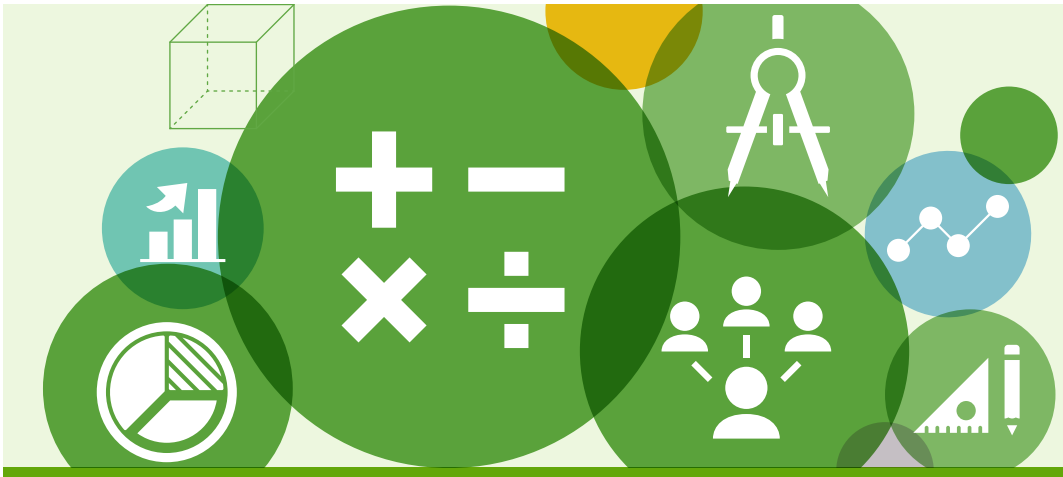


STUDENT VERSION

FREQUENCY DISTRIBUTIONS – HISPANIC OR LATINO POPULATION PERCENTAGES IN 50 STATES AND THE DISTRICT OF COLUMBIA

Activity Item

The following item is part of this activity and appears at the end of this student version.

- Item 1: Hispanic or Latino Percentage of the Population in 50 States and District of Columbia: 2022

Student Learning Objectives

- I will be able to complete frequency tables.
- I will be able to create and interpret histograms.

How do the percentages of people who are Hispanic or Latino in each state and the District of Columbia vary?

To complete your assigned part of this activity and help your group answer the question above, review the data in **Item 1: Hispanic or Latino Percentage of the Population in 50 States and District of Columbia: 2022**. Start by placing tally marks in the second column of your frequency table for each data value that falls in the appropriate class width in the first column.

Example: In 2022, 2.3 percent of the population in Vermont was Hispanic or Latino, so for that percentage you should add a tally mark to the "0 to less than 5" class width, as shown here:

Class Width	Tally Marks
0 to less than 5	I

After tallying all the percentages, convert the tally marks to frequency values in the third column, as shown here:

Class Width	Tally Marks	Frequency
0 to less than 5	𝍸	5

You can add your frequencies in the total row to make sure you didn't miss any data points. The total should always be 51. Use the data in your frequency table to make a histogram on your graph template.

