation issues, 14% of companies also faced regulatory or compliance issues last year. 12 percent were fined by a regulatory body (such as the IRS or a state authority) for a misclassification or error. These organizations were fined an average of 30 times, with a cost of $5,200 on average last year in total. The largest total of fines reported was $100,000. In addition to fines, these regulatory/compliance issues incurred on average an additional $4,600 in legal costs. The largest additional legal cost reported is $96,000.

Regulatory or compliance issues are not only more costly to settle, but also more time-consuming. Companies spent an average of 91 hours settling a regulatory or compliance issue. The highest reported time was 2,300 hours. Regulatory or compliance issues also have additional non-financial effects on the organization.
Figure 9 shows that a majority (56%) of respondents had to terminate employees as a result of regulatory or compliance issues.

**Figure 9. Effects of regulatory or compliance issues related to payroll errors**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee furlough/terminations</td>
<td>56%</td>
</tr>
<tr>
<td>Employee morale decline</td>
<td>41%</td>
</tr>
<tr>
<td>Increased employee turnover</td>
<td>38%</td>
</tr>
<tr>
<td>Reputational/brand decline</td>
<td>36%</td>
</tr>
<tr>
<td>Operational cost increase</td>
<td>16%</td>
</tr>
<tr>
<td>Payout of fines</td>
<td>15%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0%</td>
</tr>
<tr>
<td>No effect at all</td>
<td>0%</td>
</tr>
</tbody>
</table>
V. Methodology

All survey respondents work at companies headquartered in the United States and make or share in the responsibilities of the day-to-day communications and decisions for the company that relate to payroll. Respondents also all serve in supervisor/manager roles or higher positions in their companies, and 84% work in the Human Resources department.

These companies are constituted of a diverse mix of industries, including retail (17%), healthcare systems and services (12%), financial services (11%), and business, legal, and professional services (9%). The headquarters of these companies are located in 45 US states.

EY validated the responses and removed four outlier responses due to significantly high error rate relative to their organization sizes. To control for the effect of organization size on error occurrences, EY normalized payroll error frequency to number of errors per 1,000 employees. Total costs are also presented as cost per 1,000 employees.

To capture the direct and indirect cost associated with correcting payroll errors, this analysis combines the direct cost responses with the indirect labor cost imputed from responses of time spent. Each error is mapped to an HR activity, and the indirect labor cost is calculated as time spent on the correcting the error multiplied by the hourly labor cost for the activity estimated in a previous study\(^2\). Appendix II displays the mapping of each error to the associated HR activity and the estimated hourly labor cost.

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Appendix I. Survey questionnaire
Paycom Payroll Processing and Risk Survey

Demographics
<potentially placed at end>

S1. Are you the person in your business who makes or shares in the responsibility of the day to day communications and decisions for the company that relate to payroll?
Yes/No [TERMINATE]

D1a. What best describes your role at your company?
1. Individual contributor
2. Supervisor/Manager
3. Director
4. Vice President
5. President/C-Suite
6. Business Owner
7. Other, please specify

D1b. What department do you work in at your company?
1. Human Resources
2. Operations
3. Administration
4. Sales/Marketing
5. IT
6. Legal
7. Finance/Accounting
8. Supply chain management
9. Customer Service
10. Business Intelligence
11. Other, please specify

D2. How many employees does your organization have? ________ [ANSWER MUST BE >0]
D3. Which of the following best describes your organization's industry:
1. Advanced electronics
2. Aerospace and defense
3. Automotive and assembly
4. Business, legal, and professional services
5. Chemicals
6. Consumer packaged goods
7. Electric power and natural gas
8. Financial services
9. Healthcare systems and services
10. High tech
11. Infrastructure
12. Marketing or Market Research
13. Media and entertainment
14. Metals and mining
15. Oil and gas
16. Paper and forest products
17. Pharmaceuticals and medical products
18. Private equity and principal investors
19. Public sector
20. Retail
21. Semiconductors
22. Social sector
23. Telecommunications
24. Travel, transport, and logistics
25. Other, please specify

D4. In what state is your organization headquartered?
D5. Do you have a current payroll provider?
Yes/No

