Jill Lepore, "Politics and the New Machine: What the turn from polls to data science means for democracy," *The New Yorker*, November 16, 2015.

A Note about Sources

N.B. For readers who'd like to read more, or who are undertaking their own research, here is a select bibliography of my sources for this piece. As with all the bibliographies for New Yorker *essays that I post on my Harvard faculty website, this brief discussion mentions a good number of works consulted but it's neither an exhaustive inventory of my sources nor a survey of the scholarship in a given field. Instead, I've listed works I found most useful or especially provocative. I have generally only included manuscripts, journal and magazine articles, and books; I haven't listed interviews here at all; I've generally not included things like newspapers, advertisements, patents, legislation, and policy statements; and I've left out citations from specialized bodies of literature in fields like medicine and law. A last caveat: these brief bibliographies are all frozen in time: I do not update them, and they therefore don't include anything written on these subjects after the date on which my essay was published.*

Introductions to the measurement of public opinion, directed at students and citizens, are Herbert Asher, *Polling and the Public: What Every Citizen Should Know* (Washington, DC: Sage Press, 2012, eighth edition) and Barbara A. Bardes and Robert W. Oldendick, IPublic Opinion: Measuring the American Mind (Lanham, MD: Rowan and Littlefield, fourth edition). A very useful methods-and-problems anthology for scholars is equally valuable for students: Adam J. Berinsky, ed., *New Directions in Public Opinion* (New York: Routledge, 2012). An invaluable scholarly compendium is Robert Y. Sharpio and Lawrence R. Jacobs, eds., *The Oxford Handbook of American Public Opinion and the Media,* ed. (New York: Oxford, 2011, 2013).

My account pieces together the history of public opinion measurement from many primary and some secondary sources. Straw polling is chronicled and analyzed in Claude E. Robinson, *Straw Votes: A Study of Political Prediction* (New York: Columbia University Press, 1932). This same story is told in very many places but nearly all accounts derive from Robinson's. See, e.g., John M. Fenton, *In Your Opinion: The Managing Editor of the Gallup Poll Looks at Polls, Politics and the People from 1945 to 1960*, with a foreword by Dr. George Gallup (Boston: Little, Brown and Company, 1960), chapter 1. On the beginnings of public opinion polling, see Melvin G. Holli, *The Wizard of Washington: Emil Hurja, Franklin Roosevelt, and the Birth of Public Opinion Polling* (New York: Palgrave, 2002). A fantastic history of surveys in American life is Sarah E. Igo, *The Averaged American: Surveys, Citizens, and the Making of a Mass Public* (Cambridge: Harvard University Press, 2007). And see also James S. House et al., eds., *A Telescope on Society: Survey Research and Social Science at the University of Michigan and Beyond* (Ann Arbor, MI: University of Michigan Press, 2004), especially chapter one; and Jean M. Converse, *Survey Research in the United States: Roots and Emergence, 1890-1960* (1987; New Brunswick, NJ: Transaction Publishers, 2009). The

origins of the public opinion industry, and the repeated controversies, are very well documented in Amy Fried, *Pathways to Polling: Crisis, Cooperation and the Making of Public Opinion Professions* (New York: Routledge, 2012). On the rise of the social sciences, see Dorothy Ross, *The Origins of American Social* Science (Cambridge, UK: Cambridge University Press, 1991), and on American social science and democratic theory and practice, see Andrew Jewett, *Science, Democracy, and the American University: From the Civil War to the Cold War* (Cambridge, UK: Cambridge University Press, 2012).

