

# Lab #17 European Immigration Boom

## This Project

Students utilize spreadsheets to analyze European immigration data in the United States between 1830 and 1860. They will use this data to create stacked column charts to display the information. The charts that are generated at the completion of this activity can also be compared to the chart created in the Lab 16, which may be helpful in illustrating the changes that have occurred in American population through history.

## Materials

None

## Before the Computer

- This activity is best when done following Lab 16.
- Discuss the immigration of Europeans into the United States during the period between 1830 and 1860.
- This ten-year period became one of the largest immigration booms in American history and was lead by immigrants from two major European nations.

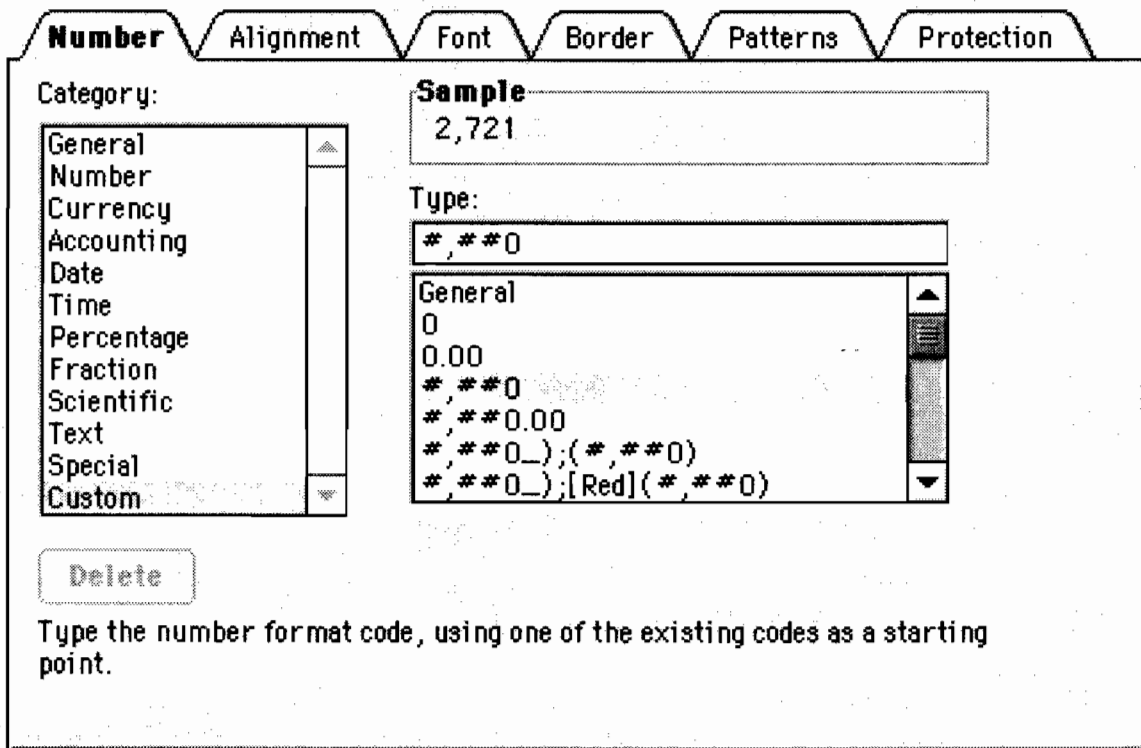
## A. Create a Spreadsheet

1. Open a new workbook document in *Excel*.
2. Click in cell A1. Type the label (*Year*).
3. Press the **Tab** key on your keyboard to move to cell B1.
4. In cell B1, type (*Irish Immigration*). Then press **Tab** to move to cell C1.
5. In cell C1, type (*German Immigrants*). Once again press **Tab**.
6. Enter (*Other Immigrants*) in cell D1.
7. Change the style of all three labels to **Bold**. To do this, highlight the cells and click on the **Bold** button (**B**) on the tool bar.
8. Now enter the immigration data from the following table into the correct columns in your spreadsheet. Do not use commas when you enter the immigration numbers.

