

## Updating a Weekly Payroll Worksheet<sup>1</sup>

**Problem:** PHM Reliable Catering is a company that provides catering services to both small and large businesses. You have been asked to update the weekly payroll report to reflect changes in personnel, to update certain mandatory deductions, and to add overtime computations. The data for this exercise is provided for you in an Excel file that has already been started. This file has the initial values for creating the spreadsheet, to save you some typing, but you need to add formulas and formatting to complete it.

Perform the following tasks:

1. Download file [Lab 3-2 PHM Reliable Catering Weekly Payroll Report.xlsx](#) using this link or the link on the class web page (under the “Lab Assignments” link in the Assignment 4 row.) Open the downloaded file.
2. Save the workbook using the file name:  
**Lab 3-2 PHM Reliable Catering Weekly Payroll Report Complete.xlsx.**
3. Apply the Depth theme to the worksheet.
4. Delete rows 12 through 14 to remove the statistics below the Totals row, and column B (hiring date information).
5. Set column A width to 31.00 and columns B through K to 11.00.
6. Select row 3 and set text to wrap in this row using the Wrap Text button (Home tab | Alignment group), and then set the row height to automatically fit the contents.
7. Delete the record for the employee Evans, Timothy. Add two blank lines directly above the row for Mi, Emily, and add the information for the two new employees listed in Figure 1: New Employee Data below.

| PHM Reliable Catering New Employee Data |                        |               |              |  |
|---|------------------------|---------------|--------------|--|
| Employee                                | Withholding Allowances | Rate per Hour | Hours Worked |  |
| James, Michael                          | 2                      | \$ 16.50      | 32.5         |  |
| Lindstrom, Ashley                       | 0                      | \$ 18.00      | 48.0         |  |

Figure 1: New Employee Data

8. Replace the name of the current first employee with your name.
9. Copy (or use the fill handle in E6 to copy) the gross pay formula from cell E6 to the rows of the two new employees.
10. Add the Tax Rates information shown in Figure 2: Tax Rate Information into cells A15:B20 in your worksheet.

| Tax                                  | Rate  |
|--------------------------------------|-------|
| Social Security Tax                  | 6.45% |
| Medicare Tax                         | 1.55% |
| Federal Tax under \$689              | 14%   |
| Federal Tax \$689+                   | 24%   |
| State tax (% of federal withholding) | 20%   |

Figure 2: Tax Rate Information

11. Change the font size in cell A1 to 28-point. Change the font size in cell A2 to 18-point. Change the font in cell A15 to 18-point italic and underlined. Change the row height for rows 1, 2, and 15 to fit the contents.

<sup>1</sup> Derived from Shelley/Cashman Excel Workbook, Module 3: Working with Large Worksheets, Charting, and What-If Analysis

12. Insert three columns to the right of the Gross Pay column. (This pushes the existing columns to the right.) Add the column titles **Social Security**, **Medicare**, and **Taxable Income** in cells F3:H3.
13. Center the contents of cells B3:K3.
14. Calculate the Social Security and Medicare taxes in columns F and G by using a formula that multiplies the tax rates in the Tax Rates table by the Gross Pay. Use the correct relative or absolute references in these formulas.
15. Federal taxes are calculated after Social Security and Medicare payments and withholding allowances have been deducted from the Gross Pay. Each withholding allowance is worth \$90.00 per month. Calculate the Taxable Income in column H by subtracting 90 times the number of withholding allowances, and the Social Security and Medicare payments from the Gross Pay. Use the correct relative or absolute references in these formulas. (Note: You may put the amount for a single withholding allowance in a separate cell. That allows a single update if the withholding allowance ever changes. It is also acceptable to put the \$90.00 value in the formula itself, since it is not likely to change soon.)
16. Calculate the federal tax (amount to be withheld) in column I. Use an IF function. Use the correct relative or absolute references in your formulas. (Again, you may wish to specify the Federal Bracket cutoff value in its own cell, as well as the Federal Bracket 2 minimum; or you can put those values directly into the formulas.)
  - a. If an employee has a taxable income of greater than or equal to \$689, then the federal tax withheld equals \$110.85 plus [the federal tax rate found in cell B19 multiplied by the taxable income in excess of \$689].
  - b. If an employee's taxable income less than \$689, the federal tax withheld equals the taxable income multiplied by the federal tax rate found in cell B18.
17. State tax is calculated as a percentage of federal tax. Use the state tax rate from Figure 2: Tax Rate Information to calculate state tax in column J.
18. Calculate Net Pay in column K, as ~~Gross Pay – Social Security, Medicare, Federal Tax, and State Tax, or as Taxable Income – (Federal Tax + State Tax)~~. ~~Either way should result in the same value.~~
19. Merge and center cells A1:K1 and A2:K2.
20. Use the background Light Turquoise, Background 2 for the ranges A1:K2 and A15:B15.
21. Apply a Thick Bottom border to the range A3:K3, and apply a Thick Outside border to the range A15:B20 (or whatever the tax rate table range is in your spreadsheet – you may have added extra rows for extra constant values).
22. Center the range B4:B11. Apply the currency style with two decimal places, no dollar signs, and negative numbers in black and parentheses to the range C4:C11 and E4:K12
23. Apply the *Total* cell style to the range A12:K12.
24. Change the sheet tab name to Weekly Payroll and the tab color to match the color used as background color in cell A1.
25. Save the workbook in your network drive.
26. Add the formula =CELL("filename") in cell D16

