A History of Survey Research and Its Professional Associations

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Five millennia of history in 15 minutes ...



"Surveys" in the form of censuses date at least to the 3rd Century B.C. in Egypt.

They were done mainly for taxation or conscription.

The Old Testament's Book of Numbers literally takes its name from the census that God ordered Moses to undertake of Israelites.

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A more recent census director, Bob Groves ... had an interesting observation about the decennial enumeration of the U.S. population – which was mandated by the Constitution to determine representation in Congress:

"The American Constitution was the first to use a census to empower the people over their government instead of the other way around."

This slide shows records from the first U.S. census, in 1790.



Today a major use of polling is for pre-election estimates of vote preference. The first use of surveys for that purpose apparently was in the 1824 U.S. presidential election.

Tom Smith documented this thoroughly in a 1990 article for Public Opinion Quarterly.



The nominating system that year produced four presidential candidates, all of the Democratic-Republican Party. (In the end, no candidate won an Electoral College majority and the House of Representatives named John Quincy Adams president.)

Straw polls emerged from political conventions and most commonly were conducted at public meetings such as militia musters, grand juries and Fourth of July celebrations.

Tom Smith could not find evidence that <u>newspapers</u> actually sponsored any of these straw polls, but they did collect and publish the results aggressively.

In fact, some newspapers kept running tallies of varied straw polls – not entirely unlike the poll aggregation we see at places like HuffPost Pollster, RealClearPolitics and the 538 blog online at the New York Times. For example, Tom notes that the *Star and North Carolina Gazette* had aggregated 155 straw poll results by early October.

The 1824 straw polls also generated some of the same controversy we see today – such as critiques of their accuracy and representativeness. Aggrieved partisans often leveled the complaints.

These straw polls <u>were</u> crude and unscientific – and yet Smith found they often did well in their predictions.



Of great import for modern survey research were **social surveys** conducted in England and the United States around the turn of the 20th century.

These were enumerations, typically of cities or parts of cities.



The first landmark study was conducted in London by Charles Booth, who ultimately used his work to argue for government-funded Old Age Pensions.



Another major social study around this time was conducted in York, England, by <u>Seebohm</u> <u>Rowntree</u>. This, among other things, marked the first usage of a **poverty line** in social science.

Links between Booth/Rowntree and US survey research in 1930s (Converse 2009)

- Fieldwork in natural world of events, objects and people (not a lab)
- Scope comprehensive overview of domain
- Detail examination of detailed cases
- Quantification
- Individual unit of analysis

In her book on the roots and emergence of survey research in the United States, Jean Converse identified five elements of the Booth and Rowntree work that would become critical components of the survey research field.

- Research conducted in the field, not in a lab
- Comprehensive scope
- Examination of detailed cases
- Quantification in the aggregate
- And an individual unit of analysis



Social surveys also began to be conducted in the U.S. around the turn of the century as part of a broader social reform movement.

Straw polls, early 20th c.

Hearst New York Herald Chicago Tribune Omaha World-Herald Literary Digest



Meanwhile, there were more straw polls, this time sponsored by print media.



Market research developed along with other predecessors of modern survey research. Charles Coolidge Parlin is considered that field's founder.

Agriculture research, much of it federally sponsored, morphed into studies of rural people.

And the rise of "new media" – radio – prompted new forms of communications research.



What really propelled the beginning of modern, scientific survey research was the eventual acceptance of probability sampling, providing a theoretical foundation for statistical inference from a sample to a broader population.

There is heated debate today over non-probability alternatives – and we'll see that in some respects that controversy has its roots in the early days of survey research.

Back then the debate mainly pitted "random" selection against "purposive" sampling – sampling with a purpose in mind, targeting respondents with desired characteristics to fit that purpose.



First, though, the statistical world had to become comfortable with the notion that ANY sample could be a valid and reliable substitute for a complete enumeration.

Anders Kiaer was the first to make that case, at the turn of the century. He met fierce resistance but eventually won wide support for his argument.



A.L. Bowley's major contribution was to develop a theoretically sound way of quantifying the precision – or slight lack of it – in a random sample.

In effect he conceptualized and laid the groundwork for calculating survey sampling error.



Kiaer and Bowley didn't come down strongly one way or the other on purposive versus random sampling, however.

Jerzy Neyman resolved the dispute in a landmark 1934 paper.

