

Graphics Do's and Don'ts

Here are some of the most common things
to look out for when making a chart or diagram.

Visuals Department
THE WALL STREET JOURNAL.

Steps to effective charts*



Research from respected sources, for example: World Bank, IMF, U.S. Census Bureau, Eurostat, etc.

Use an independent source when working on a dispute topic. For example, don't use McDonald's as a source on a graphic showing market share of the fast food industry, instead use Euromonitor or a similar source.

If required, make sure to obtain permission from the source to use the data.



Choose the appropriate chart axis that better captures the trend.

Label the graphic by writing a clear headline, description, legends and sources that help the reader get a quick understanding of the point you are trying to make.

Use color and typography to accentuate the key message.



Identify your key point.

Choose the best data series to illustrate your point.

Edit, filter and simplify the raw data. Make a decision on what's the best form to get your point across, e.g. absolute values vs. percentage change.

Choose the right type of graphic to present your data, e.g. a line to show a trend or a bar to show discrete quantities.

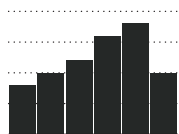


Check the plotted data against the source material.

Look at your graphic from a reader's perspective and evaluate whether your graphics makes sense.

When possible, verify your data against other sources.

What type of chart should I use?



VERTICAL BARS

Most useful in depicting discrete quantities over a period of time

Net income, revenue, earnings per share, number of product sales, stock trading value, percentage change in GDP



LINES

Best to display continuous data series over a period of time

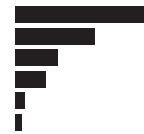
Stock prices, commodity prices, bond yields, index values, currency rates, unemployment, CPI, performance of more than one index



PIES

Mainly use to illustrate portions of a whole

Breakdown of a company's revenue by segment or region, share of companies in the same market, distribution of wealth by age group



HORIZONTAL BARS

Most useful when ranking items (e.g. companies, countries, cities) by the same characteristics

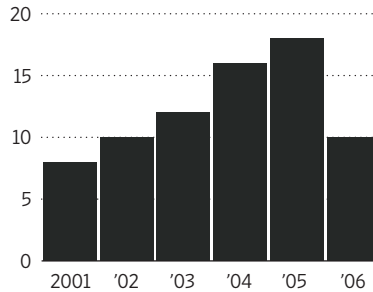
Sales of different companies, GDP of different countries, number of voters by state

*From The Wall Street Journal Guide to Information Graphics

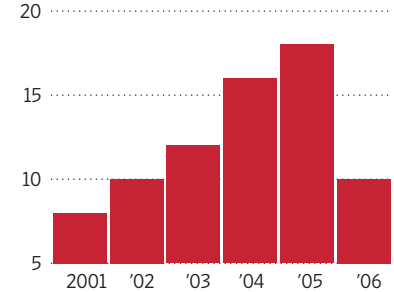
Bar charts must always have a zero baseline.

Why: Look at the difference between the "Do" and "Don't" charts. Note how the proportion is distorted when the bars don't go to zero.

Do

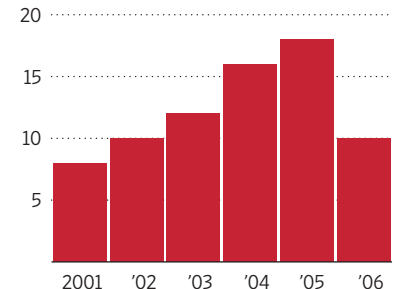
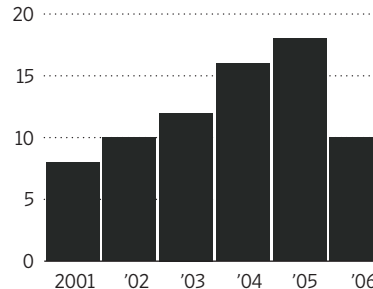


