

Statistics Education Resources

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Online Resources for Teaching Statistics

Website with materials related to today's session: <https://mdbeckman.github.io/PSU-Grad-Orientation/>

General Resources

Guidelines for Assessment and Instruction in Statistics Education (GAISE)

2016 GAISE College Report: <http://www.amstat.org/education/gaise>

Recommended best practices for Statistics Education. Short description of 6 recommendations accompanied by concrete implementation strategies, sample resources, references, etc.

Consortium for the Advancement of Undergraduate Statistics Education (CAUSE)

<http://www.causeweb.org>

The resources tab provides lots of useful materials sorted by topic, such as applets, cartoons, powerpoint slides, tutorials, data, suggested interactive activities, and more.

ASA's Collection of Useful Links

<https://www.amstat.org/education/resourcesforundergradteachers.cfm>

Useful links for undergraduate teachers of statistics. Clicking on "Useful Web Sites for Teachers" will bring up many more useful links.

Statistics Education Blogs

- Teaching with Simulation-Based Inference: <https://www.causeweb.org/sbi/>
- Teach Data Science: <https://teachdatascience.com/intro/>
- Ask Good Questions: <https://askgoodquestions.blog/>

Data Repositories

Chance News Wiki:

http://test.causeweb.org/wiki/chance/index.php/Main_Page

Reviews current stories in the news that involve probability or statistical concepts.

Chance Magazine's "Taking a Chance in the Classroom"

<http://chance.amstat.org/category/columns/taking-a-chance-in-the-classroom/>

Datasets and corresponding papers with suggestions classroom use. ASA login required.

Journal of Statistics Education Data Archive

http://www.amstat.org/publications/jse/jse_data_archive.htm

More data, although not sorted by statistical topic so a bit harder to find appropriate data.

Robin Lock's Website:

<http://it.stlawu.edu/~rlock/maa51/data.html>

Links to other data sources

Data and Story Library (DASL)

<http://lib.stat.cmu.edu/DASL/>

Lots of real data, searchable by real-world topic or statistical method.

StatLib – Datasets Archive

<http://lib.stat.cmu.edu/datasets/>

One of the original sources for archived data

Lots more...

<https://data.cityofnewyork.us/>

<https://github.com/fivethirtyeight/data>

<http://www.datasciencecentral.com/profiles/blogs/great-github-list-of-public-data-sets>

<http://www.icpsr.umich.edu/icpsrweb/ICPSR/>

<https://www.springboard.com/blog/free-public-data-sets-data-science-project/>

<https://www.dataquest.io/blog/free-datasets-for-projects/>

Even more... (link)

Applets

Lock⁵ StatKey

<http://www.lock5stat.com/statkey>

Sampling distributions, bootstrapping, randomization tests, theoretical distribution “tables”

onlinestatbook.com

http://onlinestatbook.com/stat_sim/index.html

Lots of applets, all searchable by statistical topic.

Rossman and Chance Applets

<http://www.rossmanchance.com/applets/>

Website for applets, many of which coincide with interactive activities.