European Immigration Into the United States for the Period of 1830-1860			
Year	Irish Immigrants	German Immigrants	Other Immigrants
1830	2,721	1,976	18,625
1840	39,430	29,704	14,932
1850	164,004	78,896	127,080
1860	48,637	54,491	50,512

# Lab 17 (cont.)

9. Center all of the data in each cell by highlighting the cells and clicking on the **Center** button on the tool bar.
10. Highlight cells B2-D5.
11. Go to the **FORMAT** menu, and drag your mouse down to select **Cells**.
12. Click the **Number** tab. Choose **Custom** from the **Category list**, and select **#,##0**.

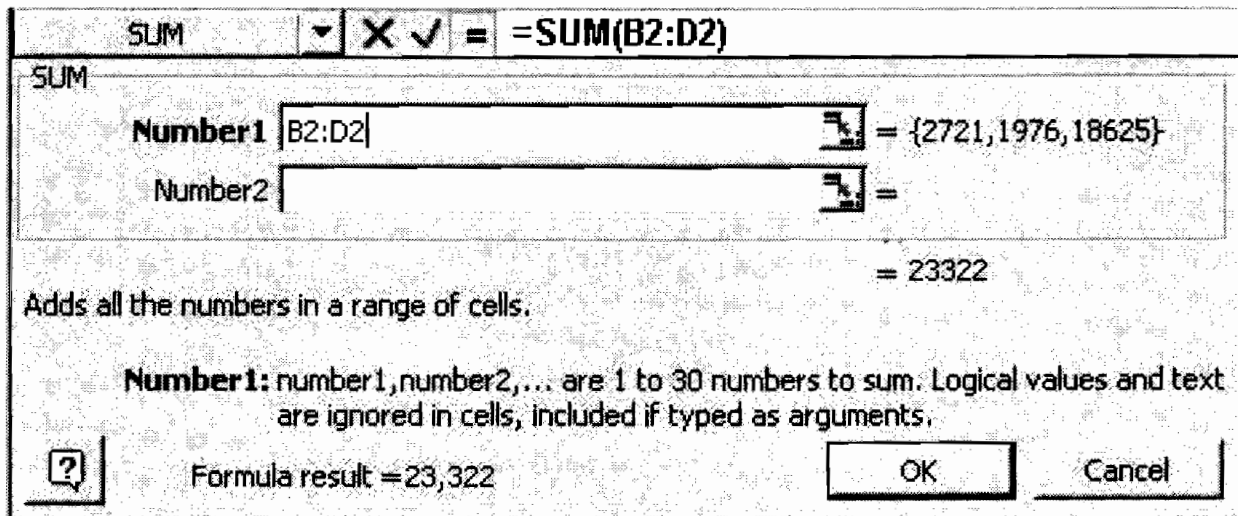


13. Click **ok**. This will automatically insert commas where needed in your numbers.

	A	B	C	D
1	<b>Year</b>	<b>Irish Immigrants</b>	<b>German Immigrants</b>	<b>Other Immigrants</b>
2	1830	2,721	1,976	18,625
3	1840	39,430	29,704	14,932
4	1850	164,004	78,896	127,080
5	1860	48,637	54,491	50,512

# Lab 17 (cont.)

14. Click in cell E1. Enter the label (*Total Immigrants*). Then press the Return or Enter key on your keyboard. This will move you to cell E2.
15. Go to the **INSERT** menu. Select **Function**.
16. Choose **Math & Trig** from the **Function Category list**. Scroll down the **Function Name list**, and choose **Sum**.
17. Click **ok**.
18. Click the red arrow icon located at the right side of the Number 1 box.
19. Highlight cells B2-D2. Press **Return** or **Enter**.



20. Click the **OK** button. The total number of immigrants for 1830 should now be displayed in cell D2. Repeat this procedure to display the total number of immigrants for each individual year.