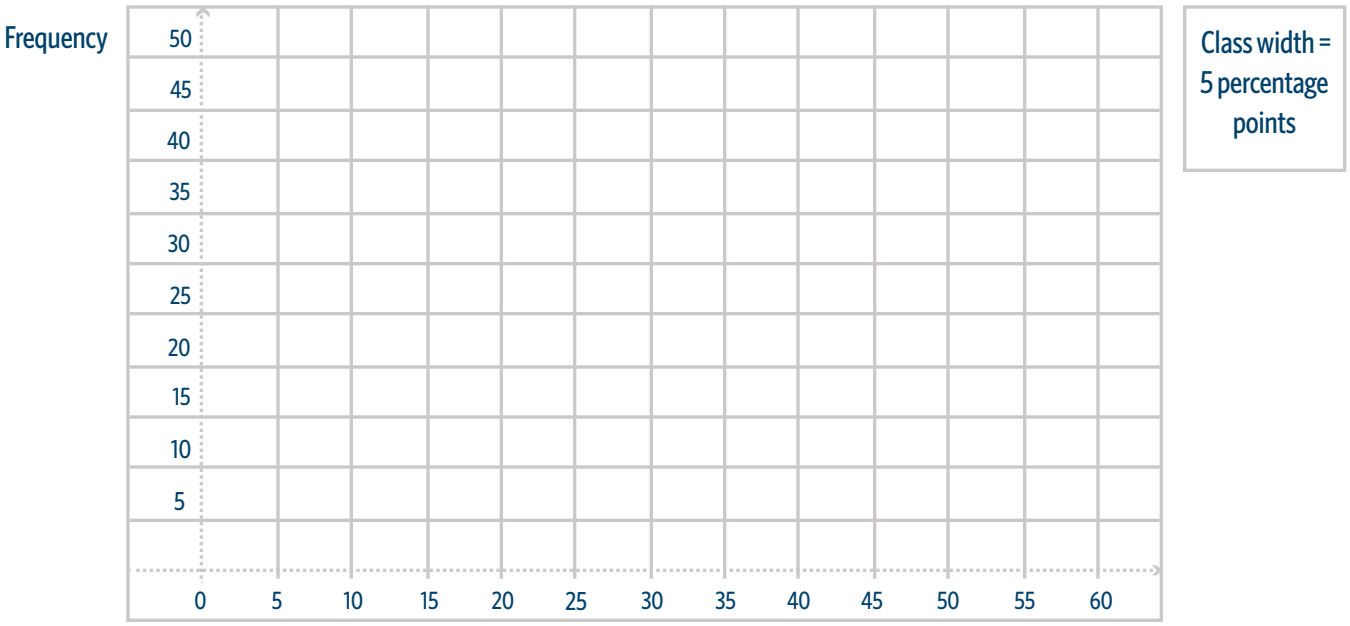
NAME:_____ DATE:_____

Part 1 – Make a Frequency Table and Histogram With a Class Width of 5 Percentage Points

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022
(Class Width = 5 Percentage Points)

Class Width	Tally Marks	Frequency
0 to less than 5		
5 to less than 10		
10 to less than 15		
15 to less than 20		
20 to less than 25		
25 to less than 30		
30 to less than 35		
35 to less than 40		
40 to less than 45		
45 to less than 50		
50 to less than 55		
		Total:

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022

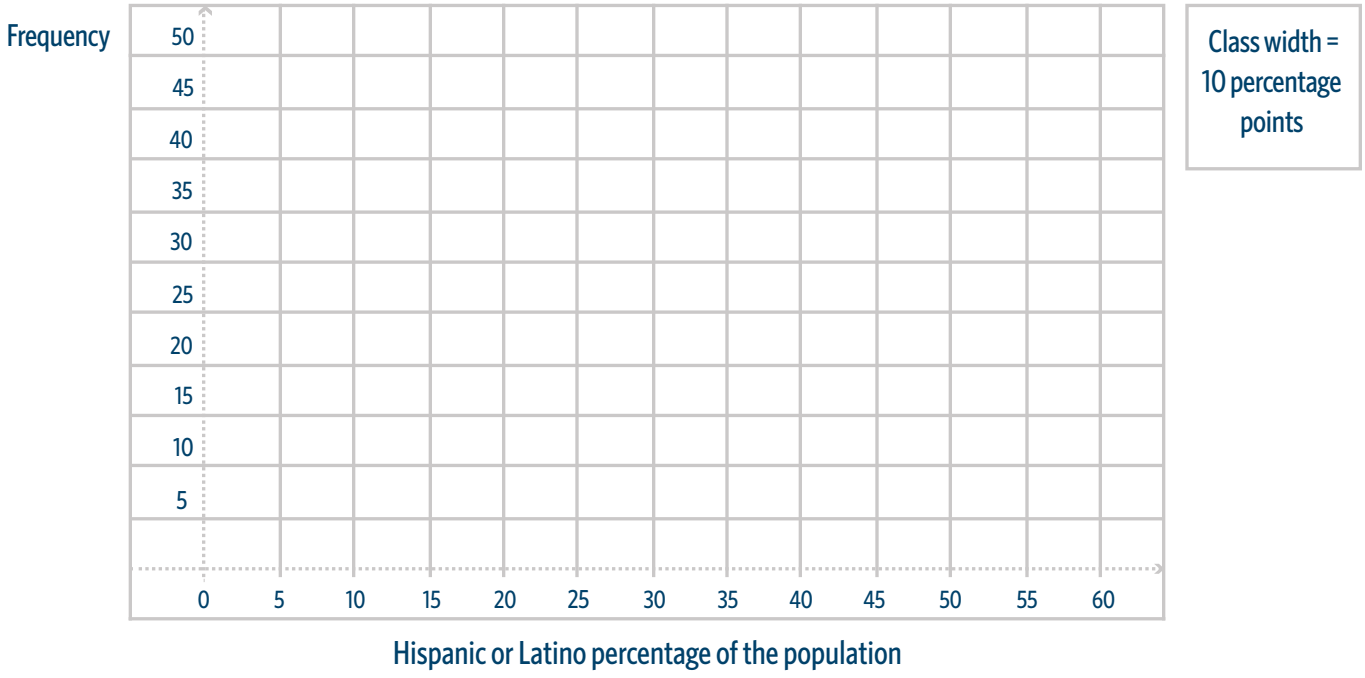


Part 2 – Make a Frequency Table and Histogram With a Class Width of 10 Percentage Points

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022
(Class Width = 10 Percentage Points)

Class Width	Tally Marks	Frequency
0 to less than 10		
10 to less than 20		
20 to less than 30		
30 to less than 40		
40 to less than 50		
50 to less than 60		
		Total:

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022

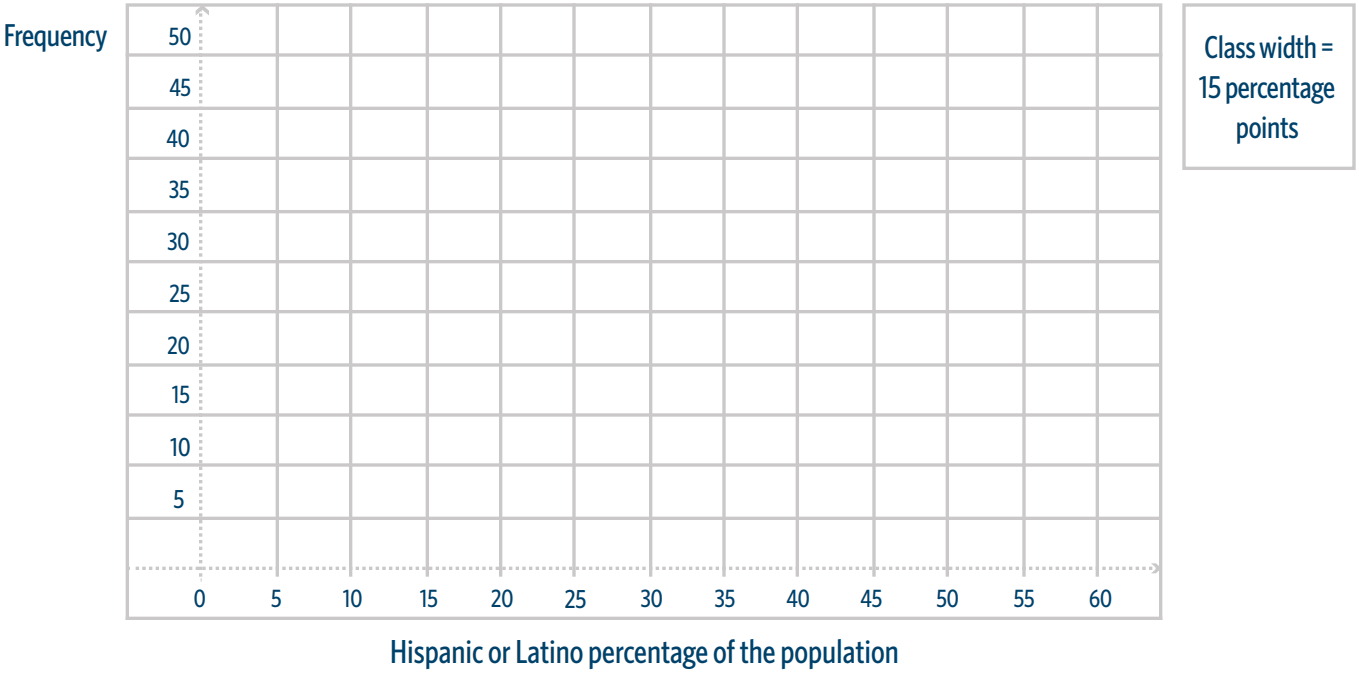


Part 3 – Make a Frequency Table and Histogram With a Class Width of 15 Percentage Points

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022
(Class Width = 15 Percentage Points)

Class Width	Tally Marks	Frequency
0 to less than 15		
15 to less than 30		
30 to less than 45		
45 to less than 60		
		Total:

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022

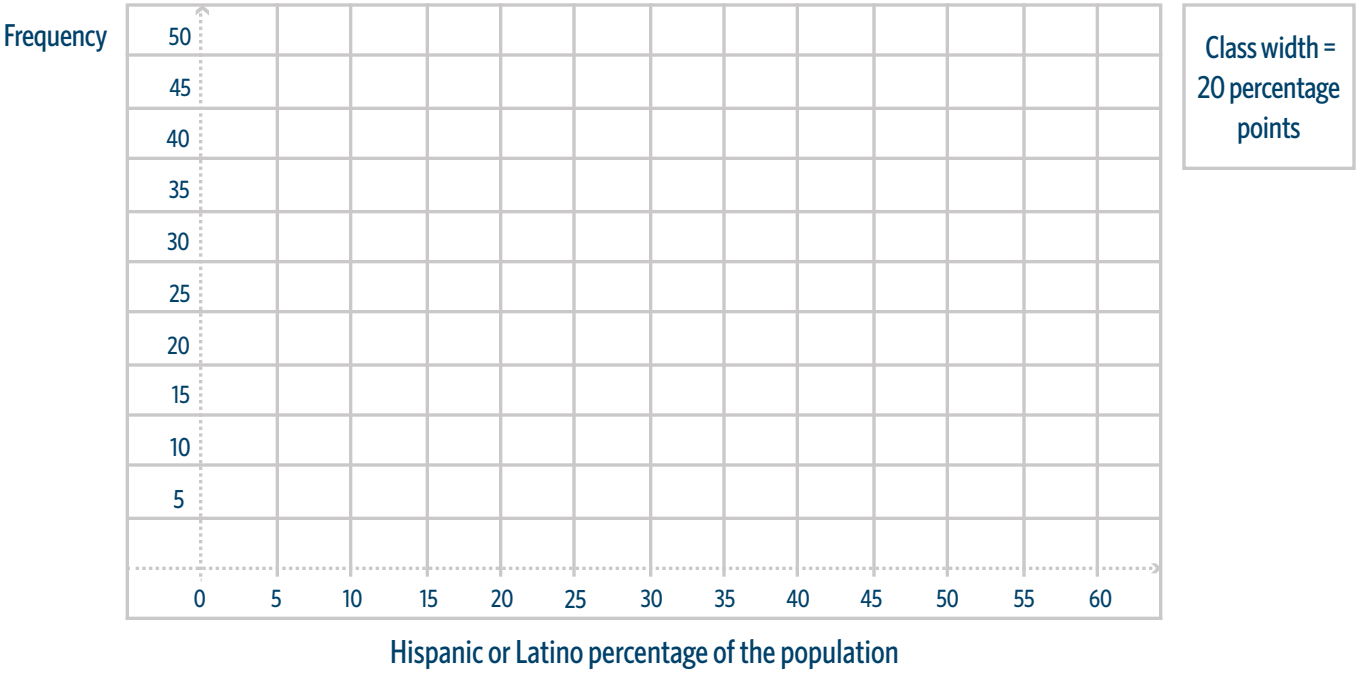


Part 4 – Make a Frequency Table and Histogram With a Class Width of 20 Percentage Points

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022
(Class Width = 20 Percentage Points)

Class Width	Tally Marks	Frequency
0 to less than 20		
20 to less than 40		
40 to less than 60		
		Total:

Frequency of the Hispanic or Latino Percentage of the Population for Each State and District of Columbia: 2022



Part 5 – Summarize Your Data

Now work with your group members to review the frequency tables and histograms you each created and to complete the following table, for use in answering the questions below.

Part #	Class Width	Total Number of Class Groups	Class Width x Total Number of Class Groups
1	5		
2	10		
3	15		
4	20		

1. What do you notice about the numbers in the last column of the table above?

2. If you increase the number of class groups, what happens to the class width?

3. If you increase the class width, what happens to the number of class groups?

4. Look back at all four histograms that your group members made to fill in the following table.

At what percentage do the data appear to be centered?	
What appears to be the range of the data?	
Which way do the data appear to be skewed?	

5. Which class width helps you give the most accurate answers to the questions in the table above? How?

6. What do you think are the disadvantages of the smaller class widths when compared with the larger class widths?

7. What do you think a histogram for these data would look like if the class width were 1 percentage point?

Part 6 – Make a Frequency Chart and Histogram About the Asian Population (Optional)

Now that you've practiced creating frequency tables and histograms to learn about Hispanic or Latino population percentages, do the same for the Asian population using data from the table below.

