

Statistics and the Political Sociology of Quantification



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In 1951, mathematical statistician Samuel S. Wilks [anticipated](#) that “statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write.” Like citizenship and mass education, statistics as we know them today are first and foremost the instruments of statesmen, and a technique of statecraft.

This course examines the political uses of statistics (and, more generally, of numbers) by political authorities. It does so by going through case studies of how quantification – the operation of ‘coming up with numbers’ – is used to serve state interests and to call for political action.

The course begins with a 6-week practical workshop that covers basic quantitative methods with a spreadsheet editor, and with professional-grade statistical software. It then moves to the study of how quantified information feeds into politics, and ends with student presentations on the role of quantification in their own research.

Is this a statistics course? Yes, but only partly. The first part of the course fits that description: it covers basic computing, introductory statistics, and quantitative research design. However, the second part is different, as it tries to offer a sociological inquiry of the use of quantitative information in the context of political decision-making.

Do I need to know statistics to take the course? No — no previous knowledge of either descriptive or inferential statistics is required for taking this course, although motivation to learn about it is crucial to the rest of the course.

How much statistics will I know by the end of the course? Some, although not enough to independently conduct quantitative research. You will be pointed to the resources that you will need to learn more about quantitative methods.

Hardware and software requirements: You will need a fully functional laptop to follow this course, i.e. a laptop (1) with sufficient disk space and RAM, (2) running a recent version of either Linux, macOS or Windows, and (3) on which you have admin rights and can install software. Additionally, you will also need a (free) Google account to use Google Drive and Sheets.

Please ask admin if you need the School to lend you a laptop, which might be an option.

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Similar courses

The part of this course that focuses on the study of quantification covers the same kind of material and research questions as the courses listed below.

[Carruthers, Bruce](#). 2011. *The Sociology of Rational Decision-Making: Trust in Numbers*. Course taught at Northwestern University.

[Espeland, Wendy](#). 2012. *Numbers, Identity and Modernity: How Calculation Shapes Who We Are*. Course taught at Northwestern University.

[Jerven, Morten](#). 2017. *Ruling the World by Numbers: Knowledge and Politics in International Development*. Course taught at the Norwegian University of Life Sciences [[slides](#)].

[Rocco, Philip](#). 2017. *Numbers, Policy, and Democracy*. Course taught at Marquette University.

Acknowledgements

This syllabus contains some ideas and references that were discussed with, or provided by, [Philippe Bonditti](#), [Brendan Coolsaet](#), [Janis Grzybowski](#), and other colleagues at [ESPOL](#) in Lille.

I also owe some of my knowledge of the scientific literature on quantification to [Émilien Ruiz](#), with whom we organised a [research seminar on that topic](#) while I was working on this syllabus, and some of my knowledge of open data to [Joël Gombin](#) and [Samuel Goëta](#), with whom we taught the ‘[Open Data for Urban Research](#)’ course at Sciences Po in Paris.

Some further inspiration for this course has come from various quantitative methods courses taught at other universities. The most recent component of the course, which uses spreadsheet software, was partly inspired by student feedback on earlier versions of the course, and by the ‘[Comparative Public Administration](#)’ course taught by Andrew Heiss at Georgia State University.

Course outline

Part 1 of the course is basically a crash course in statistics for social scientists.

Part 2 covers the most essential components of a political sociology of quantification, using some of the [selected readings](#) listed in the last part of this syllabus.

It closes with **student presentations**, i.e. 10-to-12-minute talks in which groups of 3–5 students will present on **the production and use of quantified information, i.e. numbers and their derived products, in a policy domain of their choice** (e.g. fiscal governance, nutrition policy, conflict resolution). The aim of the presentation is to answer some of the research questions raised in Espeland and Stevens (2008) — who produces/uses what kind of quantified information in the studied domain, how, with what intentions, with what success, and why?

1. Introduction — Numbers as Power/Knowledge

Part 1 – *Statistics for Social Scientists*

2. Statistical Software

3. Datasets and Variables

4. Descriptive Statistics and Distributions

5. Association and Correlation

6. Statistical Models

Part 2 – *Quantification for Social Scientists*

7. **Student Presentations** / 1 + class discussion

8. **Student Presentations** / 2 + class discussion

9. **Student Presentations** / 3 + final words

Grading policy

50%	Class activities	—	Come to class, submit required exercises, generate a class discussion after your presentation, etc.
50%	Presentation	—	Present as a group once during class. See above as well as the final appendix of this syllabus.

