

STUDENT VERSION

CREATING AND INTERPRETING HISTOGRAMS – AGE DISTRIBUTION OF HOUSEHOLDERS IN THE UNITED STATES

Activity Items

The following items are part of this activity and appear at the end of this student version.

- Item 1: Households, by Type, and Age of Householder, 2023
- Item 2: Histogram Templates

Student Learning Objectives

- I will be able to create, compare, and interpret histograms.
- I will be able to describe the shapes of data distributions.
- I will be able to discuss factors that might explain the shapes of these data distributions.

In a given year, how old do you think most householders are? Do you think there is the same number of householders in their 20s as there is of those in their 50s? Are there more men, women, or married couples who are householders?

We can answer all of these questions using data from the U.S. Census Bureau that show the age distribution of householders according to household type.

In **Item 1: Households by Type, and Age of Householder, 2023**, the blue rows show "all households," the pink rows show "family households," and the green rows show "nonfamily households." The table provides the age distribution for just those householders ages 25 through 54, although there were both older and younger householders in the United States in 2023. Note that all numbers in **Item 1** are in thousands.

NAME:_____ DATE:_____

Part 1 – Examine the Data and Create Histograms

1. Were there more family or nonfamily households in the United States in 2023? Include the data that support your answer.

2. What is the definition of a family household?

3. Decide whether each of the following makes up a family or nonfamily household:
   a. A grandmother owns a house, and her daughter and three grandchildren live with her.
   b. Three single men rent an apartment together.
   c. A woman rents an apartment and two of her nieces live with her.
   d. A married couple rents a house, and they have two cousins who live with them.
   e. A woman owns a condo, and her 25-year-old son lives with her.
   f. A woman owns a condo and lives alone.

4. How many married couple householders were ages 25–29 in 2023?

5. Which age group had the largest number of **female nonfamily** householders in 2023? Why do you think this was the largest group?

6. Which age group had the largest number of **female family** householders in 2023? Why do you think this was the largest group?

7. Choose two rows of data (other than "Total" rows) that you can compare, and write them below:

   My two rows are _____ and _____.

8. Draw a star next to each of your two rows in the table, using a red pen.
9. Create two histograms — one for each of your selected rows of data. Be sure to include all of the row data in your histogram *except* for the data in the "Total" column. You can use your own graph paper, **Item 2: Histogram Templates**, or graphing technology (if provided). Label one histogram as "Histogram A" and the other as "Histogram B."

   Then add a more descriptive title to each graph and label your axes, making sure that the label for the y-axis includes "in thousands." The horizontal axis for both histograms should have the same scale: five years. The vertical axis for both histograms should also have the same scale, which you will determine.

   Remember, histograms have bars that represent equal ranges of data, and there are no gaps between the bars. Once you have created all of your bars, include the exact number of households for each type on top of each bar.

Part 2 – Analyze and Compare Your Histograms

1. In your Histogram A, which age range had the most households? _____
2. In your Histogram B, which age range had the most households? _____
3. In your Histogram A, which age range had the fewest households? _____
4. In your Histogram B, which age range had the fewest households? _____
5. Do your histograms have the same shape? Describe the shape of each histogram.

6. If your histograms have the same shape, or different shapes, why do you think that is?

Part 3 – Write a News Article

Write a three-paragraph news article — with a headline — that discusses what you learned about the ages of householders in different types of households in the United States in 2023. In the first paragraph, answer this question: "How are the ages of householders distributed in various types of households in the United States?" Be sure to cite specific examples from the data and from your histograms.

In the second paragraph, talk about what happens in families as people get older and about groups of people who live together. In the third paragraph, explain why it is important that the Census Bureau collect these data and how other government agencies, schools, businesses, charities, and individuals might use them.

Item 1: Households, by Type, and Age of Householder, 2023

Note that all numbers in the table are in thousands.

Type of household, all numbers in thousands, 2023 data	Total, including those < 25 years and > 54 years	Under 25 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years
All Households								
Total	**131,434**	**6,136**	**9,374**	**11,350**	**11,324**	**11,207**	**10,416**	**11,084**
Married Couple	62,175	788	2,811	5,344	6,260	6,345	6,098	6,239
Male Householder	29,865	2,887	3,397	2,873	2,404	2,113	1,867	2,105
Female Householder	39,393	2,462	3,166	3,134	2,660	2,749	2,450	2,740
Family Households								
Total	**84,334**	**2,842**	**4,815**	**7,743**	**8,641**	**8,841**	**8,219**	**8,242**
Married Couple	62,175	788	2,811	5,344	6,260	6,345	6,098	6,239
Male Householder	7,128	1,098	764	735	727	693	618	612
Female Householder	15,032	957	1,240	1,664	1,654	1,802	1,503	1,391
Nonfamily Households								
Total	**47,099**	**3,294**	**4,559**	**3,606**	**2,683**	**2,367**	**2,196**	**2,842**
Male Householder	22,738	1,790	2,632	2,137	1,677	1,420	1,250	1,492
Female Householder	24,361	1,504	1,926	1,469	1,006	946	947	1,349