- Who is your current payroll provider?
  1. ADP
  2. Ceridian
  3. Cornerstone
  4. Gusto
  5. Intuit QuickBooks
  6. OnDemand
  7. Oracle
  8. Paychex
  9. Paycom
  10. Paycor
  11. Paylocity
  12. Rippling
  13. SAP
  14. UKG
  15. Workday
  16. Zenefits
  17. Other, please specify

Questionnaire
Q1. How confident are you in the ability of your current payroll processes to catch errors?
<5 pt scale very confident to not confident at all>

Q2. How confident are you each payroll period that employees were paid accurately?
<5 pt scale very confident to not confident at all>

Q3. How confident are you each payroll period that employees were paid timely?
5 pt scale very confident to not confident at all>
Q4. What is your average payroll accuracy rate for the most recent fiscal year?
______% [ANSWER MUST BE 0-100]

Q5. In your average pay period, how many payroll questions do you receive from employees after processing?
______ questions/pay period

Q6. In your average pay period, how many payroll corrections do you make after processing?
______ corrections/pay period

Q7. In your opinion, how well do your employees understand all the earnings and deductions that are listed on their paycheck?
<5pt scale completely understand to not understand at all>

Q8. Please indicate how each of the following activities is completed by/for an employee.
The options are: Employee completes (e.g., self-service technology), Employee completes with assistance/review or approval of another individual (e.g., supervisor, HR), Other individual completing on behalf of employee, Organization does not offer/have:

1. Employee completes (e.g., self-service technology, employee enters time directly into time tracker software)
2. Employee completes with assistance/review or approval of another individual (e.g., supervisor, HR, employee uses timecard to punch time, time is entered into time tracker system from card by other employee),
3. Other individual completing on behalf of employee (e.g., supervisor inputs time on behalf of employee)
4. Organization does not offer/have
   1. **Time/Attendance and Expense**:
      - Time and attendance punches/records
      - Correction of previous time recording
      - Input of expenses
   2. **Vacation/PTO/Sick Time Requests**
      - Request for vacation/PTO
- Request for sick time
- Cancellation of request

3. **Direct Deposit**
   - Input of Account and Bank Routing Information
   - Update of Account/Routing Information

4. **Benefits**
   - Review benefits options for enrollment
   - Enrollment in medical/health insurance plan(s)
   - Changes to medical/health insurance plan(s) based on qualifying events (e.g., marriage, child, etc.)
   - Enrollment in supplemental insurance plan(s)
   - Changes to supplemental insurance plan(s) based on qualifying events (e.g., marriage, child, etc.)
   - Enrollment in retirement plan(s)
   - Changes to percentage deducted for retirement plan
   - Changes to retirement plan based on qualifying events (e.g., marriage, child, etc.)
   - Enrollment in student deferred income plans (e.g., 529 college savings plan)
   - Changes to student deferred income plans based on qualifying events (e.g., marriage, child, etc.)
   - Enrollment in health savings plans (e.g., HSA, FSA)
   - Changes to savings plans based on qualifying events (e.g., marriage, child, etc.)

5. **W-4 and Tax Allocation Changes**
   - Input initial W-4 information
   - Residential address changes
   - Changes in Exemption
   - Change in withholding amount

Q9. Below is a listing of errors/issues related to the activities above. Did your organization have any of these errors in the past fiscal year? (check all that apply)

   o Time/Attendance and Expense:
   o Missing time punches
   o Incorrect time punches
   o Incorrect earning/rate for time worked (shift time, change in base pay)
   o Incorrect allocation to correct department/chargecode
   o Incorrect allocation of employer-controlled earning (e.g., jury duty, bereavement)
   o Employee not in system in a timely manner
   o Shift availability not updated
- Missing expense/expenses not input
- Incorrect expense amount
- Expense not approved in timely manner

- **Vacation/PTO/Sick Time Requests**
  - Incorrect earning for vacation/PTO time
  - Non-cancellation of vacation/PTO time when requested
  - Vacation/PTO time not entered
  - Vacation/PTO time not approved in timely manner
  - Vacation/PTO requested that is not available/accrued
  - Incorrect earnings for sick time
  - Sick time not entered
  - Sick time not approved in timely manner
  - Sick time requested that is not available/accrued

- **Direct Deposit**
  - Direct deposit input incorrectly
  - Direct deposit account/routing information not updated
  - Direct deposit allocation amount errors