Reading schedule

The readings below will be distributed at the beginning of the course.

The course slides will contain references to additional handbooks and tutorials to learn the tools that we will use in class — [Google Sheets](#) in the first sessions (for which you should check beginner tutorials like [GCFGlobal](#), [Ben Collins](#) or [Statology](#) prior to class), then [R](#) and [RStudio](#) in the later ones. Passing mentions will also be made to [Python](#) and notebook software like [Google Colab](#).

For a selection of datasets available for political research, see the [Quantitative Social Science Data Web page](#). Please consult with your research supervisor for additional guidance.

To be read after Session 1 (Introduction)

Franklin, M. 2008. “Quantitative Analysis,” in della Porta, Donatella and Keating, Michael (eds), [Approaches and Methodologies in the Social Sciences: A Pluralist Perspective](#), Cambridge University Press, 240–62.

Stone, D. 2015. “Quantitative Analysis as Narrative,” in Bevir, M. and Rhodes, R.A.W. (eds), [Routledge Handbook of Interpretive Political Science](#), Routledge, 157–70.

To be read after Session 2 (Statistical Software)

Espeland, W. N. and Stevens, M. L. 2008. “[A Sociology of Quantification](#),” *European Journal of Sociology / Archives européennes de sociologie* 49(3): 401–36.

Popp Berman, E. and Hirschman, D. 2018. “[The Sociology of Quantification: Where Are We Now?](#)” *Contemporary Sociology* 47(3): 257–66.

— Start working on your presentations. Plan some time for you to work with your group. —

To be read after Session 3 (Datasets and Variables)

Mennicken, A. and Espeland, W. N. 2019. “[What’s New with Numbers? Sociological Approaches to the Study of Quantification](#),” *Annual Review of Sociology* 45: 223–45.

To be read after Session 4 (Descriptive Statistics and Distributions)

Gerring, J. and Christenson, D. 2017. “Univariate Statistics,” in [Applied Social Science Methodology: An Introductory Guide](#), Cambridge University Press, 282–91.

To be read after Session 5 (Association and Correlation)

Gerring, J. and Christenson, D. 2017. “Bivariate Statistics,” in [Applied Social Science Methodology: An Introductory Guide](#), Cambridge University Press, 313–30.

To be read after Session 6 (Statistical Models)

Gerring, J. and Christenson, D. 2017. “Regression,” in [Applied Social Science Methodology: An Introductory Guide](#), Cambridge University Press, 331–52.

Presentations

Students are asked to select a maximum of 10 presentations in the list below, to be delivered in Sessions 7, 8 or 9. Presentations 4 (Gender Violence), 14 (Poverty and Development in Africa) and 22 (Ethics of Quantification) are strongly recommended.

Presentations should not exceed 12 minutes, and should be followed by a 5-minute 'Q & A' and class discussion. Further instructions on how to present will be delivered in class.

The listed readings are only starting points for the presentations. Additional insights from sources identified by the students are welcome, especially when the presentation lists a single reading.

N.B. I will assume that you all know how to locate and access academic material, either online or through the academic library. Note that the Library requires a delay for inter-library loans.

1. Conflict Violence

Ball, P. and Price, M. 2019. "[Using Statistics to Assess Lethal Violence in Civil and Inter-State War](#)," *Annual Review of Statistics and Its Application* 6: 63–84.

Jewell, N. P., Spagat, M. and Jewell, B. L. 2018. "[Accounting for Civilian Casualties: From the Past to the Future](#)," *Social Science History* 42(3): 379–410¹.

2. Conflict Likelihood

Chadefaux, Thomas. 2017. "[Conflict Forecasting and its Limits](#)," *Data Science* 1(1–2): 7–17.

Bara, C. 2020. "Forecasting Civil War and Political Violence," in Wenger, A., Jasper, U. and Dunn Cavelty, M. (eds), *The Politics and Science of Prevision. Governing and Probing the Future*, Routledge, 177–93.

3. Battle Deaths

Lacina, B. and Gleditsch, N. P. 2005. "[Monitoring Trends in Global Combat: A New Dataset of Battle Deaths](#)," *European Journal of Population* 21: 145–66.

Gohdes, A. R. and Price, M. 2012. "[First Things First: Assessing Data Quality before Model Quality](#)," *Journal of Conflict Resolution* 57(6): 1090–108.²

Lacina, B. and Gleditsch, N. P. 2013. "[The Waning of War is Real: A Response to Gohdes and Price](#)," *Journal of Conflict Resolution* 57(6): 1109–27.