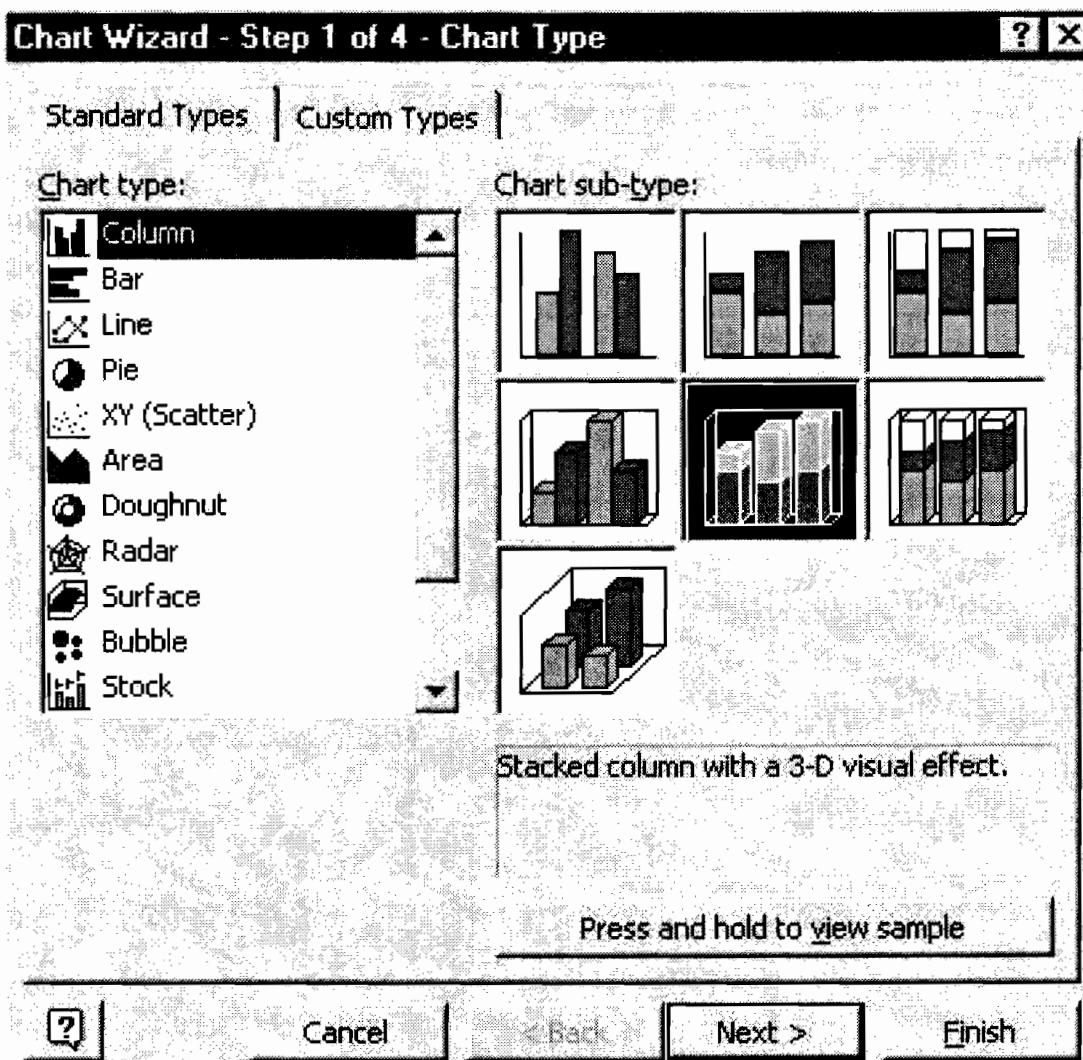
	A	B	C	D	E
1	<b>Year</b>	<b>Irish Immigrants</b>	<b>German Immigrants</b>	<b>Other Immigrants</b>	<b>Total Immigrants</b>
2	1830	2,721	1,976	18,625	23,322
3	1840	39,430	29,704	14,932	84,066
4	1850	164,004	78,896	127,080	369,980
5	1860	48,637	54,491	50,512	153,640

21. Save your data at this point and continue with part B.

# Lab 17 *(cont.)*

## B. Create a Three Dimensional Stacked Column Chart

1. Go to the **INSERT** menu and drag your mouse down to select **Chart**, or you can click on the **Chart Wizard** icon located on your tool bar.
2. In the **Chart Types** window, select **Column** from the **Chart Type** list. Choose the **Stacked Column with 3-D Visual Effect** from **Chart Sub Types**.