Gallup's fascinating and influential work is best examined through his own writings, interviews and testimony. See especially: George Horace Gallup, "An Objective Method for Determining Reader Interest in the Content of a Newspaper," Ph.D. dissertation, University of Iowa, 1928; Reminiscences of George Horace Gallup, 1962-1963, Columbia Oral History Project, Columbia University; George Gallup, *Public Opinion in a Democracy* (Princeton, NJ: Princeton University Press, 1939); George Gallup and Saul Forbes Rae, *The Pulse of Democracy: The Public-Opinion Poll and How It Works* (New York: Simon and Schuster, 1940); U.S. House of Representatives, *Campaign Expenditures*, Part 12: American Institute of Public Opinion (Gallup Poll), Dr. George Gallup, Witness, Special Committee to Investigate Campaign Expenditures, December 28, 1944; and U.S. House of Representatives, *Public Opinion Polls,* House Subcommittee on Library and Memorials, Committee on House Administration, Committee on House Administration, September-October 1972 (Gallup's testimony runs from page 42-52). On Gallup's work measuring audience interest, rather than voter opinion, see Susan Ohmer, *George Gallup in Hollywood* (New York: Columbia University, 2006).

For an early account of the tensions between pollsters and social scientists, see Hadley Cantril, *Gauging Public Opinion* (Princeton, NJ: Princeton University Press, 1944), Preface. I left Cantril's work outside of my discussion in this short essay but it is central to the field. See, e.g., Lloyd A. Free and Hadley Cantril, *The Political Beliefs of Americans: A Study of Public Opinion* (1967; reprinted edition Simon and Schuster, 1968). On Lindsay Rogers and the nature of his critique of polling, an essential and illuminating discussion is Amy Fried, "The Forgotten Lindsay Rogers and the Development of American Political Science," *The American Political Science Review* 100 (2006): 555-561. The report commission by the Social Science Research Council in 1948 is Fredrick Mosteller et al., *The Pre-Election Polls of 1948: Report to the Committee on Analysis of Pre-election Polls and Forecasts* (New York: Social Science Research Council, 1949).

On Simulmatics, see Ithiel De Sola Pool and Robert Abelson, "The Simulmatics Project," *The Public Opinion Quarterly* 25 (1961): 167-183; Eugene Burdick, *The 480* (New York: McGraw-Hill, 1964); Ithiel De Sola Pool, Robert Abelson, and Samuel L. Popkin, *Candidates, Issues, and Strategies: A Computer Simulation of the 1960 and 1964 Presidential Election* (Cambridge, MA: The MIT Press, 1965); and Kenneth Janda, "Innovations in Information Technology in American Party Politics Since 1960," in *The Political Parties in the Digital Age: The Impact of New Technologies in Politics,* edited by Guy Lachapelle and Philippe J. Maarek (Boston, MA: 2015).

By 1972, when the errors and abuses of polling were widely covered in the press and Congress debated the Truth in Polling Act, many pollsters had begun to distance themselves from disreputable polls. After that date, there exist many calls for the reform or regulation of polling written by pollsters or former pollsters. An early example is Charles W. Roll, Jr. and Albert H. Cantril, *Polls: Their Use and Misuse in Politics* (New York: Basic Books, 1972). The current prevalence of polling watchdogs and polling aggregators (including Mark Blumenthal's Pollster.com, Nate Silver's FiveThirtyEight, and Real Clear Politics) is in this distinguished tradition. So are the recent efforts of the American Association for Public Opinion Research to promote transparency.

The role of the press in polling since the beginnings of the modern media-poll, in 1975, is best discussed by Moore, in *Opinion Makers*, but a landmark document in that history is Philip Meyer, *Precision Journalism: A Reporter's Introduction to Social Science Methods* (Bloomington, IN: Indiana University Press, 1973). An especially insightful summary and discussion of recent research in this field is W. Lance Bennett, "News Polls: Constructing an Engaged Public," in *The Oxford Handbook of American Public Opinion and the Media,* ed. Robert Y. Sharpio and Lawrence R. Jacobs (New York: Oxford, 2011, 2013), 251-265. On the use of polls by occupants of the Oval Office, see Robert M. Eisinger, *The Evolution of Presidential Polling* (Cambridge, UK: Cambridge University Press, 2003).

Recent discussions of the Internet and political discourse include David Karpf, *The MoveOn Effect: The Unexpected Transformation of American Political Advocacy* (New York: Oxford University Press, 2012) and Matthew Hindman, *The Myth of Digital Democracy* (Princeton, NJ: Princeton University Press, 2009).