4. Gender Violence

Merry, S. E. 2016a. "[Cultural Dimensions of Power/Knowledge: The Challenges of Measuring Violence against Women](#)," *Sociologie du travail* 58(4): 370–80.

Merry, S. E. 2016b. *The Seductions of Quantification. Measuring Human Rights, Gender Violence, and Sex Trafficking*, University of Chicago Press.

¹ See also [Michael Spagat's blog](#) for more case studies of (mis)counting battleground deaths.

² This article is about the [Battle Deaths Dataset](#) published by the Peace Research Institute Oslo (PRIO).

5. Humanitarian Insecurity

Beerli, M. J. 2017. “The Power to Count and the Stakes of Counting: An Inquiry into the Quantified Production of Humanitarian Insecurity,” *Global Governance* 23(1): 57–70.

6. Human Rights Indicators

Rosga, AnnJanette and Satterthwaite, Margaret L. 2012 “Measuring Human Rights: U.N. Indicators In Critical Perspective,” in Davis, K. E. *et al.* (eds), *Governance by Indicators: Global Power through Quantification and Rankings*, Oxford University Press, 297–316.

Satterthwaite, M. L. 2012. “Rights-Based Humanitarian Indicators In Post-Earthquake Haiti,” in Davis, K. E. *et al.* (eds), *Governance by Indicators: Global Power through Quantification and Rankings*, Oxford University Press, 365–91.

7. Human Trafficking

Gallagher, A. and Chuang, J. 2012. “The Use of Indicators to Measure Government Responses To Human Trafficking,” in Davis, K. E. *et al.* (eds), *Governance by Indicators: Global Power through Quantification and Rankings*, Oxford University Press, 317–43.

Zaloznaya, M. and Hagan, J. 2012. “Fighting Human Trafficking or Instituting Authoritarian Control? The Political Cooptation of Human Rights Protection in Belarus,” in Davis, K. E. *et al.* (eds), *Governance by Indicators: Global Power through Quantification and Rankings*, Oxford University Press, 344–64.

8. Internally Displaced Populations and Refugees

Urueña, R. 2012. “Internally Displaced Population in Colombia: A Case Study on the Domestic Aspects of Indicators as Technologies of Global Governance,” in Davis, K. E. *et al.* (eds), *Governance by Indicators: Global Power through Quantification and Rankings*, Oxford University Press, 249–80.

Crisp, J. 1999. “Who Has Counted the Refugees? UNHCR and the Politics of Numbers.” UNHCR Policy Research Unit, Working Paper No. 12.

9. U.S. Census Politics

Castillo, W. 2023. “How Students Can Benefit if the Federal Government Collects Richer Race and Ethnicity Data,” Brookings Institution, August 28.

Cepeda Derieux, A. I., Topaz, J. S. and Ho, D. E. 2020. “‘Contrived’: The Voting Rights Act Pretext for the Trump Administration’s Failed Attempt to Add a Citizenship Question to the 2020 Census,” *Yale Law & Policy Review* 38: 322–59.

Emigh, R. J., Riley, D. and Ahmed, P. 2016. “Interest Groups, Racial Mobilization, and the US Censuses,” in *Changes in Censuses from Imperialist to Welfare States. How Societies and States Count*, Palgrave Macmillan, 147–76.

Lacy, K. 2018. “Problems, Puzzles, and the Production of Knowledge: Harnessing Census Data in the Age of Trump,” *City & Community* 17(3): 560–4.

10. Gross Domestic Product

Coyle, D. 2014. *GDP. A Brief but Affectionate History*. Princeton University Press [skim the whole book, which is not that long, and read/present selectively].

Coyle, D. 2017. “[The Political Economy of National Statistics](#),” in Hamilton, K. and Hepburn, C. (eds), *National Wealth*, Oxford University Press, 15–46 [[preprint](#)].

Felice, E. 2016. “[The Misty Grail: The Search for a Comprehensive Measure of Development and the Reasons for GDP Primacy](#),” *Development and Change* 47(5): 967–94.

Hirschman, D. A. 2016. *Inventing the Economy, Or: How We Learned to Stop Worrying and Love the GDP*. PhD dissertation, University of Michigan [cover ch. 2 and 3].

