



1st International PROFILES Conference in Berlin 2012



Analyzing PROFILES data using the R-Commander

Thomas Mühlhoff & Vincent Schneider





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What is R?

- is a statistical programming language
- is a free open source software for analyzing data
- More statistical analysing possibilities e.g. Item Response Theory (IRT), Structural Equation Model
- an alternative to SPSS, SAS

R-Interfaces:

- R GUI
- R Commander ← (!)
- R Studio

R GUI Interface

R Console



The screenshot displays the R GUI interface with four main windows:

- R Console:** Shows the R version (2.10.0), copyright information, and instructions for using R. It also displays the execution of the `test` command, which results in an error: `Fehler: Objekt 'test' nicht gefunden`. The `curve` function is also used: `curve(dnorm, -3, 3)`.
- R Help:** Shows the help page for the `curve` function, detailing its arguments: `expr`, `x`, `from/to`, `n`, `add`, `xlim`, and `type`.
- R Editor:** Shows the source code for the `test` command and the `curve` function call.
- R Graphics:** Shows a plot of a normal distribution curve, titled `R Graphics: Device 2 (ACTIVE)`. The x-axis is labeled `x` and ranges from -3 to 3. The y-axis is labeled `dnorm(x)` and ranges from 0.0 to 0.4.

R help



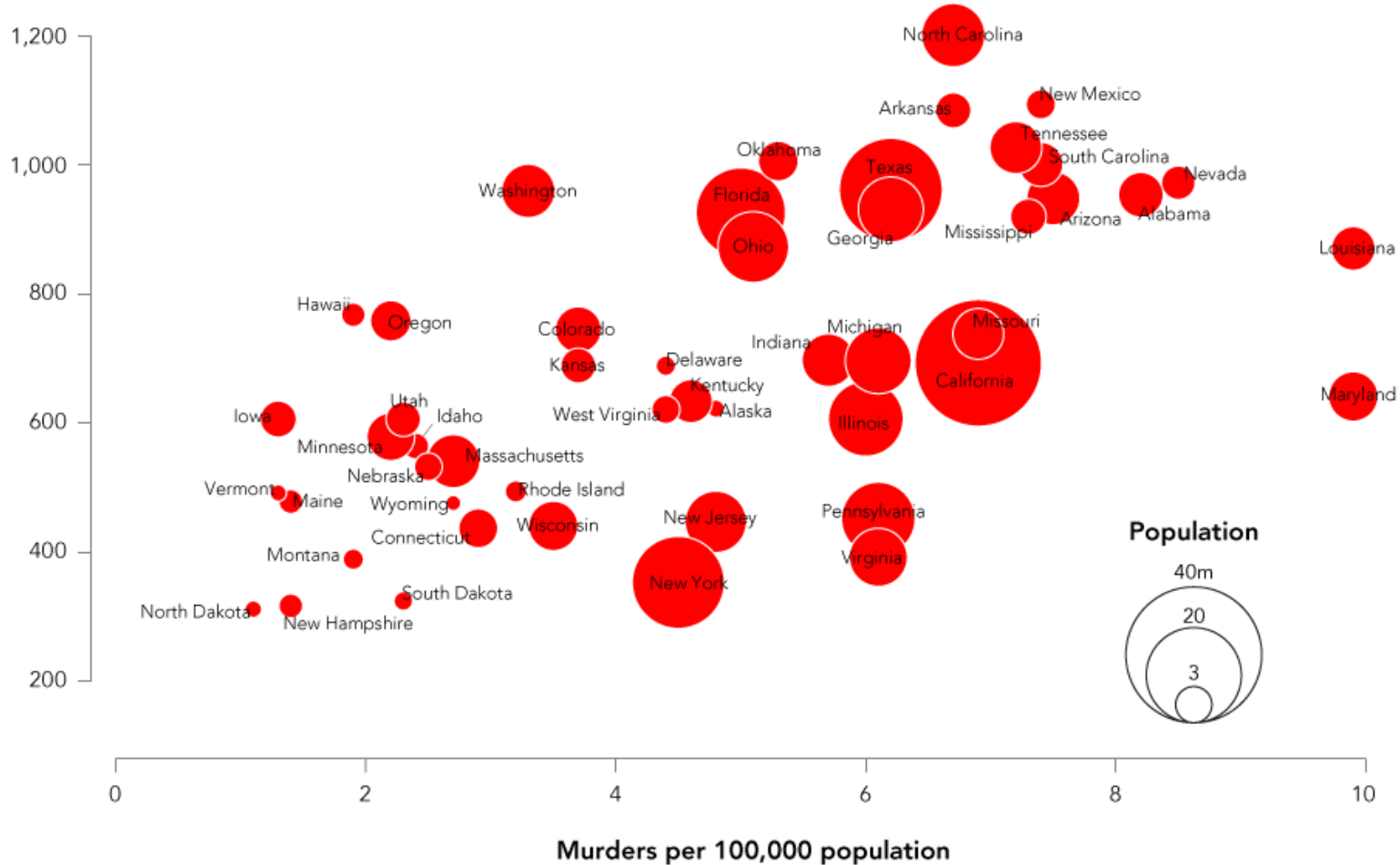
R Editor



Graphics



Burglaries per 100,000 population



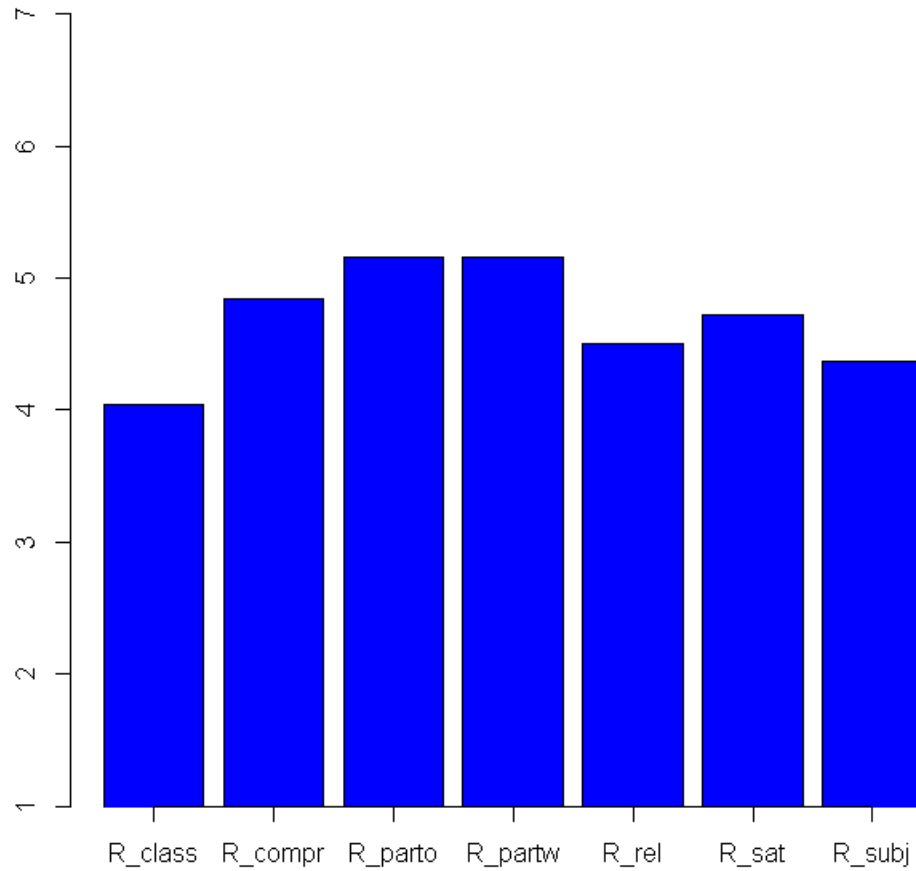
<http://flowingdata.com/2010/11/23/how-to-make-bubble-charts/>



facebook

<http://tinyurl.com/4u27355>

Graphics we will create



Interface of R-Commander

R Commander

File Edit Data Statistics Graphs Models Distributions Tools Help

Data

- New data set...
- Load data set...
- Merge data sets...
- Import data
- Data in packages
- Active data set
- Manage variables in active data set

View data set Model: <No active model>

Output Window

Submit

Messages

```
[2] WARNING: The Windows version of the R Commander works best under RGui with the single-document interface (SDI); see ?Commander.
```