27. Check your results. They should look very similar to Figure 3: Example Final Result.

| PHM Reliable Catering<br>Weekly Payroll Report |                        |               |               |                 |                 |              |                 |               |               |                 |
|--|------------------------|---------------|---------------|-----------------|-----------------|--------------|-----------------|---------------|---------------|-----------------|
| Employee                                       | Withholding Allowances | Rate per Hour | Hours Worked  | Gross Pay       | Social Security | Medicare     | Taxable Income  | Federal Tax   | State Tax     | Net Pay         |
| Bartenstein, Tom                               | 1                      | 18.50         | 45            | 878.75          | 56.68           | 13.62        | 718.45          | 117.92        | 23.58         | 576.95          |
| Fernandez, Marissa                             | 0                      | 16.00         | 32.5          | 520.00          | 33.54           | 8.06         | 478.40          | 66.98         | 13.40         | 398.03          |
| Hall, Richard                                  | 2                      | 18.50         | 40            | 740.00          | 47.73           | 11.47        | 500.80          | 70.11         | 14.02         | 416.67          |
| James, Michael                                 | 2                      | 16.50         | 32.5          | 536.25          | 34.59           | 8.31         | 313.35          | 43.87         | 8.77          | 260.71          |
| Lindstrom, Ashley                              | 0                      | 18.00         | 48            | 936.00          | 60.37           | 14.51        | 861.12          | 152.16        | 30.43         | 678.53          |
| Mi, Emily                                      | 2                      | 14.25         | 30            | 427.50          | 27.57           | 6.63         | 213.30          | 29.86         | 5.97          | 177.47          |
| Reed, Linda                                    | 3                      | 19.00         | 52            | 1,102.00        | 71.08           | 17.08        | 743.84          | 124.01        | 24.80         | 595.03          |
| Smith, Caroline                                | 1                      | 13.00         | 27.25         | 354.25          | 22.85           | 5.49         | 235.91          | 33.03         | 6.61          | 196.28          |
| <b>Totals</b>                                  |                        |               | <b>307.25</b> | <b>5,494.75</b> | <b>354.41</b>   | <b>85.47</b> | <b>5,055.17</b> | <b>637.93</b> | <b>127.59</b> | <b>3,299.65</b> |

  

| Tax                                  | Rate      |
|--------------------------------------|-----------|
| Social Security Tax                  | 6.45%     |
| Medicare Tax                         | 1.55%     |
| Federal Tax under \$689              | 14%       |
| Federal Tax \$689+                   | 24%       |
| State tax (% of federal withholding) | 20%       |
| Withholding Allowance                | \$ 90.00  |
| Federal Bracket Cutoff               | \$ 689.00 |
| Federal Bracket 2 minimum            | \$ 110.85 |

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Figure 3: Example Final Result

28. Submit your final result on myCourses in CS-105-B-1 under Content/ Excel Lab 3-2 PHM Reliable Catering.