End of Chapter Material

Chapter 1

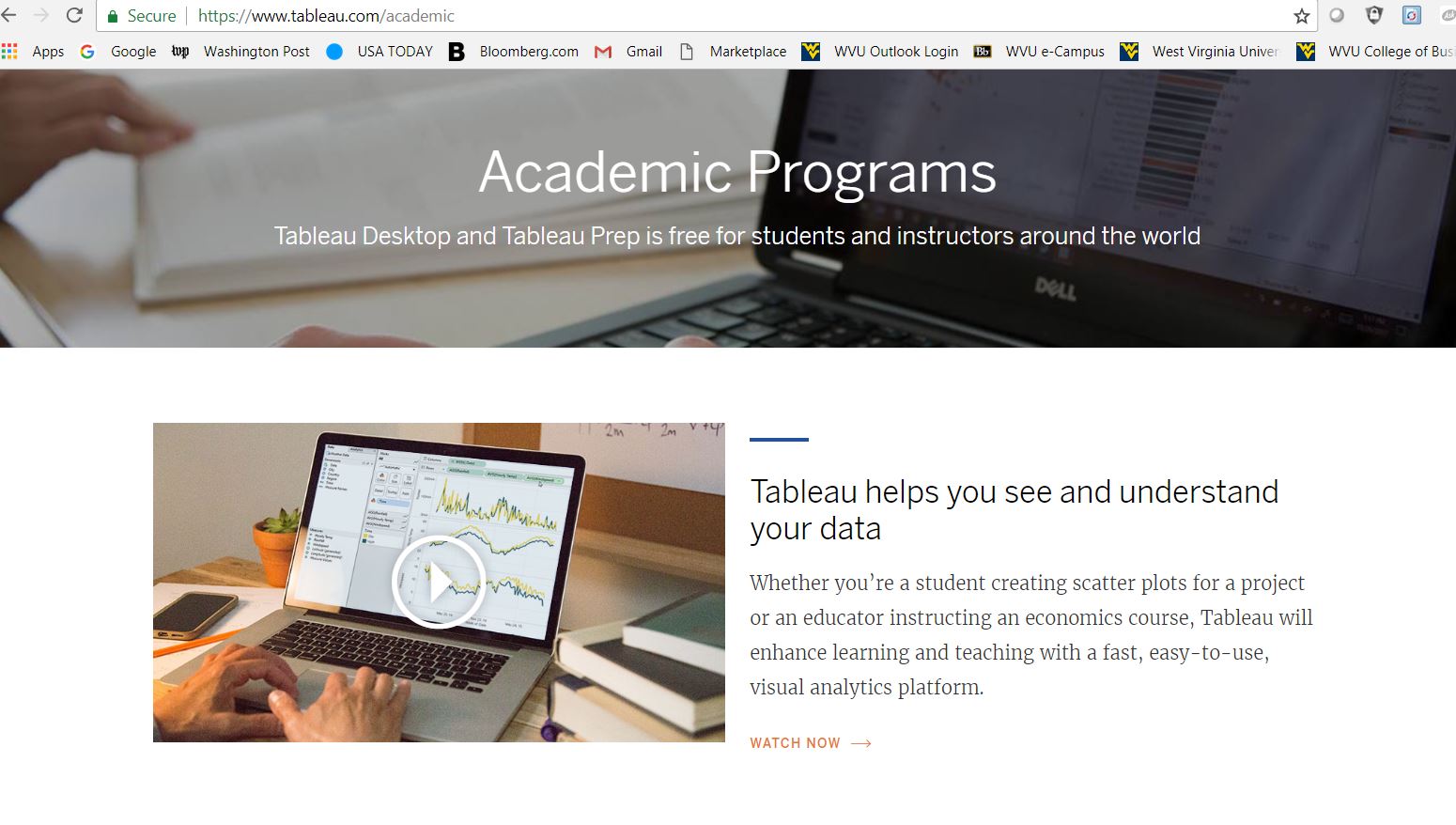


Tableau Exercises

This assignment assumes that the instructor and students have downloaded and opened the academic version of Tableau.

As of the time of this writing, the web address of the Tableau Academic Programs is the following:

<https://www.tableau.com/academic>



Professors interested in incorporating Tableau into the classroom may locate this information from Tableau directly.

Tableau Objective. The overall objective of the following assignments is to support, through communication and analysis, a forensic accounting / fraud examination of the payroll records related to contractors for the period January 1, 2018 through June 30, 2019.

Tableau Case Background. Fairmont Legal Services provides “temporary labor” services to support in-house legal counsel. Lawyers, employed by Fairmont, are located in the United States, Canada, England and Germany. The company started in late 2017, first offering services in 2018.

