

Graphic Presentation of Data for Grantwriters: Why, How, and Pitfalls to Avoid

November 1, 2019, PSGA Panorama

- We will examine some of the choices that graphics professionals make when presenting data.
- This workshop will demonstrate the power of using charts, maps, tables, and diagrams to tell your organization's story.
- Understanding these choices will help you become as strategic, articulate, and ethical with the content and format of graphic presentations of data as you are with words.

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RESOURCES:

The Visual Display of Quantitative Information, by Edward R. Tufte, 1973

Information about all four of his books and the one-day courses he gives around the country:

<https://www.edwardtufte.com/tufte/>

How to Lie with Statistics, by Darrell Huff, 1954

Disclaimer: This book is sexist and racist, so Emily recommends reading it critically as a reminder of the sexism and racism of the 1950s, in addition to using it for a quick education in manipulation of statistics.

Template: Spreadsheet for reporting to funders budget-to-actual

Email Emily if you want a copy.

Dancing Past the Recession

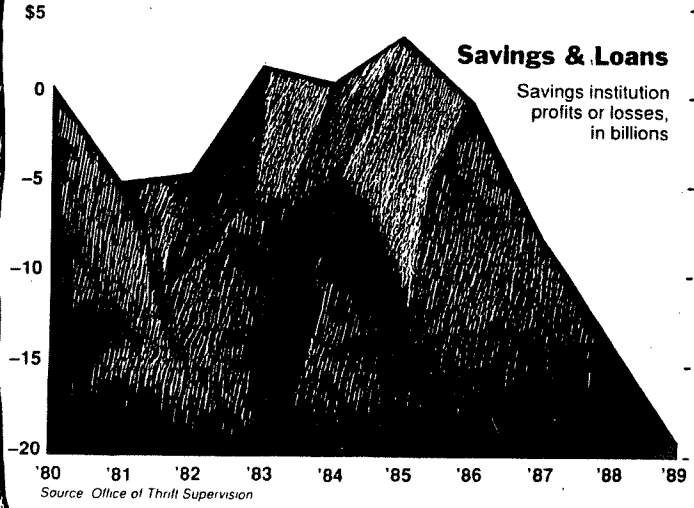
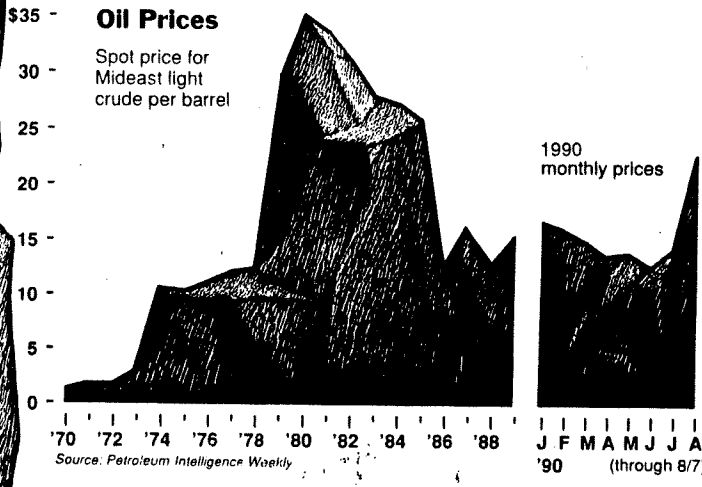
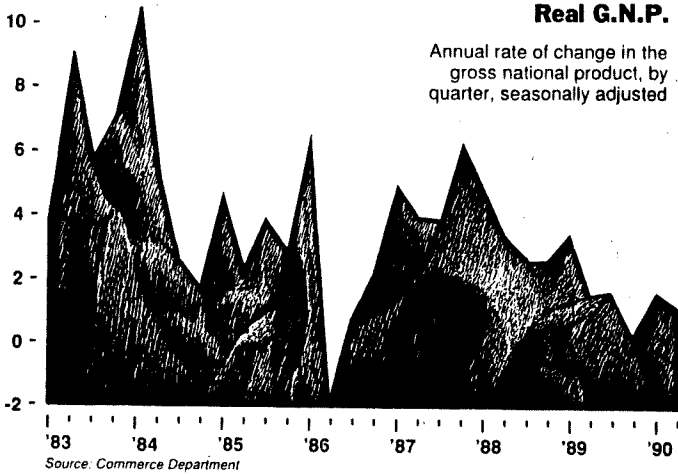
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Ten Things Every Journalist Should Know About Math

1. Definition of percent.

Percent means per hundred.

Ten percent means ten per hundred.

If you leave a 10% tip, you've given the server a dime per each \$1 of food.

$$10\% = \frac{10}{100} = .10$$

2. How to calculate a percent.

Of 350,000 residents of Buffalo, 300,000 say they "worship" Taylor Buckley.

What percent is that?

$$\frac{\text{part}}{\text{whole}} \times 100\% = \text{percent that the part is of the whole}$$

$$\frac{300,000}{350,000} \times 100\% = .86 \times 100\% = 86\%$$

3. How to change a percent into a regular number.

Among Health/Works' 500 members, 40% work out every day.

How many is that?

$$\text{whole} \times \text{percent} = \text{part}$$

$$500 \times 40\% = 500 \times 0.40 = 200$$

4. How to calculate a percent change.

FYI: Excel multiplies by 100 when changing a value to a percent (therefore don't multiply by 100%).

$$\frac{(\text{New Value} - \text{Old Value})}{\text{Old Value}} \times 100\% = \text{Percent Change}$$

5. There is a difference between a percent and a percentage point.

A town raises its sales tax rate from 1% to 2%.

- ♦ The tax rate has increased one percentage point.
- ♦ The tax one pays on any given purchase has increased 100%, or doubled.