11. Top Income Inequality

Hirschman, D. A. “[Rediscovering the 1%: Knowledge Infrastructures and the Stylized Facts of Inequality](#),” *American Journal of Sociology* 127(3): 739–86 [[preprint](#)].

Hirschman, D. A. “[Stylized Facts in the Social Sciences](#),” *Sociological Science* 3(30): 710–29.

12. Governance and its Correlates

Merry, S. E., Davis, K. E., and Kingsbury, B. (eds). 2015. *The Quiet Power of Indicators: Measuring Governance, Corruption, and Rule of Law*, Cambridge University Press [cover the intro. and conclusion, plus two selected chapters of your choice].

13. UN, IMF and World Bank Statistics

Morgan, M. S. and Bach, M. 2018. “[Measuring Development— from the UN’s Perspective](#),” *History of Political Economy* 50(S1): 193–210.

Doshi, R., Kelley, J. G. and Simmons, B. A. 2019. “[The Power of Ranking: The Ease of Doing Business Indicator and Global Regulatory Behavior](#),” *International Organization* 73(3): 611–43.

Wagner, N. L. 2016. *Behind the Scenes with Data at the IMF: An IEO Evaluation*. International Monetary Fund Independent Evaluation Office.

14. Poverty and Development in Africa

Bonnecase, V. 2015. “[Généalogie d'une évidence statistique. De la 'réussite' économique du colonialisme tardif à la 'faillite' des Etats africains \(v.1930-v. 1980\)](#).” *Revue d'histoire moderne et contemporaine* 62(4): 33–63. [In French](#)

Jerven, M. 2018. “[The History of African Poverty by Numbers: Evidence and Vantage Points](#).” *Journal of African History* 59(3): 449–61.

Jerven, M. 2013. *Poor Numbers. How We Are Misled by African Development Statistics and What to Do about It*. Cornell University Press [skim the whole book, which is not that long, and read/present selectively, as you see fit].³

Young, A. 2012. “[The African Growth Miracle](#).” *Journal of Political Economy* 120(4): 696–739.

³ See also the extended reviews of that book by [Agnès Labrousse](#) and [Boris Samuel](#), both [in French](#).

15. Failed States

Figueroa Helland, L. and Borg, S. 2014. “The Lure of State Failure. A Critique of State Failure Discourse in World Politics,” *Interventions: International Journal of Postcolonial Studies* 16(6): 877–97.

Rocha de Siqueira, I. 2017. “Symbolic Power in Development Politics: Can ‘Fragile States’ Fight with Numbers?” *Global Governance* 23(1): 43–55.

16. Environmental Sustainability

Le Bourhis, J.-P. 2016. “The Politics of Green Knowledge: A Comparative Study of Support for and Resistance to Sustainability and Environmental Indicators,” *Journal of Comparative Policy Analysis* 18(4): 403–18.

Miller, C. A. 2005. “New Civic Epistemologies of Quantification: Making Sense of Indicators of Local and Global Sustainability,” *Science, Technology, & Human Values* 30(3): 403–32.

17. Agricultural Statistics

Jerven, M. 2014. “The Political Economy of Agricultural Statistics and Input Subsidies: Evidence from India, Nigeria and Malawi,” *Journal of Agrarian Change* 14(1): 129–45.

Carletto, C., Jolliffe, D. and Banerjee, R. 2015. “From Tragedy to Renaissance: Improving Agricultural Data for Better Policies,” *Journal of Development Studies* 51(2): 133–48.

18. Agricultural Reform

O’Keefe, P. 2019. *Making Markets in Australian Agriculture. Shifting Knowledge, Identities, Values, and the Emergence of Corporate Power*, Springer [cover the intro. (“Making Markets: Agricultural Restructuring in Australia”) and ch.5 (“Acting on Society: Quantification, Technologies of Performance, and Erasure of ‘the Social’”)].

Silverstein, B. 2020. *The Social Lives of Numbers. Statistics, Reform and the Remaking of Rural Life in Turkey*, Springer [cover the intro. (“What Do Statistics Do?”), ch. 1 (“Knowing the Countryside: Statistics and Society”) and ch. 3 (“Performativity, Economy and the Remaking of Agriculture”)].

19. Climate Change

Pearce, W. 2014. “Scientific Data and its Limits: Rethinking the Use of Evidence in Local Climate Change Policy,” *Evidence & Policy* 10(2): 187–203.