In it he clearly described and compared stratified (random) sampling and purposive selection and made a convincing case that probability sampling was better.



These statistical innovations would be followed shortly by advances in measurement.

In his 2011 history essay in the 75th anniversary issue of Public Opinion Quarterly, Bob Groves identified three eras of scientific survey research - starting with the era of its invention.

Of the field's pioneers, Groves wrote:

"... (T)hey shared an attribute of creativity and quick thinking, a pragmatism that eschewed theory when it did not solve practical problems.

"They were high-energy folks, broad thinkers, believing that they were creating a tool for the betterment of society."



First a quick summary of the types of methodology typically employed in this early period.

Now let's look at some of the pioneers. Arguably the three "fathers of scientific polling" were Archibald Crossley, Elmo Roper and George Gallup.

All three passed the first test of scientific survey methodology, correctly forecasting that Franklin Delano Roosevelt would be re-elected president in 1936.



Archibald Crossley had a background in advertising and market research and invented the first radio audience measurement system.

In 1936 he worked for the Hearst newspapers, more than 50 of which carried the Crossley Poll.



Elmo Roper co-founded a market research firm in 1934. The next year Henry Luce hired him to conduct probability polling in the 1936 presidential race for Fortune Magazine.

As an aside. one of Roper's later employees would become a big name in the field in his own right – Lou Harris.



George Gallup started his career as a newspaper editor and journalism educator, then worked in advertising.

In 1935 he established the American Institute of Public Opinion and syndicated the Gallup Poll to numerous newspapers.

His organization gained national recognition not only by forecasting FDR's re-election in 1936 ... **(SHOW LITERARY DIGEST MAGAZINE)** but by correctly predicting that the straw poll published in this issue of the Literary Digest would get the race wrong.

Gallup did that by using a small random sample chosen to match the Digest's much larger purposive sample.



In five previous straw polls, dating to 1916, the Literary Digest DID forecast the correct winner.

In 1936 it predicted an Alf Landon landslide – based on a "mammoth" sample of some 2.4 million respondents (out of 10 million to whom ballots had been mailed).

But it was FDR who won by a landslide, 61% to 37%.

The Literary Digest underestimated Roosevelt's share of the vote by around 20 percentage points.

In short, the suspected causes for this fiasco include selection bias and non-response bias.

One stated reason for this fiasco has been SELECTION BIAS - The sample was drawn from lists of LD subscribers, automobile owners and people with telephones – at that time, in the depths of the Great Depression, generally indicating higher SES – and thus more likely to be Republican, and against FDR.

Another, identified by Archibald Crossley in a post-mortem in the very first issue of Public Opnion Quarterly in 1937, was NON-RESPONSE bias. With a response rate of 24% - very low for that era – Crossley surmised that Landon voters were more likely to return the survey than were FDR backers. It's worth noting that in this issue, the editors bragged that the results – quote - "are exactly as received from more than one in every five voters polled in our country – they are neither weighted, adjusted nor interpreted."



Another major figure in survey research in this era was Paul Lazarsfeld. He was an academic particularly known for innovations in statistical analysis, including the cross-tabulation.

He also was known for his contributions to the fields of sociology, communications and political research (and was AAPOR's president in 1952-53).



Among Harry Field's accomplishments was that he founded the National Opinion Research Center in 1941, at the University of Denver.



Another major academic survey research institution founded in this early period was the University of Michigan's Institute for Social Research, in 1946. Rensis Likert was founder and director until 1970.

Likert may be best known for the response scale that bears his name. He developed the Likert scale in 1932 to identify the extent of a person's beliefs, attitudes, or feelings towards some object.

Likert and Angus Campbell also started Michigan's Survey Research Center. It soon launched its national consumer confidence survey (to this day a component of the federal government's index of leading economic indicators)



Presidents and other politicians also began to use polling for their own measure of public opinion and to advance their agenda.

Two of the first political pollsters were Emil Hurja and Hadley Cantril, both of whom started out working for FDR.

http://www.pseudology.org/Reklama/Hurja_Emil.htm

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Polling as a means toward presidential autonomy: Emil Hurja, Hadley Cantril and the <u>Roosevelt</u> administration. President <u>Franklin Delano Roosevelt</u>'s private polling served as a historic turning point in American politics.