- **Benefits**
  - Health insurance enrollment setup input error
  - Health insurance qualifying event change error (not entered or incorrect)
  - Supplemental insurance enrollment setup input error
  - Supplemental insurance qualifying event change error (not entered or incorrect)
  - Retirement plan setup input error
  - Retirement plan qualifying event change error (not entered or incorrect)
  - Student deferred income plan setup input error
  - Student deferred income plan qualifying event change error (not entered or incorrect)
  - Health savings plan setup input error
  - Health savings plan qualifying event change error (not entered or incorrect)

- **W-4 and Tax Allocation Changes**
  - W-4 setup error
  - Residential address change error
  - Tax withholding/exemption change error (not made or done incorrectly)
  - Visa status update error (not made or made incorrectly)
  - Social Security/Medicare error (removed or not removed from pay)

- **Scheduled Earnings and Deductions**
  - Bonus or commission error (not made or done incorrectly)
  - Lunch/cafeteria plan error (not made or done incorrectly)
• Cell phone plan error (not made or done incorrectly)
• Uniforms charge error (not made or done incorrectly)
• Charitable giving error (not made or done incorrectly)

None of the above (Skip to Q12)

Q10. For each specific error/issue you noted, how many errors occurred in your most recent fiscal year? (Please provide a number for each error/issue listed below. If your organization does not track this, please provide your best estimate).

<display only those selected in prior question (Q9)> [ANSWER MUST BE >0]

• Time/Attendance and Expense:
  1. Missing time punches
  2. Incorrect time punches
  3. Incorrect earning/rate for time worked (shift time, change in base pay)
  4. Incorrect allocation to correct department/chargecode
  5. Incorrect allocation of employer-controlled earning (e.g., jury duty, bereavement)
  6. Employee not in system in a timely manner
  7. Shift availability not updated
  8. Missing expense/expenses not input
  9. Incorrect expense amount
  10. Expense not approved in timely manner

• Vacation/PTO/Sick Time Requests
  1. Incorrect earning for vacation/PTO time
  2. Non-cancellation of vacation/PTO time when requested
  3. Vacation/PTO time not entered
  4. Vacation/PTO time not approved in timely manner
  5. Vacation/PTO requested that is not available/accrued
  6. Incorrect earnings for sick time
  7. Sick time not entered
  8. Sick time not approved in timely manner
  9. Sick time requested that is not available/accrued

• Direct Deposit
• Direct deposit setup input error
• Direct deposit account/routing information not updated

• Benefits
  1. Health insurance enrollment setup input error
  2. Health insurance qualifying event change error (not entered or incorrect)
  3. Supplemental insurance enrollment setup input error
4. Supplemental insurance qualifying event change error (not entered or incorrect)
5. Retirement plan setup input error
6. Retirement plan qualifying event change error (not entered or incorrect)
7. Student deferred income plan setup input error
8. Student deferred income plan qualifying event change error (not entered or incorrect)
9. Health savings plan setup input error
10. Health savings plan qualifying event change error (not entered or incorrect)

- **W-4 and Tax Allocation Changes**
  - W-4 setup error
  - Residential address change error
  - Tax deduction change error (not made or done incorrectly)
  - Visa status update error (not made or made incorrectly)
  - Social Security/Medicare error (removed or not removed from pay)

- **Scheduled Earnings and Deductions**
  - Bonus or commission error (not made or done incorrectly)
  - Lunch/cafeteria plan error (not made or done incorrectly)
  - Cell phone plan error (not made or done incorrectly)
  - Uniforms charge error (not made or done incorrectly)
  - Charitable giving error (not made or done incorrectly)

Q11. Was there additional incurred time or cost(s) associated with correcting these issues? If so, estimate the average amount for a single error.