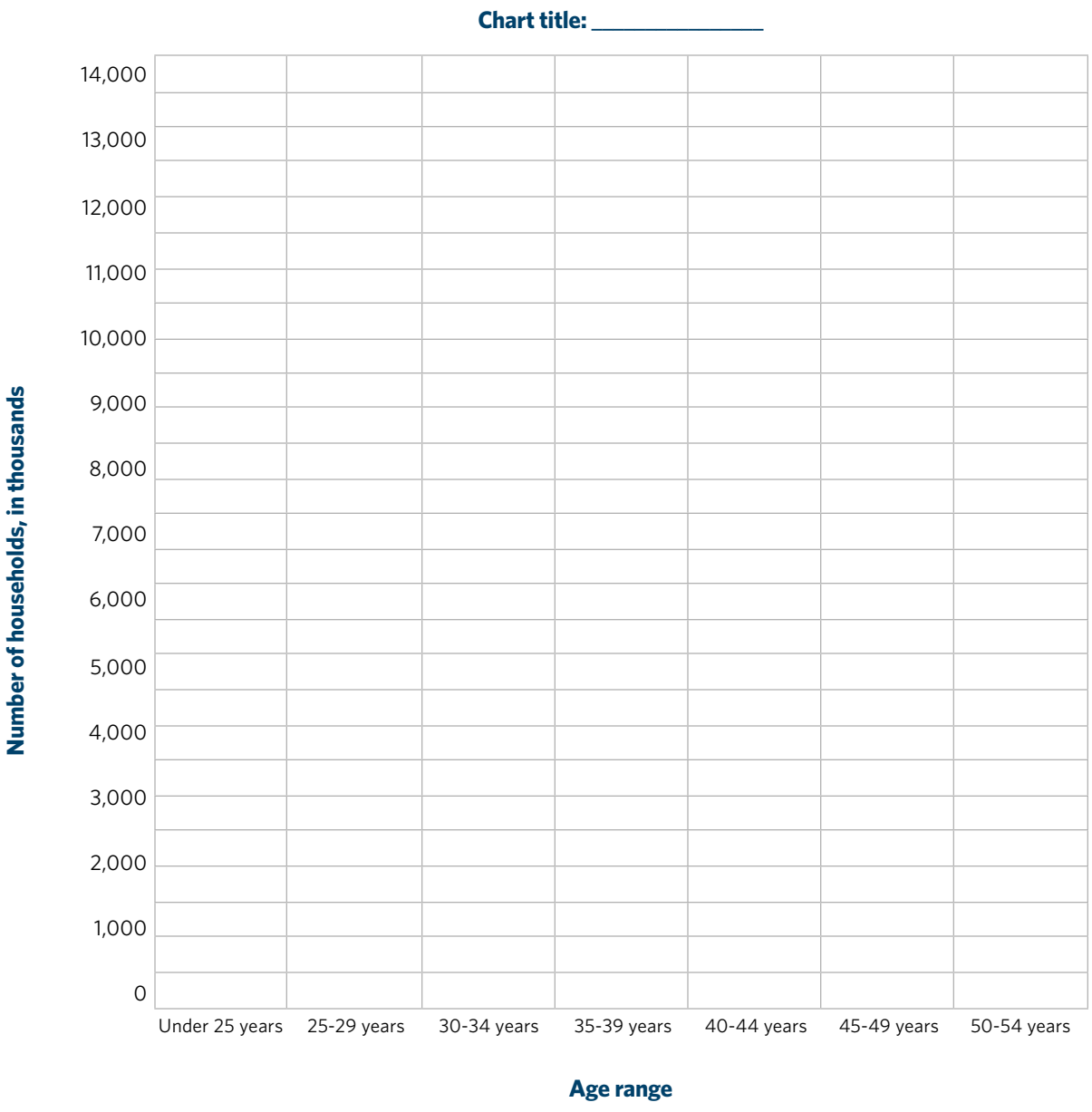
Data adapted from: *www.census.gov/data/tables/2023/demo/families/cps-2023.html*

To view the data, go to the link above and click on the XLS link for Table H2.

Rounding was used in calculating these estimates; some of the table totals may appear off by one.

Item 2: Histogram Templates

Histogram A



Item 2: Histogram Templates (Continued)

Histogram B

Chart title: _____