It is a common error for journalists in a case like this to write that the tax rate increased 1% when in fact it rose one percentage point.

*In reporting on polls, it is incorrect to say "the margin of error is 3 percent."
Say: "The margin of error is three percentage points."*

6. Do not average percentages.

70% of the men in a group like *Seinfeld*. 90% of the women do.

Does that mean 80% of everyone in the group likes *Seinfeld*?

Answer: Only if the group contains equal numbers of men and women.

Generally, averaging percentages is a bad idea.

7. Never round a number more than once.

Round 10.45 to the nearest whole number.

RIGHT

10.45

10

WRONG

10.45

10.5

11

8. "Margin" has to do with the difference between two numbers.

"Ratio" deals with proportion.

If the incumbent beats the challenger 200 to 100, then:

- The incumbent beat challenger by a margin of 100 votes (200-100 = 100)
- The incumbent beat challenger by a ratio of 2 to 1 (200/100 = 2/1)

9. There are three types of averages:

1. The **arithmetic mean**.

You add all the items together and divide by the number of items.

2. The **median**.

You list all the items by size. The median is halfway down the list.

3. The **mode**.

The most frequently occurring item.

Example: In the list of men's shoe sizes below, 9 is the mode.

Shoe sizes: 6, 8, 8, 8, 9, 9, 9, 9, 9, 10, 10, 12, 15

10. How to convert units of measurement.

This is simply a process of multiplying by 1.

You multiply by a fraction in which the top and bottom are equal.

Put the units you want to get rid of on the bottom and the units you desire on top.

Example 1: How many inches in a mile, if 1 mile = 1,760 yards and 1 yard = 36 inches?

$$\text{Answer: } 1 \text{ mile} \times \frac{1760 \text{ yard}}{1 \text{ mile}} \times \frac{36 \text{ inches}}{1 \text{ yard}} = 63,360 \text{ inches}$$

Example 2: How many miles in 126,720 inches

$$\text{Answer: } 126,720 \text{ inches} \times \frac{1 \text{ yard}}{36 \text{ inches}} \times \frac{1 \text{ mile}}{1760 \text{ yards}} = 2 \text{ miles}$$

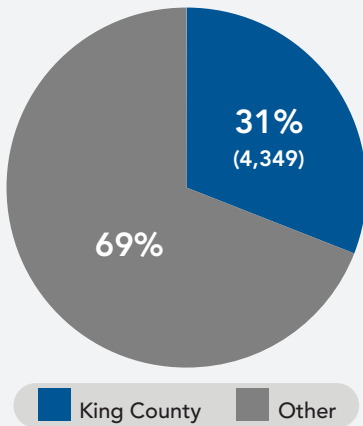
By Eric D. Randall
Reporter, USA Today



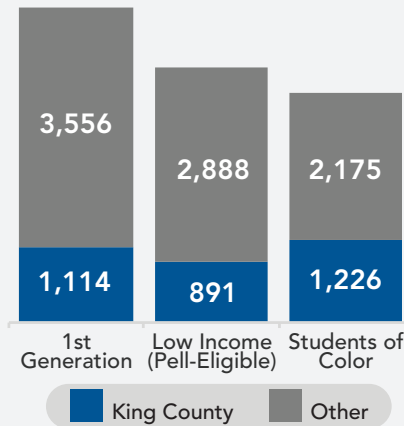
WWU & KING COUNTY A DYNAMIC RELATIONSHIP

Western Washington University prides itself on serving every corner of the state of Washington. Our deeply embedded, interactive presence in King County includes Western students, alumni, donors, programs, leadership, WWU-trained teachers as well as King County-based employees.

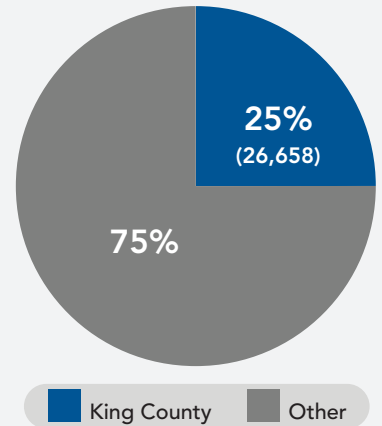
ALL WWU UNDERGRADS



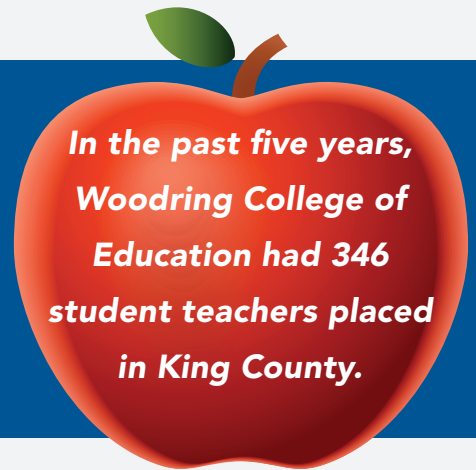
UNDERSERVED STUDENTS AT WWU



WWU ACTIVE ALUMNI



Giovanni Milan ('14) is a Filipino-American from Seattle who, influenced by his experience with Western's Student Outreach Services, is planning a life in higher education administration. "At a critical time, they provided me with career insight and encouraged me not to sell myself short. The road to higher education for some of us is tough in terms of building a community and sticking with college. SOS offers advice, guidance and an open door. They're there in all senses of the word 'support.'"



In the past five years, Woodring College of Education had 346 student teachers placed in King County.



In the past five years, Western, which offers certification for teachers, principals, superintendents and other educators, has graduated 246 students from our satellite location in North Seattle Community College.

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TOP KING COUNTY EMPLOYERS OF WESTERN GRADUATES INCLUDE:

