**Data for Editors**

**2015**

**What skills do reporters need?**

Minimum:

* Have a “data state of mind”
* Comfortable in spreadsheets--basic formulas & functions, Pivot Tables, filtering, importing
* Numeracy—be comfortable using numbers in stories, doing basic math, understand simple statistical concepts
* Be able to pull data out of a PDF
* Be able to make some simple graphics for internal use and possibly to go online
* Able to request database-friendly formatted data via public records laws

Better:

* Make data visualizations or simple interactive maps
* Proficient and very comfortable in spreadsheets
* Able to clean data

More advanced:

* Able to analyze data in a database manager (such as Access or SQLite)
* Able to scrape data from a web page
* Analyze data using GIS software

Even more advanced:

* Able to do statistical analysis (i.e. regression)
* Ability to write scripts (using language such as Python) to clean or scrape data

**What software should reporters learn?**

Minimum:

* Excel or Google spreadsheets
* Tabula, CometDocs, ABBY or other software for pulling data out of PDFs
* Simple online charting software like Google Charts, Google Fusion Tables or DataWrapper

Intermediate:

* Cleaning data -- OpenRefine (free)
* Visualization software--Tableau Public (free)

Advanced:

* Database managers --Microsoft Access ($) or SQLite (free)
* Online mapping -- Google Fusion Tables or CartoDB or Tableau Public (all free)
* Web scraping (there are various tools for this, usually free)
* GIS software, such as ArcMap ($) or QGIS (free)
* Statistical software, such as SPSS ($) or R (free)
* Scripting language, such as Python (free)