Don't



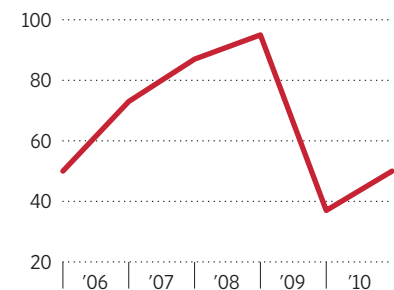
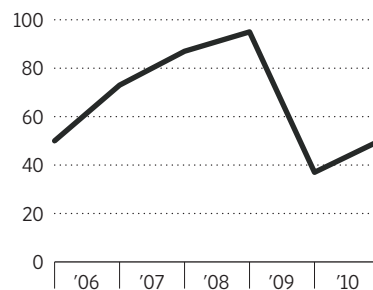
The bottom increment in a chart should always be labeled.

Why: The bottom increment sets the baseline for the other numbers.



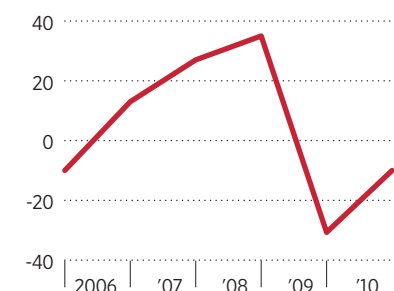
Line charts that come within an increment or two of zero should go to zero.

Why: It's always best to go to zero when you can to properly represent the size of the change. When we don't take a line chart to zero, it's because the change would look so tiny that it would be hard to see the trend.



The zero point should always be distinct from the other increments.

Why: Zero needs to stand out as a dividing line between positive and negative numbers. When zero is at the bottom of the chart, the solid line distinguishes between zero-based and non-zero based charts.



Sometimes we split a deck over two charts in order to weave them together in a single narrative. Use ellipsis at the end of the first phrase and the beginning of the next.

Why: The ellipses signal to the reader that the text goes into a worm hole and comes out the other side.

Muted growth could restrain exports...

...and a backlog of foreclosed homes remains

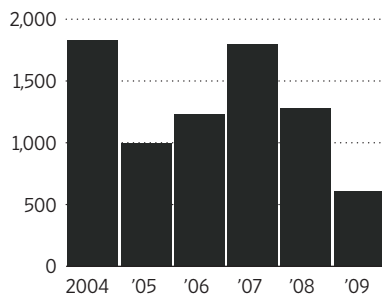
Muted growth could restrain exports...

And a backlog of foreclosed homes remains

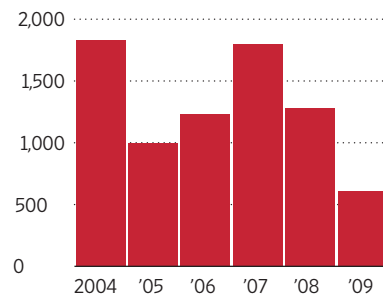
Whole numbers in a vertical sequence should always align flush right. Decimal numbers should align to the decimal point.

Why: This makes the numbers more orderly and easy to read.

Do



Don't



Use common, natural increments in your scales. Avoid awkward increments. Also, make sure the interval divides down to zero.

Why: It's much easier to follow the scale when you use common increments.



EXAMPLES

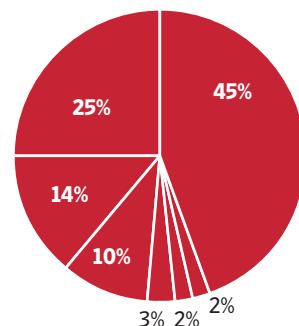
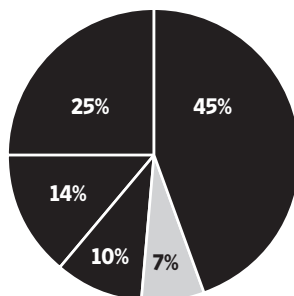
0, 1, 2, 3, 4, 5
 0, 2, 4, 6, 8, 10
 0, 10, 20, 30, 40, 50
 0, 25, 50, 75, 100
 0, 0.25, 0.50, 0.75, 1.00



