

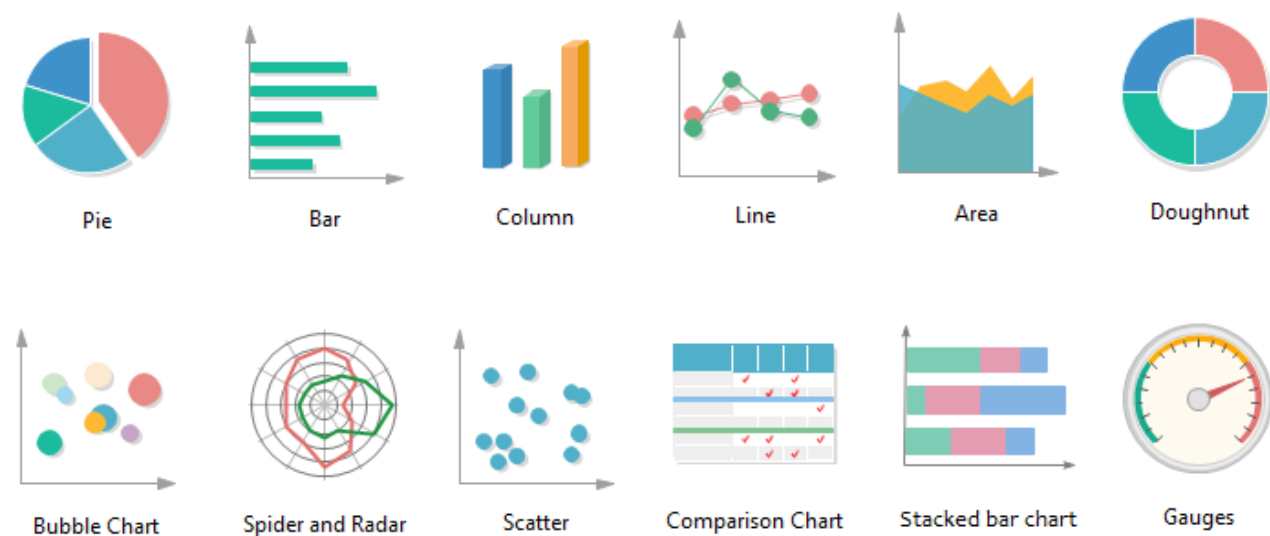
# Matplotlib

By: Nourah Almutlag

## مكتبة Matplotlib

هي مكتبة تستخدم في مرحلة عرض البيانات (Data Visualization) لإنشاء رسوم بيانية تفاعلية (static, animated, and interactive visualizations) بلغة Python وتعتبر مكتبة خاصة بالرسومات ثنائية الأبعاد.

### أنواع الرسوم البيانية:



*How to Choose the Right Chart - A Complete Chart Comparison - Edraw*

## تنصيب مكتبة Matplotlib

عن طريق كتابة الأمر التالي:

```
!pip3 install matplotlib
```

## أمثلة لبعض الرسومات المضللة (Misleading Charts)

### USA Today

The y-axis doesn't start from zero, giving an invalid indicator about the amount of change during months.