Sterzel, T. et al. 2015. “Climate Change Vulnerability Indicators: From Noise to Signal,” in Rottenburg, R., Merry, S. E. and Park, S.-J. (eds), *The World of Indicators: The Making of Governmental Knowledge through Quantification*, Cambridge University Press.

20. Pricing Pollution

Banzhaf, S. 2023. *Pricing the Priceless. A History of Environmental Economics*. Cambridge University Press [focus on ch. 6 and 7; I can share a preprint of the book by email].

21. Electoral Forecasting

Gelman, A. and Azari, J. 2017. “[19 Things We Learned from the 2016 Election](#),” *Statistics and Public Policy* 4(1): 1–10 [also cover the responses in the same issue].

Gelman, A. 2021. “[Failure and Success in Political Polling and Election Forecasting](#),” *Statistics and Public Policy* 8(1): 67–72.

22. Ethics of Quantification

Desrosières, Alain. 2014. “[Statistics and Social Critique](#).” *Partecipazione e Conflitto* 7(2): 348–59.

Saltelli, A. and Di Fiore, M. 2020. “[From Sociology of Quantification to Ethics of Quantification](#),” *Humanities and Social Sciences Communications* 7: a69.

23. Algorithmic Governance

Burrell, J. and Fourcade, M. 2021. “[The Society of Algorithms](#),” *Annual Review of Sociology* 47: 213–37.

O’Neil, C. 2016. *[Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy](#)*. Crown [focus on any selection of chapters that you see fit].

24. Algorithmic Fairness

Levy, K., Chasalow, K. E. and Riley, S. 2021. “[Algorithms and Decision-Making in the Public Sector](#),” *Annual Review of Law and Social Science* 17: 309–34.

Das, S., Stanton, R. and Wallace, N. 2023. “[Algorithmic Fairness](#),” *Annual Review of Financial Economics* 15: 565–93.

Mitchell, S. *et al.*, 2021. “[Algorithmic Fairness: Choices, Assumptions, and Definitions](#),” *Annual Review of Statistics and Its Application* 8: 141–63.

25. Ordinal Citizenship

Fourcade, M. 2021. “[Ordinal Citizenship](#),” *British Journal of Sociology* 72(2): 154–73 [also cover the four comments and the response in the [same issue](#) of the journal].

Fourcade, M. and Healy, K. 2024. *[The Ordinal Society](#)*. Harvard University Press [cover any selection of [chapters](#) that you see fit].

26. Data Manipulation

Merridale, C. 1996. “[The 1937 Census and the Limits of Stalinist Rule](#),” *Historical Journal* 39(1): 225–40.

Wigley, S. 2024. “[Regime Type and Data Manipulation: Evidence from the COVID-19 Pandemic](#),” *Journal of Health Politics, Policy and Law* 49(6): 989–1014.

If you are already somewhat well-versed in research methods and want to learn more about recent advances in ‘digital quantitative methods’ (a.k.a. computational social science), I suggest that you pick a presentation from the list below.

DM1. Big Data for Social Scientists

Brady, H. E. 2019. “[The Challenge of Big Data and Data Science](#),” *Annual Review of Political Science* 22: 297–323.

Lazer, D. and Radford, J. 2017. “[Data ex Machina: Introduction to Big Data](#),” *Annual Review of Sociology* 43: 19–39.

DM2. Machine Learning for Social Scientists

Athey, S. and Imbens, G. W. 2019. “[Machine Learning Methods that Economists Should Know About](#),” *Annual Review of Economics* 11: 685–725 [this review requires almost no knowledge of economics and is relevant to all social scientists].

Grimmer, J., Roberts, M. E. and Stewart, B. M. 2021. “[Machine Learning for Social Science: An Agnostic Approach](#),” *Annual Review of Political Science* 24: 395–419.

Molina, M. and Garip, F. 2019. “[Machine Learning for Sociology](#),” *Annual Review of Political Science* 47: 25–47.

DM3. Text Analysis for Social Scientists

Ash, E. and Hansen, S. 2023. “[Text Algorithms in Economics](#),” *Annual Review of Economics* 15: 659–88 [this review requires zero knowledge of economics and is relevant to all social scientists].

Ke, Z. T. *et al.* 2024. “[Recent Advances in Text Analysis](#),” *Annual Review of Statistics and Its Application* 11: 347–72.

Wilkerson, J. and Casas, A. 2017. “[Large-Scale Computerized Text Analysis in Political Science: Opportunities and Challenges](#),” *Annual Review of Political Science* 20: 529–44.