Substantive and thoughtful critiques of polling are many but see especially (in chronological order): Herbert Blumer, "Public Opinion and Public Opinion Polling," *American Sociological Review* 13 (1948): 524-49; Lindsay Rogers, *The Pollsters: Public Opinion, Politics, and Democratic Leadership* (New York: Knopf, 1949); Pierre Bourdieu, "Public Opinion Does Not Exist [1972]," reprinted in *Communication and Class Struggle, volume1 Capitalism, Imperialism*, edited by Armand Mattelart and Seth Siegelaub (New York: International General, 1979); Leo Bogart, *Silent Politics: Polls and the Awareness of Public Opinion* (New York: Wiley and Sons, 1972); Benjamin Ginsberg, *The Captive Public: How Mass Opinion Promotes State Power* (New York: Basic Books, Inc., 1986); George F. Bishop, *The Illusion of Public Opinion: Fact and Artifact in American Public Opinion Polls* (Lanham, MD: Rowan & Littlefield, 2005); David W. Moore, *The Opinion Makers: An Insider Exposes the Truth Behind the Polls* (Boston: Beacon Press, 2008); and Robert Wuthnow, *Inventing American Religion: Polls, Surveys, and the Tenuous Quest for a Nation's Faith* (New York: Oxford University Press, 2015).

Compelling discussions of and arguments in favor of public opinion surveys include: Sidney Verba, "The Citizen as Respondent: Sample Surveys and American Democracy, Presidential Address, American Political Science Association, 1995," *American Political*

Science Review 90 (1996): 1-7; and Jon A. Krosnick and Arthur Lupia, "The American National Election Studies and the Importance of New Ideas," in John H. Aldrich and Kathleen M. McGraw, eds., *Improving Public Opinion Surveys: Interdisciplinary Innovation and the American National Election Studies* (Princeton, NJ: Princeton University Press, 2012), 9-22.

Technical discussions of the measurement of public opinion lie outside the scope of this short bibliography but an important discussion of the problem of non-response is a set of papers delivered in 1999 and published as Robert M. Groves et al, ed., *Survey Nonresponse* (New York: John Wiley & Sons, Inc., 2002). For a more recent and very useful account, see Adam J. Berinsky, "Representative Sampling and Survey Non-Response," in *Oxford Handbook of American Public Opinion and the Media,* 332-347.

Political scientists continue to debate the relationship between polling and democracy. Few discussions of this subject can steer wholly clear of the arguments made by Walter Lippmann in *Public Opinion* (1922) and especially in *The Phantom Public* (1925). A small selection of important contributions to that discussion in the last half century includes: V. O. Key, *Public Opinion and American Democracy* (New York: Knopf, 1963); Susan Herbst, *Numbered Voices: How Opinion Polling Has Shaped American Politics* (Chicago: University of Chicago Press, 1993); Lawrence R. Jacobs and Robert Y. Shapiro, *Politicians Don't Pander: Political Manipulation and the Loss of Democratic Responsiveness* (Chicago: University of Chicago Press, 2000); Adam J. Berinsky, *Silent Voices: Public Opinion and Political Participation in America* (Princeton, NJ: Princeton University Press, 2004); Michael W. Traugott, "Do Polls Give the Public a Voice in a Democracy?" in Michael A. Genovese and Matthew J. Streb, eds., *Polls and Politics: The Dilemmas of Democracy* (Albany, NY: State University of New York Press, 2004). To address the problems of non-opinion and uninformed opinion, Stanford political scientist James Fishkin conducts experiments in what he calls "deliberative polling," identifying a survey sample by traditional methods but bringing the panel together to learn about and debate an issue before polling them. See especially James S. Fishkin, *The Voice of the People: Public Opinion and Democracy* (New Haven, CT: Yale University Press, 1995) and Fishkin, *When the People Speak: Deliberative Democracy and Public Consultation* (New York: Oxford University Press, 2009).