Fairmont Legal Services has the following accounting and payroll personnel.

* The accounting controller is Jennifer Gally and she manages the payroll master file.
* The payroll manager is Christine Alexander.
* Ms. Alexander gets payroll assistance from a general accounting clerk, Mary Perez. Ms. Perez manages the general ledger and complete almost all reconciliations.
* The accounting department has one other general accountant with no payroll duties, responsibilities nor authority, Carrie Rutten. Ms. Rutten is primarily in charge of the accounts payable, including disbursements, and accounts receivables, including collections, and well as involvement in the monthly closing.

Each week or upon completion of an assignment for a client, the contract laborers (attorneys) are paid. Legal service employees who claim 80 or more hours for a payroll period require the approval of the controller prior to payment. The attorneys are treated as employees and their payroll check can be cut on any day of the week, except Saturday and Sunday. To ensure adequate supervision, review and approval of payroll processing and disbursement, Fairmont strictly requires that payroll processing occur only on Monday-Friday. FICA (social security) and Medicare is withheld from employee paychecks. The company also enrolls all employees in a 401K retirement plan. Employees can contribute up to 6% of their salary. Only one attorney has terminated, Angelina Theresa. Ms. Theresa was one of Fairmont’s first employees and a former long-time roommate of the payroll manager.

The company also incurs payroll related (company) expenses in terms of FICA (6.2%), Medicare (1.45%) and a 6% contribution to the 401K plan (whether the employee contributes or not).

Rates paid to attorney employees range from $65 per hour to a maximum of $125 per hour with rates of $65, $80, $100 and $125 per hour. Client mark-up is 127.3%, including employer benefit costs.

As an example, a $65 hourly rate, plus employee expenses of 13.65 % for FICA – 6.2%, Medicare – 1.45% and 401K – 6% is a total cost to Fairmont of $73.87; the client is charged $147.74; thus, the mark-up on the base rate of $65 is 127.3% (147.74 / 65 = 2.273 minus 1 = 1.273 or 127.3%).

The company runs two payrolls, one for attorney employees who provide labor services to clients. All administrative personnel, including accounting personnel are paid as part of the administrative payroll. When payroll is disbursed, each disbursement has an ordered unique identifier called “Record.”

Known related parties: Christine Alexander has a sister who works for Fairmont as a contract lawyer, Helene Earls. She resides in Germany.

An examination of client profitability indicates that all clients have been billed with the appropriate mark-up. This analysis was completed on each client. Recently, two clients have complained that the costs of their services are over-budget: clients 10002 and 10008. These complaints are being handled by the sales manager and CEO and the clients seem to be very satisfied with the quality of services provided.