<display only those selected in prior question (Q9)> [ANSWER MUST BE >0]

A. Time/Attendance and Expense:
- Missing time punches
- Incorrect time punches
- Incorrect earning/rate for time worked (shift time, change in base pay)
- Incorrect allocation to correct department/chargecode
- Incorrect allocation of employer-controlled earning (e.g., jury duty, bereavement)
- Employee not in system in a timely manner
- Shift availability not updated
- Missing expense/expenses not input
- Incorrect expense amount
- Expense not approved in timely manner

B. Vacation/PTO/Sick Time Requests
• Incorrect earning for vacation/PTO time
• Non-cancellation of vacation/PTO time when requested
• Vacation/PTO time not entered
• Vacation/PTO time not approved in timely manner
• Vacation/PTO requested that is not available/accrued
• Incorrect earnings for sick time
• Sick time not entered
• Sick time not approved in timely manner
• Sick time requested that is not available/accrued

C. Direct Deposit
• Direct deposit setup input error
• Direct deposit account/routing information not updated

D. Benefits
☐ Health insurance enrollment setup input error
☐ Health insurance qualifying event change error (not entered or incorrect)
☐ Supplemental insurance enrollment setup input error
☐ Supplemental insurance qualifying event change error (not entered or incorrect)
☐ Retirement plan setup input error
☐ Retirement plan qualifying event change error (not entered or incorrect)
☐ Student deferred income plan setup input error
☐ Student deferred income plan qualifying event change error (not entered or incorrect)
☐ Health savings plan setup input error
☐ Health savings plan qualifying event change error (not entered or incorrect)

E. W-4 and Tax Allocation Changes
• W-4 setup error
• Residential address change error
• Tax deduction change error (not made or done incorrectly)
• Visa status update error (not made or made incorrectly)
• Social Security/Medicare error (removed or not removed from pay)

F. Scheduled Earnings and Deductions
  o Bonus or commission error (not made or done incorrectly)
  o Lunch/cafeteria plan error (not made or done incorrectly)
  o Cell phone plan error (not made or done incorrectly)
  o Uniforms charge error (not made or done incorrectly)
  o Charitable giving error (not made or done incorrectly)
Q12. How many Full Time Equivalents do you have dedicated to processing payroll? _____

1. Please indicate the number of Full Time Equivalents you have dedicated to processing payroll at each of these levels:
   - Supervisor
   - Administrator
   - Processor
   - Clerical
   - Other (please specify)

Pop-up definitions:

**Supervisor:** Communicates organizational needs, oversees employees' performance, provide guidance, support, identify development needs, and manage the reciprocal relationship between staff and the organization so that each is successful.

**Administrator:** Responsible for management of employee data, ensuring the accuracy of timesheets, computing wages, etc.

**Processor:** Transfers, organizes, and processes requests for their employees or clients

**Clerical:** Involved in day-to-day routine administrative tasks

Q13. How many people are involved in reviewing your current payroll? _____

   1. Please indicate the number of people involved in reviewing your current payroll at each level.
   2. Supervisor
   3. Administrator
   4. Vice president level or above
   5. Other (please specify)

Q14. How many people are involved in approving your current payroll? _____

   1. Please indicate the number of people involved in approving your current payroll at each level.
   2. Supervisor
   3. Administrator
   4. Vice president level or above
   5. Other (please specify)
Pay Estimation

PEQ1. When you issue paychecks to your employees, do you pay in arrears (pay after the employee has worked)?
Yes (SKIP TO Q15)/No (CONTINUE)
(if no)

PEQ2. To issue paychecks to employees, do you pay estimate (estimate in any capacity any number of hours an employee will be performing in the pay period and issue pay based on that)?
Yes (CONTINUE)/No (SKIP TO Q15)
(If yes)

PEQ3. For your current average pay period, how many employees do you pay estimate for?
Hourly: _____ employees
Salary: _____ employees

PEQ4. For your average pay period, how many instances do you have that require you to correct those estimates in the next pay cycle?
__________ instances

PEQ5. On average, how long does it take to correct a single error in pay estimation?
__________ minutes [ANSWER MUST BE >0]

PEQ6. In the past seven years, has your organization had any litigation related to the pay estimation errors indicated above?
Yes (CONTINUE)/No (SKIP TO PEQ7)
(If yes)

PEQ6A. How many legal complaints did your organization receive in the past seven years? _____ complaint(s) [ANSWER MUST BE >0]

PEQ6B. For this litigation, what was the estimated cost associated with settling the issue(s)? Please include all costs associated with the litigation (e.g., court costs, lawyer fees, settlement or judgement amounts, etc.). $ _____________ (checkbox “Don’t know”)

PEQ6C. What amount of internal time was spent on settling the issue? If your organization does not track this, please estimate to the best of your ability. ________ hours
PEQ7. In the past seven years, has your organization had any regulatory or compliance issues related to the pay estimation errors indicated above?