Additional resources

The next pages list some [journals](#), [readings](#) and [websites](#) that are useful to get a grasp of the topics covered in the course (quantification and statistics). All recommended material is written either in English or in [French](#), and particularly recommended resources are [highlighted in yellow](#).

Selected journals

[Annals of Applied Statistics](#)

[Annals of Statistics](#)

[Annual Review of Statistics and its Application](#)

[Biometrika](#)

[Biostatistics](#)

[Econometrica](#)

[European Sociological Review](#)

[Journal of Business & Economic Statistics](#)

[Journal of Computational and Graphical Statistics](#)

[Journal of the Royal Statistical Society, Series A \(Statistics in Society\)](#)

[Journal of Statistical Software](#)

[Journal of the American Statistical Association](#)

[Radical Statistics](#)

[Review of Economics and Statistics](#)

[Scientific Data](#)

[Scientometrics](#)

[Significance](#)

[Social Indicators Research](#)

[Socio-Economic Review](#)

[Statistical Journal of the IAOS](#)

[Statistical Journal of the United Nations Economic Commission for Europe](#)

[Statistical Methods in Medical Research](#)

[Statistical Science](#)

[Statistics and Public Policy](#)

[Statistics in Medicine](#)

[Statistique et société](#) · [in French](#)

Additional readings

- Banzhaf, H. Spencer. 2017. “[Constructing Markets: Environmental Economics and the Contingent Valuation Controversy](#),” *History of Political Economy* 49(suppl.): 213–39.
- Barberousse, Anouk. 2013. “[Les conditions de possibilité de la mesure.](#)” *Cahiers philosophiques* 135: 7–22. [In French.](#)
- Bardet, Fabrice. 2014. *La Contre-révolution comptable. Ces chiffres qui (nous) gouvernent.* Paris, Les Belles Lettres. [In French.](#)
- Beer, David. 2016. “[How Should We Do the History of Big Data?](#)” *Big Data & Society* 3(1).
- Bezes, Philippe, Chiapello, Eve and Desmarez, Pierre. 2016. “[Introduction : la tension savoirs-pouvoirs à l’épreuve du gouvernement par les indicateurs de performance](#),” *Sociologie du travail* 58(4): 347–69. Introduction to a special issue on “[Government by Indicators.](#)” [In French.](#)
- Bouk, D. 2015. *How Our Days Became Numbered. Risk and the Rise of the Statistical Individual.* Chicago, University of Chicago Press.
- Bourmaud, Philippe. 2011. “[Science internationale et élaboration des pratiques du développement : le débat sur les indicateurs de prévalence du paludisme dans les années 1920](#),” in Bourmaud, Philippe (ed.), *De la mesure à la norme : les indicateurs du développement*, Lausanne, BSN Press, 49–67. [In French.](#)
- Bruno, Isabelle, Didier, Emmanuel, and Prévieux, Julien. 2014. *Statactivism. Comment lutter avec des nombres.* Paris, La Découverte. [In French.](#)
- Bruno, Isabelle, Jany-Catrice, Florence, and Touchelay, Beatrice (eds). 2016. *The Social Sciences of Quantification. From Politics of Large Numbers to Target-Driven Policies.* New York, Springer.
- Chang, Hasok and Cartwright, Nancy. 2008. “Measurement,” in Psillos, Stathis and Curd, Martin (eds), *The Routledge Companion to the Philosophy of Science*, London and New York, Routledge, 367–75.
- Chapoulie, Jean-Michel. 2017. “La rigueur dans les enquêtes statistiques,” in *Enquête sur la connaissance du monde social. Anthropologie, histoire, sociologie, France-États-Unis, 1950–2000*, Rennes, Presses Universitaires de Rennes, 265–318. [In French.](#)
- Cooley, Alexander and Snyder, Jack, 2015. *Ranking the World: Grading States as a Tool of Global Governance.* New York, Cambridge University Press.
- Corteel, Mathieu. 2020. *Le hasard et le pathologique.* Paris, Presses de Sciences Po.
- Commenges, Hadrien et al. 2016. “[L’expertise est-elle soluble dans la modélisation intégrée ?](#)” in Nemery Jean-Claude and Thuriot, Fabrice (eds), *Les instruments de l’action publique et les dispositifs territoriaux.* Paris, L’Harmattan, 59–74. [In French.](#)
- Denis, Jérôme and Goëta, Samuel. 2017. “[Rawification and the Careful Generation of Open Government Data](#),” *Social Studies of Science* 47(5): 604–29.