Assignment and Skill Summary

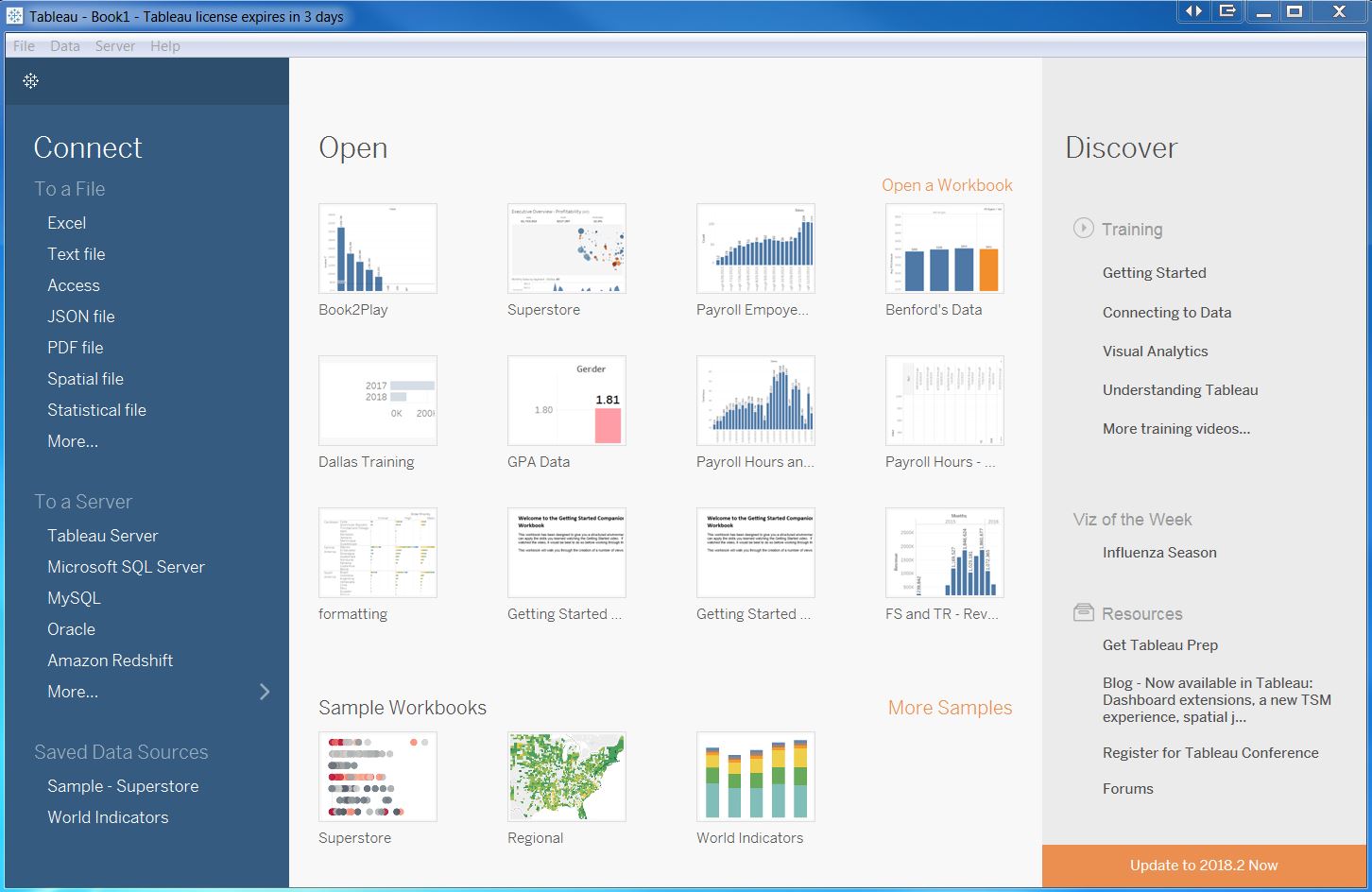
| Chapter | Forensic Audit Finding | Tableau Graphic Task | Tableau Skills |
| --- | --- | --- | --- |
| 1 | Not applicable (Tableau assignment set up only) | Creating a Tableau Book and Connecting a File | Creating a Tableau Book  Connecting a File |
| 2 | The forensic accounting analysis determined that two accounting personnel were identified as inappropriately receiving disbursements through the contract attorney payroll. | Which clients, if any, were invoiced for payroll disbursed to accounting personnel. | Dimensions versus Measures  Using Columns and Rows Shelfs  Creating a Bar Chart  Exclude |
| 3 | The forensic audit has determined that Fairmont is not in compliance with Federal withholding requirements for FICA and Medicare because FICA, Medicare were not withheld from employee paychecks (November 19-23, 2018). | Present this result in a manner that is easy for the CEO, Controller and Payroll Manager to see the anomaly. | Create and Name a New Sheet  Exclude  Extract Data  Date Field  “Show Me” Panel |
| 4 | The forensic audit revealed that Fairmont was not in compliance with company policy that requires explicit approval of all hours of 80 hours or more. | Create a graphic that highlights each incidence where Fairmont was not in compliance with company policy that requires explicit approval of all hours of 80 hours or more? Can the graphic highlight both the employee lacking the approval and the number of hours for each incident. | Removing Null Data  Exclude  Remove from Column Shelf  Use Marks box  Create Labels  Change Date Presentation |
| 5 | The forensic audit has revealed that Fairmont has one employee (Carrie Rutten) that has been paid twice on the same date for the exact number of hours and appear to be duplicate payroll disbursements. | Present a graphic of duplicate payroll disbursements that includes the person’s name, the dates on which duplicate payments were made and the count (number of payments on that date). | Exclude (various techniques)  Remove from Rows Shelf  Change Date Presentation  Change Measures  Change Marks |
| 6 | The forensic audit revealed that against strict company policy, several payroll disbursements were processed on Saturday. | Create a graphic that highlights Saturday payroll processing. | Changing Date Presentation  “Switch” Icon  Create Labels |
| 7 | As noted in assignment 6, the forensic audit revealed that against strict company policy, several payroll disbursements were processed on Saturday. | Create a graphic that highlights the employee whose payroll was processed on Saturday and the dates of the process. | Exclude  Change Date Presentation  Rotate Labels |
