2. Connect to Your Data

1. On the Tableau start screen, look at the Connect pane on the left.

2. Under To a File, click Text File.

3. In the file chooser dialog, navigate to your adult.csv file and click Open.

4. Tableau opens the Data Source tab. You should see a preview grid of your data.

5. On the top left of the preview, confirm you have one sheet named something like adult.

6. In the preview grid, check each column's data type icon:

   o age, education-num, capital-gain, capital-loss, hours-per-week should show #

   o workclass, education, marital-status, occupation, relationship, race, sex, native-country, income should show ABC

7. If any data type is incorrect, click its icon and choose the correct type (e.g., String, Number, Date).

8. (Optional) At top left, click the data source name (e.g. adult.csv) and rename it to Adult Census.

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3. Verify Fields in the Data Pane

1. Click the Sheet 1 tab at the bottom.

2. In the left Data pane, you should see two sections:

   o Dimensions (all your string and categorical fields)

   o Measures (numeric fields)

3. Confirm these fields exist:

   o Dimensions: age, workclass, education, education-num, marital-status, occupation, relationship, race, sex, native-country, income

   o Measures: (Tableau auto-generates) Number of Records

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4. Create Worksheets

We'll build seven worksheets—one for each of your questions (c is omitted because the dataset has no date field).

a. Income Distribution for Master's & Doctorate Holders

1. Click the New Worksheet icon (sheet with a "+") at the bottom.

2. Double-click the sheet tab "Sheet 2" and rename it to Income: Masters & Doctorate.

3. In Dimensions, locate education, click the drop-arrow ▶, select Filter….

4. In the Filter dialog:

   o Click the General tab.

   o Check Masters and Doctorate.

   o Click OK.

5. In Dimensions, double-click income. A pill income appears on the Columns shelf.

6. In Measures, double-click Number of Records. A pill SUM(Number of Records) appears on the Rows shelf.

7. On the Marks card, click the drop-arrow on the mark type (probably "Automatic") and choose Bar.

8. From Dimensions, drag income onto Color on the Marks card.

9. From Measures, drag Number of Records onto Label on the Marks card.

10. On the toolbar, click Show Me, ensure the Bar chart icon is highlighted (if not, click it).

11. Double-click the sheet title at top and enter:

rust

Copy code

Income Distribution for Master's & Doctorate Holders

12. Press Enter to set the title.

---

b. Income Distribution for Private Sector Workers

1. Click New Worksheet (+).

2. Rename the new sheet to Income: Private Sector.

3. In Dimensions, right-click workclass → Filter….

4. In the Filter dialog: check Private, then OK.

5. Double-click income (Columns) and Number of Records (Rows).

6. On the Marks card, set the mark type to Bar.

7. Drag income to Color, drag Number of Records to Label.

8. Title the sheet:

rust

Copy code

Income Distribution for Private Sector Employees

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c. (Skipped – no date field)

The "Adult" dataset has no "year" or "date" column, so skip this sheet or replace with another time-based analysis if you have a separate year field.

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d. Geospatial Map: Count by Native Country

1. New Worksheet → rename to Map: Native Country.

2. In Dimensions, double-click native-country. Tableau automatically generates a map view.

3. In Measures, drag Number of Records onto Color on the Marks card.

4. (Optional) Drag Number of Records onto Size for proportional circles.

5. Click the Color legend, then click its drop-arrow ▶ → Edit Colors….

6. In the Edit Colors dialog, choose a sequential palette (e.g. Orange), then OK.

7. Double-click title and enter:

mathematica

Copy code

Record Count by Native Country

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e. Scatter: Age & Education-Num vs Income

1. **New Worksheet → rename to Age & Education vs Income.**

2. **In Dimensions, drag age onto Columns.**

   o **On the age pill, click the drop-arrow ▶ → ensure Continuous is selected.**

3. **In Dimensions, drag education-num onto Rows.**

4. **On the Marks card, choose Circle.**

5. **In Dimensions, drag income onto Color.**

6. **In Measures, drag Number of Records onto Size.**

7. **Drag Number of Records onto Label (optional).**

8. **Title:**

vbnet

Copy code

Age and Education-Num vs Income Class

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f. Bar Chart: Gender Ratio by Country

1. **New Worksheet → rename to Gender Ratio by Country.**

2. **In Dimensions, drag native-country to Rows.**

3. **In Measures, drag Number of Records to Columns.**

4. **On the Number of Records pill in Columns, click ▶ Quick Table Calculation → Percent of Total.**

5. **In Dimensions, drag sex onto Color on the Marks card.**

6. **Drag sex onto Label to show percentages for Male/Female.**

7. **Title:**

csharp

Copy code

Male vs Female Percentage by Country

g. Income Distribution: Government vs Other Workclasses

1. New Worksheet → rename to Income: Govt vs Other.

2. In Dimensions, right-click workclass → Create → Group….

    o In the Group dialog, select Federal-gov, Local-gov, State-gov, then click Group.

    o Rename the new group Government.

    o Select all remaining workclass values, click Group, rename Other.

    o Click OK.

3. In Dimensions, double-click Workclass (Group) onto Columns.

4. Double-click income onto Rows.

5. In Measures, double-click Number of Records to bring it to the view.

6. On Marks, set mark type to Bar.

7. Drag Number of Records onto Label and onto Color.

8. Double-click title and enter:

yaml

Copy code

Income Distribution: Government vs Other Workclasses

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5. Build the Dashboard

1. Click the New Dashboard icon (next to sheet tabs).

2. In the left Sheets pane, drag each worksheet onto the dashboard canvas in this layout:

css

Copy code

[Income: Masters & Doctorate]   [Income: Private Sector]

[Map: Native Country]   [Age & Education vs Income]

[Gender Ratio by Country]   [Income: Govt vs Other]

3. **Resize and arrange as needed by dragging sheet borders.**

4. **Double-click the dashboard title area and type:**

nginx

Copy code

Adult Census Data Analysis

5. **To add a filter control (e.g. for native-country):**

   o **On one worksheet in the dashboard, click the drop-arrow ▶ on its card →
     Filters → native-country.**

   o **In the dashboard, click the filter's drop-arrow ▶ → Apply to Worksheets → All
     Using This Data Source.**

6. **On the right, under Size, choose Fixed size → Desktop Browser (1400×900).**

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6. Publish & Share

1. **From the menu, click File → Save to Tableau Public (or Save to Tableau Server).**

2. **Sign in with your Tableau Public account.**

3. **Enter a name for your workbook and click Save.**

4. **Once uploaded, Tableau gives you a URL—copy this to share your interactive
   dashboard.**