Yes (CONTINUE)/No (SKIP TO Q15)

(If yes)

PEQ7A. How many times was your organization fined in the last seven years? _____ time(s) [If PEQ7A = 0, skip to PEQ7C]

PEQ7B. What was the total amount of fines for the past seven years? $ __________ (checkbox “Don’t know”)

PEQ7C. Did you incur additional legal costs in addressing these issues that was not included in the fines above?

Yes (CONTINUE)/No (SKIP TO Q15)

PEQ7D. What amount was incurred? If your organization does not track this, please estimate to the best of your ability.

_________ [ANSWER MUST BE >0]

Q15. In the past year, has your organization had any litigation issues related to the errors indicated previously in this survey? [show If PEQ6 = yes] Please include any litigation you have had in the past year, even if included in your previous answers.

Yes (CONTINUE)/No (SKIP TO Q20)

If Yes:

Q16. How many legal complaints did your organization receive in the past year? _____ complaint(s) [ANSWER MUST BE >0]

Q17. For this litigation, what was the estimated cost associated with settling the issue(s). Please include all costs associated with the litigation (e.g., court costs, lawyer fees, settlement or judgement amounts, etc.). $ __________ (checkbox “Don’t know”)

Q18. What amount of internal time was spent on settling the issue? If your organization does not track this, please estimate to the best of your ability.

_________ hours

Q19. What was the effect of this litigation? (check all that apply)

- Increased employee turnover
- Employee furlough/terminations
- Reputational/brand decline
- Employee morale decline
- Operational cost increase
- Payout of settlement/damages
Q20. In the past year, has your organization had any regulatory or compliance issues related to the errors indicated previously? [show if PEQ6 = yes] Please include any issues you have had in the past year, even if included in your previous answers.
Yes/No

Q21. In the past year, has your organization been fined by a regulatory body (such as the IRS or a state authority) for a misclassification/error noted above? Yes (CONTINUE)/No (SKIP TO END)

Q22. How many times was your organization fined in the past year?
______ time(s) [ANSWER MUST BE >0]

Q23. What was the total amount of fines for the past year?
$______________ (checkbox “Don’t know”)

Q24. Did you incur additional legal costs in addressing these issues that was not included in fines above? If so, what was the amount incurred?
$______________ (checkbox “Don’t know”)

Q25. What amount of internal time was spent on settling the issue? If your organization does not track this, please estimate to the best of your ability. ________ hours

Q26. What was the effect of this regulatory finding? (check all that apply)
- Increased employee turnover
- Employee furlough/terminations
- Reputational/brand decline
- Employee morale decline
- Operational cost increase
- Payout of fines
- Other (please specify)
- No effect at all
## Appendix II. Errors and associated HR activity and estimated labor cost per hour