| 8 | The forensic audit has revealed a possible “ghost” employee, Theresa Angelina, who was terminated on January 4, 2019. | Present a graphic that presents the payroll disbursement amounts by date for the contact employee who has been terminated but has been paid after termination (i.e., ghost employee). | Keep Only  “Switch” Icon  Change Date Presentation  Filter  Rotate Labels |
| 9 | The forensic audit noted payroll disbursements for “two persons” named Coitty and Coitty with the same first name and address. The interesting observation is that Coitty is dated February 28, 2019 or after while Coitti are all before February 28, 2019. | Create a graphic that shows both payroll hours and gross for Coitti before February 28, 2019 and Coitty dated on or/after February 28, 2019. | Filter  “Switch” Icon  Rearrange order of Columns Shelf |
| 10 | Is Fairmont in compliance with their payroll rates schedule: $65, $80, $100 and $125? | Create a graphic to examine the payroll by rate schedule including the anticipated rates of $65, $80, $100 and $125? | “Analysis” Menu  Create Calculated Field  Convert Measures to Dimensions |
| 11 | The forensic audit showed that a general accounting clerk, Mary Perez, has company expenses for FICA (social security), Medicare and 401K, despite no hours, nor gross payroll expense. | Create a graphic of the Fairmont payroll system’s company expense that highlights general accounting clerk, Mary Perez, has company expenses for FICA (social security), Medicare and 401K, despite no hours, nor gross payroll expense. | Keep Only  Switch Icon  Remove Null Columns |
| 12 | The forensic audit has identified three accounting / payroll personnel with disbursements in the payroll system for which clients may have been inappropriately billed: Christine Alexander, Mary Perez and Carrie Rutten. The forensic audit also revealed that at least two clients appear to have been affected: 10002 and 10008. | Present preliminary total billings and total company payroll expense for clients 10002 and 10008 for each of the above employees. | Use “Analysis” Menu  Create Calculated Field  Filter  Exclude  “Show Me”  Marks  Labels  Remove Labels |
| 13 | The forensic audit has identified a ghost employee with disbursements in the payroll system for which clients may have been inappropriately billed: Theresa Angelina. The forensic audit did not reveal which clients may have been affected. | Present the total billings by client and a grand total for Theresa Angelina for the time period after termination. | Filter  Labels  Range of Dates  Analytics (Row Grand Totals) |
| 14 | Do the payroll hours comply with Benford’s Law? | Present payroll hours Benford’s Law analysis. | Create Calculated Field  Left-Most Integer  Quick Table Calculation  Analytics  Distribution Bands / Cell |
| 15 | Summarize forensic accounting concerns that require follow-up examination | n/a | n/a |
| 16 | Write a report | n/a | n/a |