Asian Percentage of the Population in 50 States and District of Columbia: 2022

State/District	Percentage Asian Population
Alabama	2.2
Alaska	9.1
Arizona	5.0
Arkansas	2.2
California	18.1
Colorado	5.0
Connecticut	5.9
Delaware	5.2
District of Columbia	5.9
Florida	3.9
Georgia	5.4
Hawaii	56.4
Idaho	2.6
Illinois	7.0
Indiana	3.2
Iowa	3.1
Kansas	3.8
Kentucky	2.0
Louisiana	2.3
Maine	1.8
Maryland	8.1
Massachusetts	8.4
Michigan	4.2
Minnesota	6.3
Mississippi	1.4
Missouri	2.9

State/District	Percentage Asian Population
Montana	1.7
Nebraska	3.4
Nevada	11.9
New Hampshire	3.7
New Jersey	11.3
New Mexico	2.8
New York	10.3
North Carolina	4.1
North Dakota	2.2
Ohio	3.2
Oklahoma	3.2
Oregon	6.8
Pennsylvania	4.6
Rhode Island	4.6
South Carolina	2.4
South Dakota	2.3
Tennessee	2.6
Texas	6.5
Utah	3.9
Vermont	2.6
Virginia	8.7
Washington	12.7
West Virginia	1.3
Wisconsin	3.7
Wyoming	1.5

This data represents Asian alone or in combination with one or more other races.

Source: U.S. Census Bureau, 2022 American Community Survey 1-Year Estimates

https://data.census.gov/table/ACSDP1Y2022.DP05?q=DP05&g=010XX00US$0400000&moe=false&tp=false

1. Examine the data and decide the appropriate class width for your frequency table, writing it in the blank below. (In general, mathematicians like to separate data into between five and ten class groups.)

   Class Width: _____

2. Fill in your frequency table, adding a descriptive title in the space provided.

   Title:

Class Width	Tally Marks	Frequency

3. Create your histogram of these data on the grid below. Make sure to write the class boundaries along the horizontal axis and the frequency intervals along the vertical axis, to add a title, and to label both your axes.

4. Find a classmate who chose a different class width than you, and then work together to complete the following table about both your histograms.

	At what percentage do the data appear to be centered?	**What appears to be the range of the data?**	**Which way do the data appear to be skewed?**
Your histogram			
Your classmate's histogram			

5. Did you and your classmate discover any unusual observations in the data? If so, explain.

6. Working on your own now, look at the histogram you just created for this part and the histogram you created earlier in this activity to complete the following table.

	At what percentage do the data appear to be centered?	**What appears to be the range of the data?**	**Which way do the data appear to be skewed?**
Your Asian population histogram			
Your Hispanic or Latino population histogram			

7. List three ways that your two data distributions (for the Asian and for the Hispanic or Latino populations) are different.

8. Thinking back to your class discussion before this activity about the American Community Survey (ACS), list three questions that you think could be answered using ACS data.

Item 1: Hispanic or Latino Percentage of the Population in 50 States and District of Columbia: 2022

State/District	Percentage Hispanic or Latino Population
Alabama	4.9
Alaska	7.7
Arizona	32.5
Arkansas	8.4
California	40.3
Colorado	22.5
Connecticut	18.2
Delaware	10.3
District of Columbia	11.7
Florida	27.1
Georgia	10.4
Hawaii	11.1
Idaho	13.5
Illinois	18.3
Indiana	7.8
Iowa	6.8
Kansas	13.0
Kentucky	4.2
Louisiana	5.7
Maine	2.1
Maryland	11.4
Massachusetts	13.0
Michigan	5.7
Minnesota	5.8
Mississippi	3.3
Missouri	4.7

State/District	Percentage Hispanic or Latino Population
Montana	4.4
Nebraska	12.3
Nevada	30.3
New Hampshire	4.5
New Jersey	21.9
New Mexico	50.2
New York	19.7
North Carolina	10.4
North Dakota	4.4
Ohio	4.4
Oklahoma	12.1
Oregon	14.4
Pennsylvania	8.6
Rhode Island	17.6
South Carolina	6.5
South Dakota	4.7
Tennessee	6.3
Texas	40.2
Utah	15.1
Vermont	2.3
Virginia	10.4
Washington	14.0
West Virginia	1.9
Wisconsin	7.6
Wyoming	10.8

U.S. Census Bureau, 2022 American Community Survey 1-Year Estimates

https://data.census.gov/table/ACSDP1Y2022.DP05?q=DP05&g=010XX00US$0400000&moe=false&tp=false