EXAMPLES

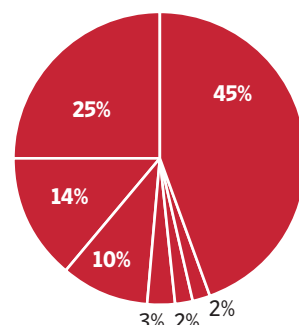
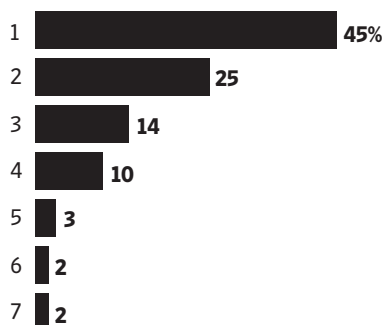
0, 3, 6, 9, 12, 15
 0, 4, 8, 12, 16, 20
 0, 8, 16, 24, 32, 40
 0, 15, 30, 45, 60
 0, 0.4, 0.8, 1.2, 1.6

Pie charts should have no more than five slices. If necessary, combine small categories into "other," or...



...use a stacked or segmented bar instead.

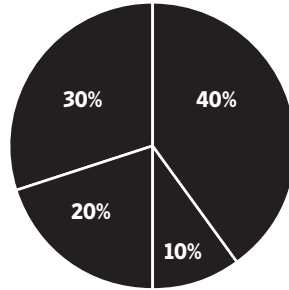
Why: With more than five slices, pie charts become crowded and the slices hard to compare.



Do

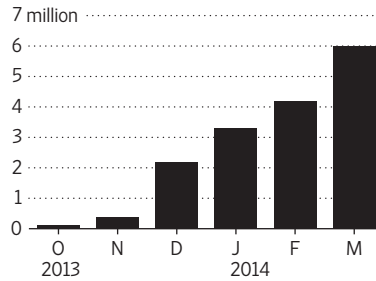
When building a chart, the largest slice goes on the top right. Place the rest of the slices counterclockwise large to small.

Why: This creates a hierarchy, with the largest components on the top and the smallest at the bottom. (U.S. political charts are an exception: Democrats are on the top left and Republicans on the top right.)

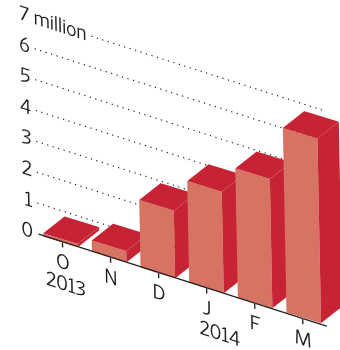
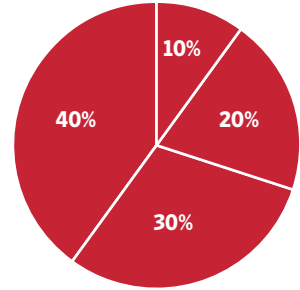


Do not tilt or extrude charts for stylistic effect.

Why: It distorts the data and makes it harder to read. It creates a dated look.



Don't



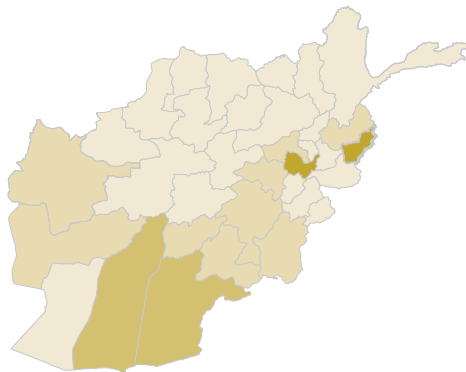
Choropleth (shaded) maps are preferred for densities or rates. Proportional circles should represent raw numbers.

Why: If you use a shaded map to represent raw numbers, it can de-emphasize small areas with big numbers and overemphasize large areas with small numbers.