Assignment 1

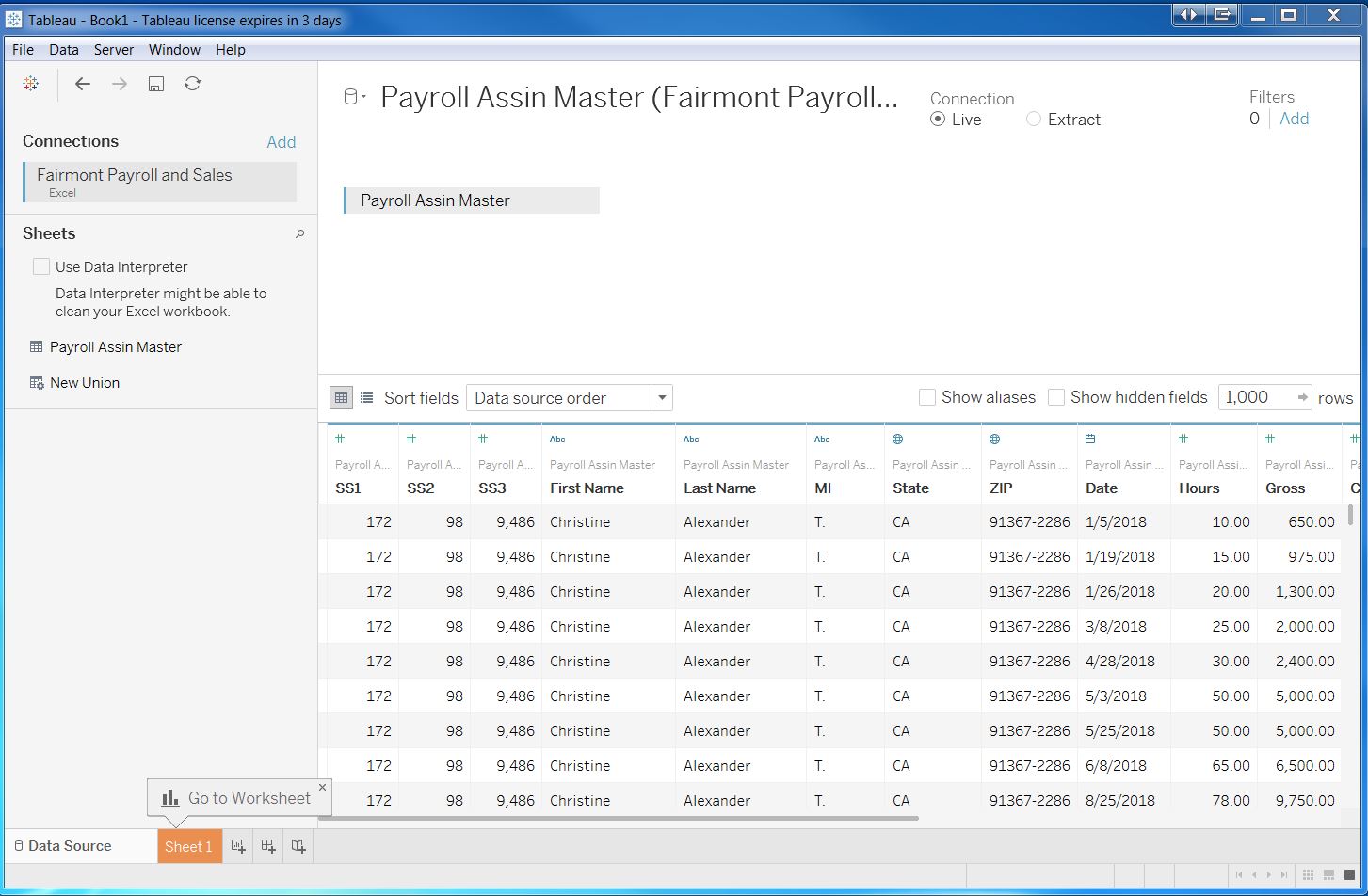
Creating a Tableau Book and Connecting a File

The first step is to create a Tableau Book and Connect to the data.

1. Open TABLEAU
2. Click on “Excel” under “Connect” (red oval)

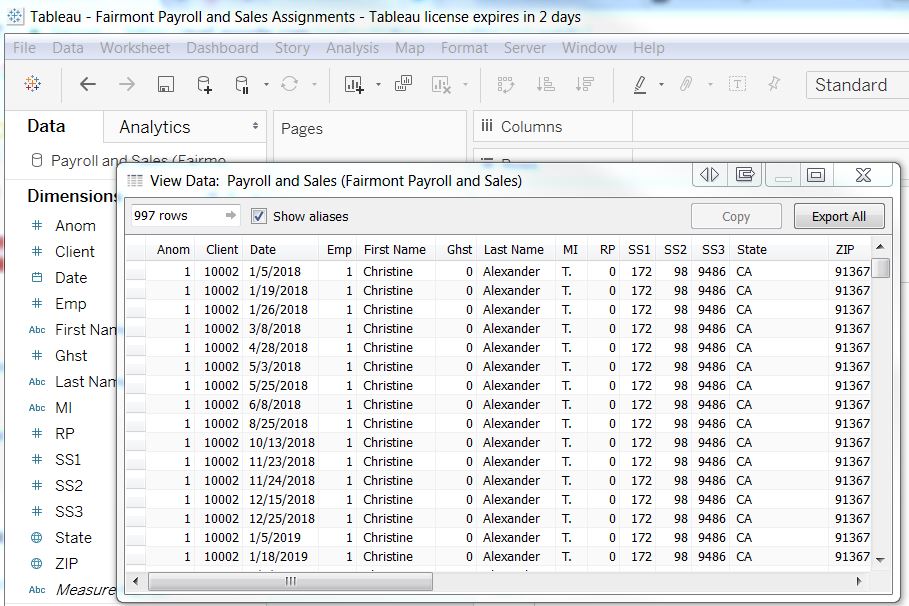


1. Locate the Excel file titled, “Fairmont Payroll and Sales”.
2. Click “OK”
3. Click on “File” and save Tableau “book” on the hard drive under a name you create (red oval)
4. Then, on the bottom, click on “Go to Worksheet” (Sheet 1) (blue square)



The second step is to ensure that all data connected.

1. Click on “Data” (red oval)
2. Click on the Excel filename (bottom)
3. Click on “View Data” (third line from the top)
4. The file should have 997 rows. (The importance of ensuring that data imports are complete cannot be over-emphasized). (blue square)



1. “X” out of “View Data”