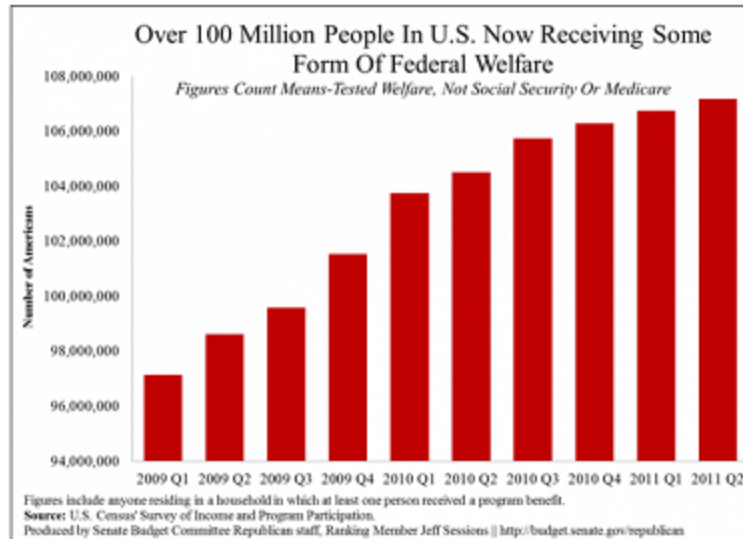
#### THE BLOG

### Over 100 Million Now Receiving Federal Welfare

2:40 PM, AUG 8, 2012 • BY DANIEL HALPER

SHARE PAGE PRINT LARGER TEXT SMALLER TEXT PLANTS

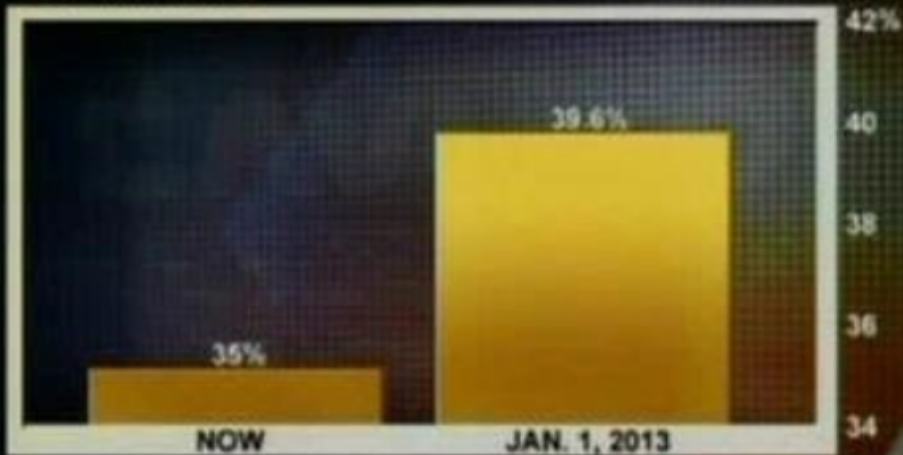
A new chart set to be released later today by the Republican side of the Senate Budget Committee details a startling statistic: "Over 100 Million People in U.S. Now Receiving Some Form Of Federal Welfare."