Proportional circles allow you to fairly compare numbers, regardless of the size of the area containing them.

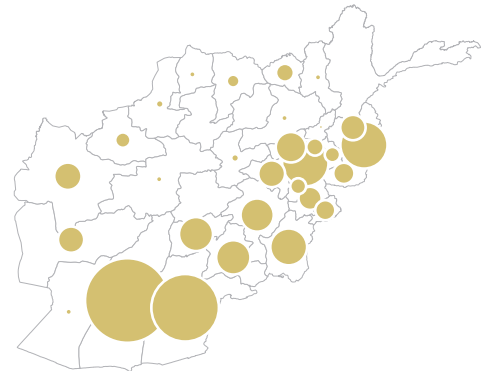
Shaded maps work well for rates and densities because the data already takes into account the size of the population or area.

Shades



Per capita income by province

Proportional Circles



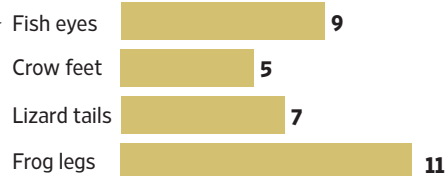
Number of IED attacks by province

Consistency in labeling style

Why: Details like this provide a polished, professional product.

Labels are in sentence case. (Only first letter of first word is up.)

Gross Calculations



Headlines are title case (first letters of all words up, except prepositions such as on, for and to, in most cases.)

Do

In news stories, icons and pictograms used to designate categories or numbers of items should be easily recognizable one-dimensional symbolic silhouettes.

Why: Pictograms and icons should be easy to read and should look consistent across our stories.



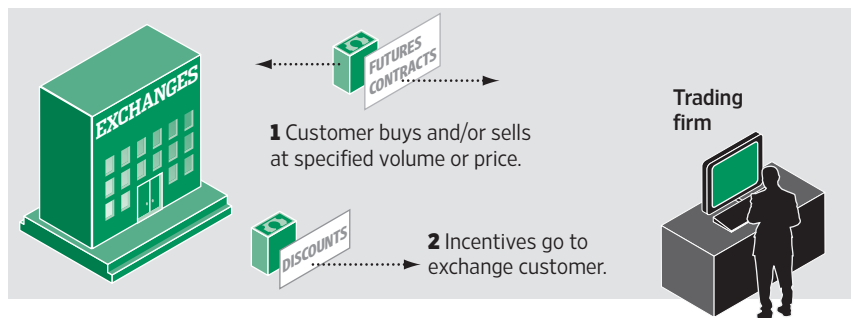
Don't



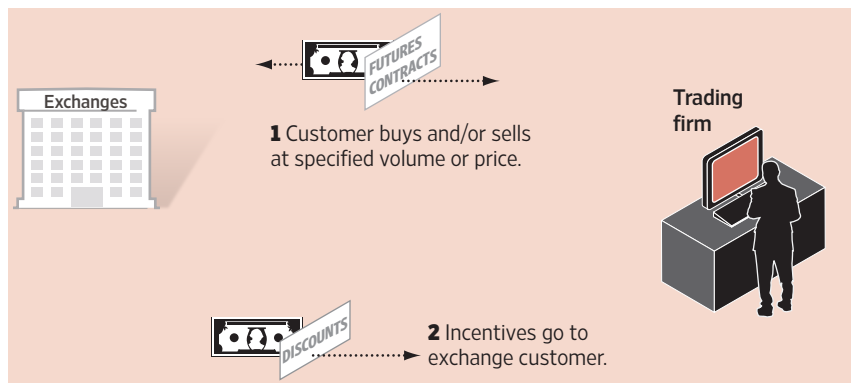
When assembling a diagram from pre-made images, all the elements must be in the same style and perspective.

Why: Mixing styles and perspectives looks jarring and unprofessional.

Do



Don't



For source guidelines and more detailed guidance, consult the Graphics Best Practices wiki:

<https://wiki.dowjones.net/display/WSJNews/Best+Practices>