<u>Roosevelt</u>, faced with a constricting party apparatus and hostile relations with the media and Congress, sought to strengthen the executive branch in order to achieve a measure of independence from the Democratic Party, the media, or Congress. Polls, we argue, allowed <u>Roosevelt</u> and subsequent presidents to gauge public opinion without the consent of parties, the media, or Congress.

Emil Hurja's polls for the DNC and Hadley Cantril's polling for <u>Roosevelt</u> explain this new function of the presidency. Emil Hurja disseminated poll data to the president, employing statistical techniques that began to obviate the local Democratic party as an institutional conduit between the electorate and the executive branch. Hadley Cantril was more than a poll data disseminator; he was also a media and communications advisor.

<u>Roosevelt</u>'s advisors used private polls as vehicles to advance the president's legislative and public relations agendas, and as instruments to measure the popularity of policies not yet codified and candidates not yet announced. Thanks to these polls, <u>Roosevelt</u> had a secret weapon that loosened the bonds previously preventing the executive branch from becoming the leadership vehicle he envisioned it to be. Of the ways in which the executive branch began to grow under <u>Roosevelt</u>, the assimilation of public opinion polls and the advice that accompanied them as an accepted function of the presidency signaled a historic change in the evolution of American politics

International Journal of Public Opinion Research 10:237-256 (1998) International Journal of Public Opinion Research

Though trained as a psychologist, Cantril's most important work concerned the then-new topic of <u>public opinion</u> research. Influenced initially by the success of <u>George Gallup</u> and <u>Elmo</u> <u>Roper</u> during the <u>1936</u> presidential election, Cantril sought to apply their systematic <u>polling</u> technique to academic <u>social psychology</u>.^[3] Cantril was a founding editor of <u>Public Opinion</u> <u>Quarterly</u>. In 1940 he founded Princeton University's <u>Office of Public Opinion Research</u>.^[4] and from autumn 1940 onwards provided the <u>Roosevelt</u> administration with confidential information about American public opinion, particularly regarding the <u>war in Europe</u>.^[5] In 1942 Cantril conducted a small-sample survey of <u>Vichy</u> officials in Morocco, prior to <u>Operation Torch</u>, that revealed the intensity of the anti-British sentiment of the French forces there. This information influenced the disposition of forces during the operation, with American troops landing near Casablanca and mixed forces at Oran and Algiers.^[5]



The end of World War II brought explosive growth in government-sponsored surveys – and the private sector survey research field also blossomed.



Professional associations formed for public opinion and survey research, after the first conference on the subject, in 1946.

In this letter Harry Field invited early survey research leaders to meet at an historic miners' inn in Central City, Colorado, outside Denver.

Field noted that "Denver is only eight hours by air from New York ..."

Tom Smith, writing in 2010, noted that "73 pioneers answered the call ... **They came from** academia, government and political research, and the suspicions were mutual."



Smith adds: "Field's argument had been compelling: if they failed to appear at the conference they would be missing out on something big, with their competitors gaining a critical upper hand."



The cover of the program was modest ...



I visited Central City last year. Here's the Teller House, where that first conference was held. (As an aside, Central City today is a casino town. In its recent past the Teller House has been a casino that <u>failed</u>. What are the odds of **that**?)

Harry Field's staff dreamed up some bits of "Western hospitality." For instance, a couple NORC staffers led a burro up and down the street. Central City attendee Don Cahalan – who wrote an account of the conference - reports this was a great hit with the Easterners ... until the burro began leaving "calling cards."





Don Cahalan, one of the Central City attendees, wrote later that guests learned only after arrival that there were no private baths. This prompted one to wish aloud for "<u>less history</u> <u>and more plumbing</u>."



The Eureka Room – likely a meeting room at the Teller House.

There were 11 sessions at this first conference - no more than one at a time ...



The Teller House bar ...



... was, Cahalan wrote, where "A number of strangers were led to abandon their prejudices against each other."

For example, after Morris Hansen of the U.S. Census Bureau played at that piano and shared drinks with the singers, Cahalan wrote: "... the commercial researchers came to perceive him as a regular guy instead of someone who was threatening to push expensive probability sampling down their throats."



This photo is from the 2010 AAPOR conference in Chicago. On the right is Anne Zanes, who had worked for Harry Field and was one of the 73 Central City attendees. She's reviewing a scrapbook that was put together soon after the event.



One of the resolutions to come out of Central City was to meet again in a year and form professional associations.



ESOMAR was founded a year after AAPOR and WAPOR, with a focus more on market research and advertising.



Here's a partial list of some other professional associations that formed over the years.



Now back to public polling ...

Disaster struck in the 1948 election.

Gallup and Crossley forecast a Dewey victory of about 5 points. Roper had Dewey up by 15. We all know who really won (Truman by 4.5% points)

The shock brought academic and commercial survey researchers together to try to figure out what went wrong.

Among the causes identified were timing of the polls, which ended at least two weeks before the election, and quota sampling.

This episode led to numerous methodological improvements.

The Social Science Research Council organized a committee of academics to investigate and the pollsters gave them source material and access to their staffs.

The committee's conclusions:

- Timing of the polls – ended too far in advance of the election (at least two weeks for all three)

- Quota sampling interviewers may have selected more educated and well-off people within their quotas
- Allocation of undecideds assumption (possibly wrong) was they'd break the same as those who'd expressed a preference
- The pollsters had no certain way of determining who would vote or not.

Standards development A very long process for AAPOR ... Discussed at Williamstown, 1947: Authority? Or authoritarian? Standards of performance? (Rejected) Research ethics, not techniques 1950s: Apply standards to non-members? Code of Professional Practices & Standards finally adopted in 1958

From AAPOR's earliest days, standards were a hot topic With some of these debates still lingering today.

It would take more than a decade before AAPOR adoped a code of ethics ...



... and only after a LOT of work

This was the first draft of the Code. It's in the AAPOR Archives.



Archiving of survey data also began in the postwar period.



The next era identified by Groves was one of expansion of the survey research field.

Computers drove growth and changed how surveys were conducted and analyzed.



With landline telephone penetration becoming nearly universal and the Mitofsky-Waksberg method providing a valid and efficient way of sampling, telephone polling became the norm.



Government increasingly used survey research ... as did elected officials

Exit polling

- First conducted by CBS News in 1967 Kentucky governor's race
- 1970s/80s: TV networks do own
- 1990s-present: Networks and AP in exit poll consortium



This photo is from the early to mid-1970s at CBS News.

Counterclockwise from front left: Warren Mitofsky, Joseph Waksberg, Murray Edelman, Marty Plissner (CBS News elections director), a CBS Evening News writer (Charlie White?), and Walter Cronkite.

Academic public affairs polling

- 1970s: Rutgers, Marist; Univ. of NH, KY, Cincinnati
- 1980s: Quinnipiac (formally 1994)
- Numerous others since



Another major advance during the 1980s into 1990s was an interdisciplinary approach in which principles of cognitive psychology were applied to survey question design. This 1996 book was a landmark in this area.



But as time went on, response rates began to decline, and in some sectors at least, costs escalated.



As the Era of Expansion came to a close, Groves noted some tectonic shifts in the field.

The Era of Transition (1990-???)

Growing access impediments = continued deterioration in response rates

Pew's 2012 average: 9%

 No convincing evidence thus far that this unit nonresponse harms survey estimates (at least re vote preference) – but research continues



Cell phones are a well-known issue.

A couple of statistics have gotten a lot of notice – more than a third of US households are now cell-only. And that figure exceeds 50 percent for people under age 30.

But another one that should raise your eyebrows: Today more than nine in 10 Americans have cell phones.

This raises a number of methodological questions, which have been quite thoroughly studied yet often still lack clear answers.

Within the last couple years it has become apparent that US telephone surveys must have a cell phone component, not be landline-only (though most automated polls remain LLO).

In fact with wireless substitution trends being what they are, another question is starting to be asked, as explored in the new issue of POQ by Andy Peytchev and Benjamin Neely: Are we moving toward a single-frame cell-phone RDD design?

Alternative approaches

Interactive Voice Response

- Skepticism vs eventual track record
- But now cell phones are a problem
- Extremely low response rates

Sampling frames:

- Address-based sampling (return to roots?)
- Voter registration files and other lists

A couple examples of variations from live-interviewer RDD

Online surveys

Probability-based

- Knowledge Networks (now GfK)

Opt-in (non-probability)

- YouGov/Polimetrix
- Countless others



Doug Rivers



Just a few glimpses into the future ...

Thank you!

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