<table>
<thead>
<tr>
<th>Activity</th>
<th>Error</th>
<th>Labor Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time and attendance punches/records</td>
<td>Incorrect time punches</td>
<td>$15.80</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Missing time punches</td>
<td>$15.80</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Incorrect earning/rate for time worked (shift time, change in base pay)</td>
<td>$15.80</td>
</tr>
<tr>
<td>Request for vacation/PTO</td>
<td>Vacation/PTO time not entered</td>
<td>$12.07</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Employee not in system in a timely manner</td>
<td>$15.80</td>
</tr>
<tr>
<td>Update of Account/Routing Information</td>
<td>Direct deposit account/routing information not updated</td>
<td>$10.47</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Incorrect allocation to correct department/chargecode</td>
<td>$15.80</td>
</tr>
<tr>
<td>Request for sick time</td>
<td>Sick time not entered</td>
<td>$12.07</td>
</tr>
<tr>
<td>Input initial W-4 information</td>
<td>Cell phone plan error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Request for vacation/PTO</td>
<td>Vacation/PTO requested that is not available/accrued</td>
<td>$12.07</td>
</tr>
<tr>
<td>Input of Account and Bank Routing Information</td>
<td>Direct deposit setup input error</td>
<td>$10.47</td>
</tr>
<tr>
<td>Input initial W-4 information</td>
<td>Bonus or commission error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Request for sick time</td>
<td>Incorrect earnings for sick time</td>
<td>$12.07</td>
</tr>
<tr>
<td>Changes to medical/health insurance plan(s)</td>
<td>Health insurance qualifying event change error (not entered or incorrect)</td>
<td>$17.52</td>
</tr>
<tr>
<td>(e.g., marriage, child, etc.)</td>
<td>Missing expense/expenses not input</td>
<td>$13.66</td>
</tr>
<tr>
<td>Input of expenses</td>
<td>Vacation/PTO time not approved in timely manner</td>
<td>$12.07</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Shift availability not updated</td>
<td>$15.80</td>
</tr>
<tr>
<td>Time and attendance punches/records</td>
<td>Incorrect allocation of employer-controlled earning (e.g., jury duty, bereavement)</td>
<td>$15.80</td>
</tr>
<tr>
<td>Residential address changes</td>
<td>Residential address change error</td>
<td>$9.00</td>
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<tr>
<td>Changes to supplemental insurance plan(s)</td>
<td>Supplemental insurance qualifying event change error (not entered or incorrect)</td>
<td>$17.52</td>
</tr>
<tr>
<td>(e.g., marriage, child, etc.)</td>
<td>Visa status update error (not made or made incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Input initial W-4 information</td>
<td>Lunch/cafeteria plan error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
<td>--------</td>
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<tr>
<td>Enrollment in supplemental insurance plan(s)</td>
<td>Supplemental insurance enrollment setup input error</td>
<td>$17.52</td>
</tr>
<tr>
<td>Cancellation of request</td>
<td>Non-cancellation of vacation/PTO time when requested</td>
<td>$9.96</td>
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<tr>
<td>Input initial W-4 information</td>
<td>W-4 setup error</td>
<td>$11.68</td>
</tr>
<tr>
<td>Enrollment in retirement plan(s)</td>
<td>Retirement plan setup input error</td>
<td>$17.52</td>
</tr>
<tr>
<td>Input initial W-4 information</td>
<td>Uniforms charge error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Input of expenses</td>
<td>Incorrect expense amount</td>
<td>$13.66</td>
</tr>
<tr>
<td>Request for vacation/PTO</td>
<td>Incorrect earning for vacation/PTO time</td>
<td>$12.07</td>
</tr>
<tr>
<td>Enrollment in medical/health insurance plan(s)</td>
<td>Health insurance enrollment setup input error</td>
<td>$17.52</td>
</tr>
<tr>
<td>Changes to retirement plan based on qualifying events (e.g., marriage, child, etc.)</td>
<td>Retirement plan qualifying event change error (not entered or incorrect)</td>
<td>$17.52</td>
</tr>
<tr>
<td>Input of expenses</td>
<td>Expense not approved in timely manner</td>
<td>$13.66</td>
</tr>
<tr>
<td>Enrollment in health savings plans (e.g., HSA, FSA)</td>
<td>Health savings plan setup input error</td>
<td>$17.52</td>
</tr>
<tr>
<td>Request for sick time</td>
<td>Sick time not approved in timely manner</td>
<td>$12.07</td>
</tr>
<tr>
<td>Input of Account and Bank Routing Information</td>
<td>Direct deposit allocation amount errors</td>
<td>$10.47</td>
</tr>
<tr>
<td>Changes in Exemption</td>
<td>Social Security/Medicare error (removed or not removed from pay)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Request for sick time</td>
<td>Sick time requested that is not available/accrued</td>
<td>$12.07</td>
</tr>
<tr>
<td>Enrollment in student deferred income plans (e.g., 529 college savings plan)</td>
<td>Student deferred income plan setup input error</td>
<td>$17.52</td>
</tr>
<tr>
<td>Input initial W-4 information</td>
<td>Charitable giving error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
<tr>
<td>Changes to savings plans based on qualifying events (e.g., marriage, child, etc.)</td>
<td>Health savings plan qualifying event change error (not entered or incorrect)</td>
<td>$17.52</td>
</tr>
<tr>
<td>Change in withholding amount</td>
<td>Tax withholding/exemption change error (not made or done incorrectly)</td>
<td>$11.68</td>
</tr>
</tbody>
</table>