### Fox News

# IF BUSH TAX CUTS EXPIRE

TOP TAX RATE



8:01p ET

**FOX**  
BUSINESS

TOP STORIES

TECHNOLOGY

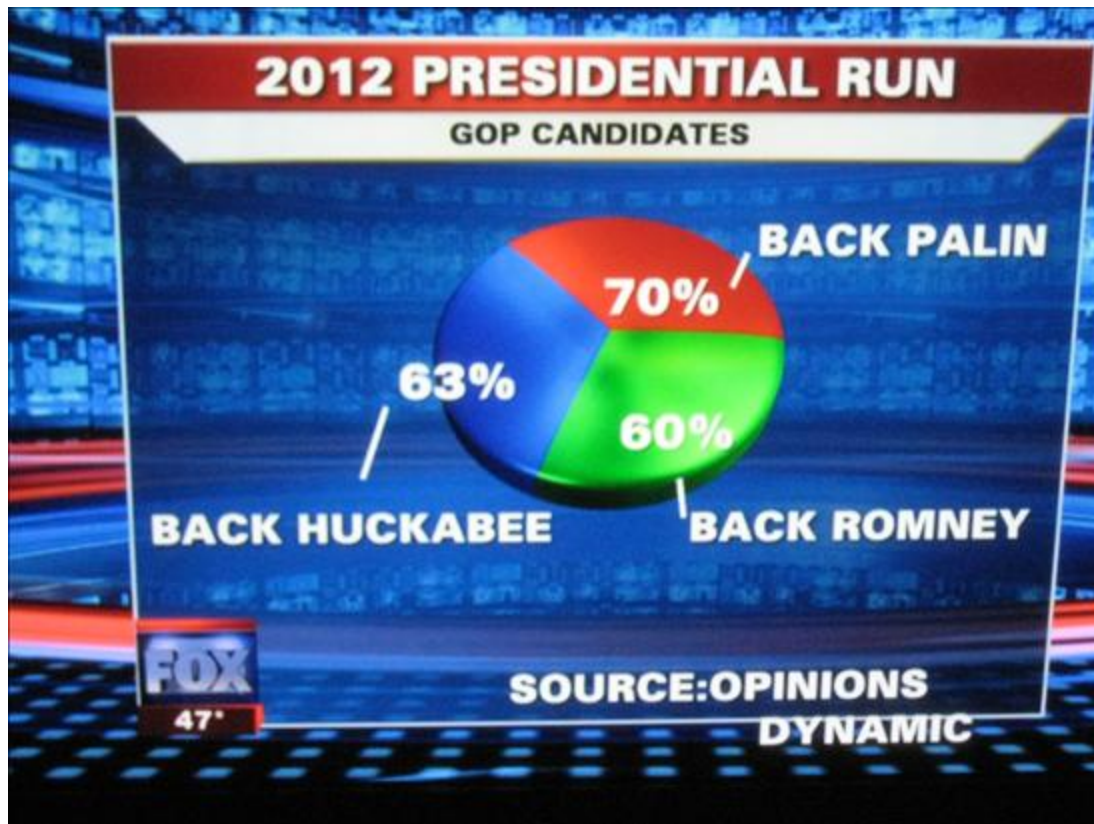
CONSUMER

WITH THE JUSTICE DEPARTMENT AND ACQUIRES FULL T

DOW 13008.68 ▼ 64.33

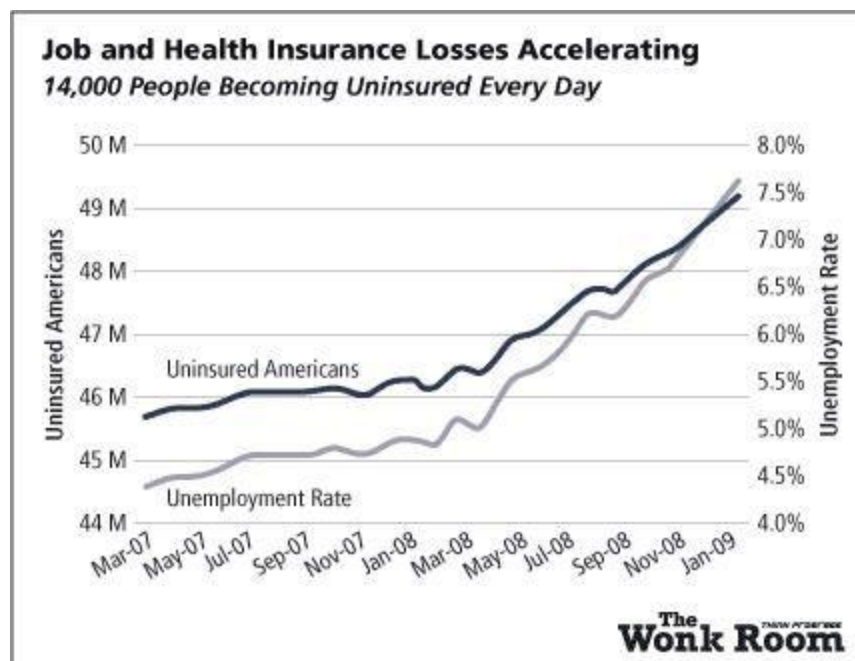
S&P 1379.32 ▼ 5.98

NASDAQ 2939.52 ▼ 6.32



If you calculate the categories in this pie chart it will be more than 100%

## The Wonk Room



There are two axes for y with different scales.

## المصادر:

- <https://matplotlib.org/>
- <https://matplotlib.org/cheatsheets/>
- <https://matplotlib.org/cheatsheets/cheatsheets.pdf>
- [https://matplotlib.org/stable/api/markers\\_api.html](https://matplotlib.org/stable/api/markers_api.html)
- [https://matplotlib.org/stable/api/\\_as\\_gen/matplotlib.pyplot.legend.html](https://matplotlib.org/stable/api/_as_gen/matplotlib.pyplot.legend.html)
- [https://matplotlib.org/stable/gallery/color/named\\_colors.html](https://matplotlib.org/stable/gallery/color/named_colors.html)
- <https://matplotlib.org/stable/tutorials/colors/colors.html>
- [https://matplotlib.org/2.1.1/api/\\_as\\_gen/matplotlib.pyplot.plot.html](https://matplotlib.org/2.1.1/api/_as_gen/matplotlib.pyplot.plot.html)
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- <https://www.datapine.com/blog/misleading-data-visualization-examples/>
- <https://chen5595.cems.umn.edu/SameStats-DifferentGraphs.pdf>
- <https://www.statisticshowto.com/probability-and-statistics/descriptive-statistics/misleading-graphs/>