Desrosières, Alain. 2014. *Prouver et gouverner. Une analyse politique des statistiques publiques*. Paris, La Découverte. In French.

Desrosières, Alain. 2008. *Pour une sociologie historique de la quantification. L'argument statistique I*. Paris, Presses de l'École des mines. In French.

Desrosières, Alain. 2008. *Gouverner par les nombres. L'argument statistique II*. Paris, Presses de l'École des mines. In French.

Desrosières, Alain. 2003. "Comment fabriquer un espace de commune mesure ? Harmonisation des statistiques et réalisme de leurs usages," in Lallement, Michel and Spurk, Jan (eds), *Stratégies de la comparaison internationale*, Paris, CNRS Éditions, 151–66. In French.

Desrosières, Alain. 2001. "Entre réalisme métrologique et conventions d'équivalence: les ambiguïtés de la sociologie quantitative," *Genèses* (43): 112–27. In French.

Desrosières, Alain. 1993. *La raison des grands nombres. Histoire de la raison statistique*. Paris, La Découverte [English translation]. In French.

Didier, Emmanuel. 2015. "Mesurer la délinquance en France depuis 1970. Entre expertise et publicité," *Ethnologie française* 45(1): 109–21. In French.

Didier, Emmanuel. 2018. "Globalization of Quantitative Policing: Between Management and Statactivism." *Annual Review of Sociology* 44: 515–34.

Emigh, Rebecca J., Riley, Dylan and Ahmed, Patricia. 2016a. *Antecedents of Censuses from Medieval to Nation States. How Societies and States Count*, Basingstoke, Palgrave Macmillan.

Erkkilä, Tero, Peters, B. Guy and Piironen, Ossi. 2016. "Politics of Comparative Quantification: The Case of Governance Metrics," *Journal of Comparative Policy Analysis* 18(4): 319–438. Introduction to a special issue on "Governance Indices, Politics and Expert Knowledge."

Espeland, Wendy N. and Stevens, Mitchell L. 2008. "A Sociology of Quantification," *European Journal of Sociology / Archives européennes de sociologie* 49(3): 401–36.

Gitelman, Lisa (ed.). 2013. *'Raw Data' is an Oxymoron*. Cambridge, MIT Press.

Goëta, Samuel and Davies, Tim. 2016. "The Daily Shaping of State Transparency: Standards, Machine-Readability and the Configuration of Open Government Data Policies," *Science & Technology Studies* 29(4).

Goldstein, Harvey. 2014. "Using League Table Rankings in Public Policy Formation: Statistical Issues," *Annual Review of Statistics and Its Application* 1: 385–99.

Gould, Stephen J. 1981. *The Mismeasure of Man*. New York, W.W. Norton.

Hacking, Ian. 1991. "How Should We Do the History of Statistics?" in Burchell, Graham, Gordon, Colin and Miller, Peter (eds), *The Foucault Effect. Studies in Governmentality*. Chicago, Chicago University Press, 181–96.

Hautcœur, Pierre-Cyrille. 2008. "Produire des statistiques : pour quoi faire ? L'échec de la statistique des faillites en France au XIX^e siècle," *Histoire & mesure* 23(1): 85–136. In French.

Héran, François. 1984. “L’assise statistique de la sociologie,” *Économie et statistique* 168(1): 23–35. In French.

Jorland, Gérard, Opinel, Annick and Weisz, George (eds). 2005. *Body Counts. Medical Quantification in Historical and Sociological Perspectives*, Montreal, McGill Queen University Press.

Kitchin, Rob. 2014. *The Data Revolution. Big Data, Open Data, Data Infrastructures and Their Consequences*. London, Sage.