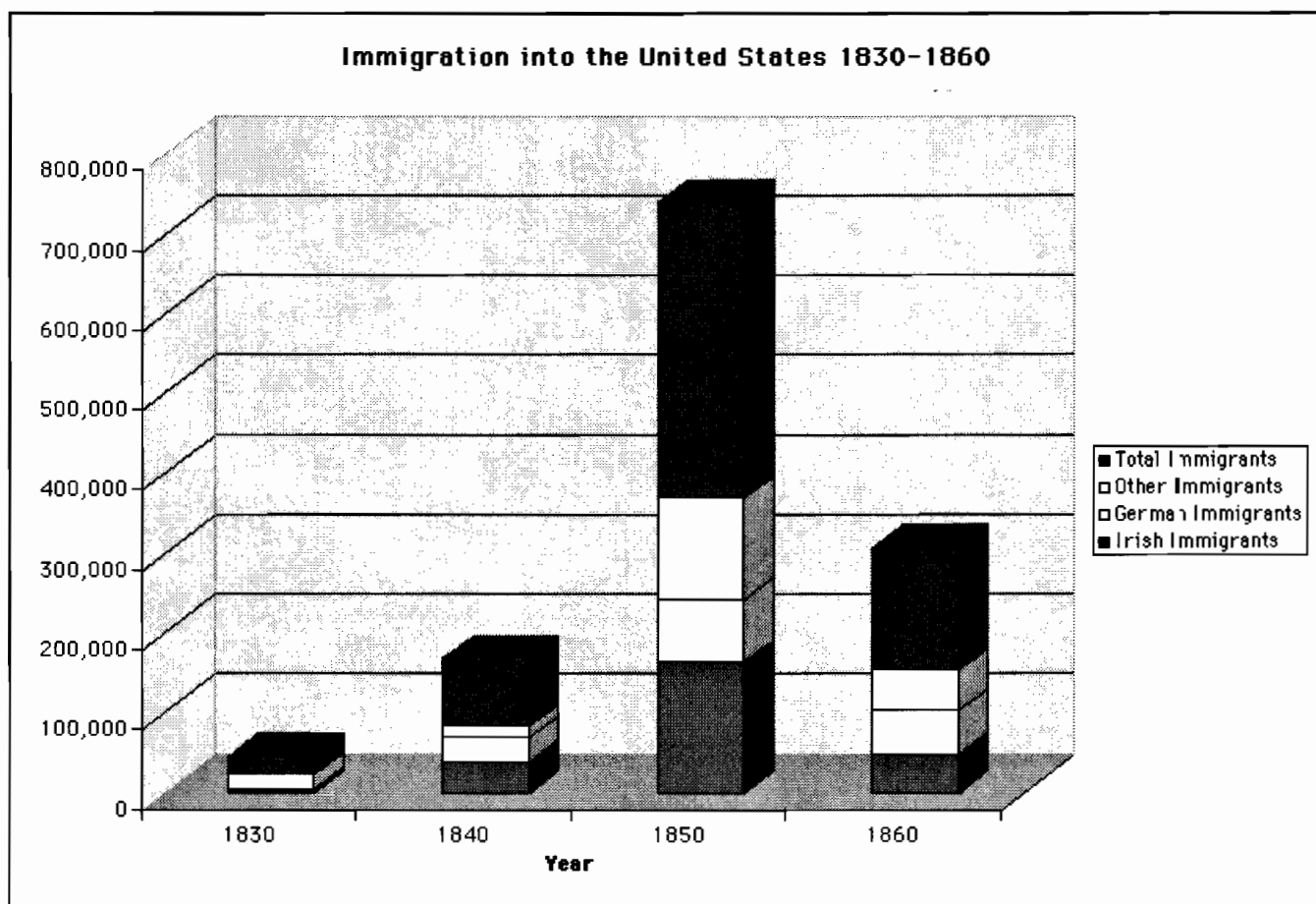


3. Click the **Next** button.
4. In the **Chart Source Data Window**, click the **Series** tab. Click on **Year** in the **Series** list. Click the **Remove** button. This will remove the year data from the chart.

# Lab 17 *(cont.)*

5. Click the red arrow icon located to the right of the Category x-axis Labels box.
6. Highlight cells A2-A5. Press **Return** or **Enter**. This will display the years as labels on the x-axis of your charts.
7. Click the **Next** button.
8. Click on the **Titles** tab. Enter the title (*Immigration to the United States 1830-1860*) in the Title box.
9. Click in the Category x-axis box. Type (*year*). Then click the **Next** button.
10. Choose **As New Sheet** and type (*column chart*) in the box next to it.
11. Click **Finish** to display your chart.

How does this population data differ from the data on immigration from colonial times you worked with in the previous lab?



This completes the activity.

Remember to save your file.