

College Majors

Here is the distribution of bachelor's degrees awarded in 2010, according to http://nces.ed.gov/programs/digest/d11/tables/dt11_286.asp:

1. What are the individuals and the variables?
2. Make a well-labeled bar graph to display the data for both 2011 and 2014. Describe what you see.
3. Compare and contrast the distributions of bachelor degrees between the two years.

Major	Number of degrees	Percent of degrees
Business	358,293	21.7
Social sciences/history	172,780	10.5
Health professions	129,634	7.9
Education	101,265	6.1
Psychology	97,216	5.9
Visual and performing arts	91,802	5.6
Biological and biomedical sciences	86,400	5.2
Communication and related programs	81,266	4.9
Engineering	72,654	4.4
English language and literature	53,231	3.2
Other	405,473	24.6
Total	1,650,014	100.0

And in 2014:

Major	Number of degrees	Percent of degrees
Business	360,887	19.6
Social sciences/history	177,767	9.7
Health professions	181,149	9.8
Education	104,698	5.7
Psychology	114,446	6.2
Visual and performing arts	97,779	5.3
Biological and biomedical sciences	100,397	5.5
Communication and related programs	84,818	4.6
Engineering	85,897	4.7
English language and literature	52,401	2.8
Other	480,142	26.1
Total	1,840,381	100.0

Spam Email spam is the curse of the Internet. Here is a compilation of the most common types of spam.

<u>Type of spam</u>	<u>Percent</u>
Adult	19
Financial	20
Health	7
Internet	7
Leisure	6
Products	25
Scams	9
Other	??

- a) What percent of spam would fall in the "Other" category?
- b) Display these data with a bar graph. Be sure to label your axes and title your graph.

Comparing Car Colors Favorite vehicle color may differ among types of vehicles. Here are data on the most popular colors in 2008 for luxury cars and for SUV's, trucks, and vans.

Color	Luxury Cars (%)	SUVs, trucks, & vans (%)
Black	22	13
Silver	18	16
White Pearl	14	1
Gray	12	13
White	11	25
Blue	7	10
Red	7	11
Yellow/Gold	6	1
Green	3	4
Beige/Brown	2	6

- Make a graph to compare colors by vehicle type.
- Write a few sentences describing what you see in the distribution.

Middle-Class Income

In a recent survey, young adults (aged 19-25) were asked, "What do you think are the chances you will have much more than a middle-class income at age 30?" The table shown below shows the responses.

Opinion	Female	Male	Total
Almost no chance	96	98	194
Some chance but probably not	426	286	712
A 50-50 chance	696	720	1416
A good chance	663	758	1421
Almost certain	486	597	1083
Total	2367	2459	4826

- What percent of females believe that they have a good chance or better of having more than a middle-class income at age 30?
- What percent of males believe that they have a good chance or better of having more than a middle-class income at age 30?
- Do you see any evidence of an association between gender and the chances of having more than a middle-class income at age 30 from these young adults in this survey? Explain.