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Selected websites

[ACQUA – Approches Critiques de la QUAntification](#) · in French

[Additional Data Sources](#), a list of social science datasets compiled for my , [Statistical Reasoning and Quantitative Methods](#) course

ArXiv papers from [cs.CY – Computers and Society](#) and [stat.AP – Statistics: Applications](#)

[DATACTIVE](#), a research project by [Jonathan Gray](#) and others

[Gapminder](#), created by [Hans Rosling](#), famous for a [brilliant TED Talk](#) given in 2006 (RIP Hans)

[LearnOpenData](#), by Claire Foulquier-Gazagnes, from [Etalab](#)

[Open Data Institute](#)

[Open Knowledge International Blog](#) and [School of Data Blog](#), by [Open Knowledge International](#)

[Philosophy of Data Series](#) and [Politics of Data Series](#), from the [Impact of Social Sciences Blog](#) published by the London School of Economics and Political Science

[Radical Statistics Group](#), the group that publishes the [Radical Statistics](#) journal

[Stats and Stories](#), a podcast that interviews practitioners of statistics — *highly* recommended

[Statistiques en société](#) · in French

[US City Open Data Census](#), an example of an open data census by [Open Knowledge International](#)

[Vital and Health Statistics Series](#), by the U.S. [National Center for Health Statistics](#)

Appendix. This course, your research, and the study of quantification

Note — in what follows, references highlighted in yellow appear earlier in this syllabus, while those highlighted in green appear at the end of this section.

1. As a student, you have surely heard of the qualitative/quantitative divide, since it still largely structures methods courses, programs and textbooks. I want to briefly argue here that this divide is counter-productive, for at least two reasons:
 - i. First, the divide does not explicitly refer back to its epistemological origin, which has to do with [concept intension and extension](#), and therefore with [comparability](#);
 - ii. And second, the divide is insufficiently acknowledged as an ideal-typical one: qualitative and quantitative modes of scientific inquiry are, in practice, always mixed together to varying extents.

The main consequence of (1) is a poor understanding of research methods that manifests itself through various forms of parochialism. The main consequence of (2) is the neglect of (methods of) qualitative inquiry by quantitatively-driven researchers, and conversely, the neglect of (methods of) quantitative inquiry by qualitatively-driven researchers.

2. The latter issue has a simple fix: qualitatively-oriented researchers need to pay attention to the role of numbers (a.k.a. measurements) and (statistical) models in their research topics.

This is the research agenda offered in [Espeland and Stevens \(2008\)](#), who call it a ‘sociology of quantification,’ and who expand the research agenda followed by historians of statistics (such as [Desrosières 1993](#) and [Porter 1995](#)) and by philosophers of science. In recent years, many social scientists have furthered this agenda.

For your presentations, I am asking that you learn enough about this research agenda in order to assess how it might be applied within a given policy domain, research field or dissertation topic. Choose one, and critically examine the role of numbers within it.

The [readings](#) section of this syllabus offers many references related to this agenda, and even more references can be found in its [selection of academic journals](#) and elsewhere in the scientific literature. Last, you are of course more than welcome to use your own research skills to find, access, read, use and cite other relevant academic work.

3. The exercise described above requires at least two things:
 - i. You have received some training in disciplines like epistemology and social science methodology, which are essential to grasp how research design articulates theory, method and data.
 - ii. You have started developing (usually through lots of practice) your own research skills, and thus know how to conduct a literature review, access research publications, and so on.

4. What the exercise above does *not* require is that you conduct a quantitative analysis for the purpose of presenting it in class. On the contrary, the research agenda described in my previous points is, very explicitly, qualitative in nature:
 - i. I am asking that you take a reflexive stance on how numbers are used within your field of inquiry, and/or within the policy area that you are interested in studying.
 - ii. This will lead you to explore how social scientists study ‘experts’ and the use of expertise in policy-making, on which see e.g. Stampnitzsky (2013) on terrorism, Hagan, Schoenfeld and Palloni (2006) on human rights, war crimes and humanitarian interventions, as well as Eyal and Buchholz (2010) and Carr (2010) for more general reviews, and Jasanoff (2004) for a useful theoretical framework.

5. The expected benefits of this course are twofold:
 - i. The first segment of the course intends to show you what tools are available to perform professional-grade quantitative/statistical analysis, beyond the very basic spreadsheet editors – such as Google Sheets, LibreOffice Calc or Microsoft Excel – that you were already familiar with.
 - ii. The second segment of the course intends to suggest a possible way to frame your research dissertation topic by emphasizing the role of data, numbers and statistical analysis in the formation of (especially contemporary) expertise.

Again, it should be obvious that the two expected benefits above are complementary to each other, but that they can also be used in isolation to each other: one does not need to perform a quantitative analysis in order to produce a qualitative assessment of how such forms of analysis contribute to the ‘rule of experts’ (Mitchell 2002).

Most of the points above will be restated in Week 7 of the course, in which I will offer an illustrated overview of the research agenda offered in Espeland and Stevens (2008).

Additional references

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