

Analyzing Stakeholder Data:
Capturing Community Conditions, Economic Inclusion and Emerging Issues

Bárbara J. Robles*

Board of Governors of the Federal Reserve System, Washington, DC, USA
Barbara.j.robles@frb.gov

Joseph A. Firschein*

Board of Governors of the Federal Reserve System, Washington, DC, USA
joseph.a.firschein@frb.gov

Abstract

In an effort to increase knowledge related to economic growth and inclusion at the community level, staff at the Federal Reserve Board of Governors and a number of Federal Reserve Banks have engaged in a range of data collection efforts to understand the perspectives of community stakeholders serving low-income consumers and communities. Community stakeholders often play a central role in the community and economic development of low-income locales. These stakeholders include such organizations as community development financial institutions, credit unions, community banks, non-profit service providers and faith-based organizations, public sector agencies, small business owners, and community colleges. Recognizing that information from such organizations can help explain local changes and can complement the results of numeric surveys, Federal Reserve System staff have engaged in several modes of systematically collecting anecdotal data at the community level. For example, a number of Reserve Banks have conducted web-based regional surveys of community conditions and emerging issues. Federal Reserve Board of Governors staff have also conducted a national web-based survey to provide comparison benchmarks both with respect to trends and geographical dispersion. In addition, Federal Reserve staff have held focus group sessions with community stakeholders to capture intelligence on small business access to credit, labor markets, and other issues. The Federal Reserve Board has published results from some of these regional data gathering efforts to provide a broader picture of financial and credit conditions and emerging policy issues. By employing a mixed methods approach, we have been able to analyze this information from a variety of quantitative and qualitative approaches. We are continuing to explore ways to systematically gather micro-data from community stakeholders and enhance our ability to use this information to assess regional and macro impacts.

Keywords: community stakeholders, internet surveys, mixed methods, data analytics, text analysis, data visualization and survey methods

* The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors.

1. Introduction and Background

The financial crisis of 2007-2009 demonstrated the challenge of understanding economic conditions and risks at the local level and determining the extent to which microeconomic conditions are likely to have broader effects on macroeconomic conditions. In the years leading up to the financial crisis, many community stakeholders serving low-income communities relayed anecdotal information from a variety of locales and produced narratives about emerging risks and issues. One challenge in interpreting anecdotal information is in differentiating between isolated anecdotes and broader trends. For example, is an issue being described by a community-based nonprofit group isolated as a local problem or does it also apply to other geographical areas and organizations? In a rapidly changing economic environment the answer to this question becomes crucial to understanding the significance of emerging conditions at the local level as well as tracking these conditions over time and geographies.

In an August 2009 speech, Federal Reserve Governor Daniel Tarullo noted this challenge for Federal banking regulatory agencies in systematically gathering community perspectives and making the information relevant for policymakers. His suggestions included the following advice for staff in the Community Affairs¹ function of the Federal banking agencies that focus on low-income communities and consumers:

“...Community Affairs should evaluate ways to provide policymakers with regular, standardized information on low- and moderate-income communities. As I have described, the Community Affairs function generates valuable information in each of the Reserve Bank Districts. The challenge is to provide that information to policymakers in a timely way and in a form that allows comparison over time and across different geographic areas. This is an obvious challenge, not only for the familiar reasons associated with creating a new data series, but also because of the diversity of the communities for which information would need to be collected and standardized. But effective policy will most readily be developed where illuminating anecdotal or local information is supplemented with a system of data collection and analysis.”

This paper provides an overview of several intelligence gathering initiatives across the Federal Reserve System from 2009 to the present that address the challenge articulated by Governor Tarullo. Some of this work had been underway at the time of the remarks and has continued to evolve in recent years. The effort has included two types of initiatives – the first involving Internet-based polling of community stakeholders and the second involving in-person convenings and focus groups. In both cases, the resulting information provided a low-cost and relatively quick way to complement other sources of micro and macro data collection available to Federal Reserve policymakers.

2. Community Data Initiative

¹ Note that most Reserve Banks and the Board now refer to the Community Affairs function as “Community Development.”

Given the availability of Internet surveys and polls as a vehicle to provide community perspectives at a low cost and in a short time period, over the past several years Board of Governors staff in the Division of Consumer and Community Affairs have supported a wide range of Reserve Bank polling efforts. In designing a web-based polling initiative focused on community stakeholders (referred to at the Board of Governors as the “Community Data Initiative”), we identified three primary objectives. First, we sought to differentiate between single event anecdotes and trends over time. Second, we sought to provide a measure of geographical dispersion for triangulating Reserve Bank District data findings with national data monitoring results. Finally, we sought to capitalize on Reserve Banks’ deep regional and District knowledge and community relationships.

Using web-based surveys as a primary data collection method, we sought to minimize the time lag present in larger, nationally stratified sampling methods. In addition to using a real-time data gathering internet platform, we employed both quantitative and qualitative mixed-methods in survey design. A number of Reserve Banks collected District-specific information from local community stakeholders. Community stakeholder respondents were identified as community based organization or non-governmental organizations, community financial institutions, small businesses, faith based organizations, educational institutions, foundations, and public sector agencies. To complement and independently triangulate District level findings, the Board of Governors partnered with NeighborWorks America, a national network of affordable housing lending and counseling organizations, to gather survey results to use as a point of comparison with Reserve Bank results. In addition, secondary sources of community level data from other government agency surveys² were used as comparative references.

Given the decentralized nature of the Federal Reserve System, Reserve Banks designed their own survey instruments and identified particular community stakeholder respondents that best corresponded with District issues and resources. In general, three types of polling instruments emerged from the different Reserve Bank approaches: (1) diffusion³ indices, (2) top three ranked economic issues (current and emerging), and (3) small business establishment surveys (credit access and local economic conditions). All of the Reserve Bank survey instruments also include an open-ended, unstructured question that allows for the capture of stakeholder concerns not addressed in the questionnaire. The survey instruments are consistently administered either using a quarterly, bi-annual or annual time frame. Reserve Banks use these polls for a variety of purposes, including identifying topics for additional research, preparing Bank senior leadership for macroeconomic policy meetings, and identifying opportunities for more targeted technical assistance to respond to specific community challenges.

²The secondary sources employed for validation and tracking of community survey findings mostly commonly used are: the [American Community Survey](#), [American Housing Survey](#), [Bureau of Labor Statistics](#), and the [Longitudinal Employer-Household Dynamics](#).

³A diffusion index measures the degree of dispersion of change in the index. The amount of change is based on components of the index that have increased, decreased or remains unchanged within a specific time period. See the Monthly Labor Review, “[Diffusion Indexes: a barometer of the economy](#),” Vol.113, No.4 (April 1990), pp. 13-21 and Edmiston (2013) for a complete discussion of diffusion indexes.

The table below provides a summary of the different sample types and frequency of administration of the Reserve Bank polls.

Respondent Sample	Publication	Instrument Type	Collection Frequency
Reserve Banks using Broad Community Stakeholder Sample			
San Francisco FRB	Vantage Point	Ranking	Biannual
Richmond FRB	Emerging Issues Surveillance Tool	Ranking	Biannual
St. Louis FRB	Community Development Outlook Survey	Ranking	Biannual
Boston FRB	Community Outlook Survey	Combination	Biannual
Cleveland FRB	Issues Insight Survey	Combination	Biannual
Minneapolis FRB	Ninth District Insight Report	Combination	Biannual
Reserve Banks using Non-Profit/NGO Stakeholder Sample:			
Kansas City FRB	Low-to-Moderate Income (LMI) Index	Diffusion Index	Quarterly
Dallas FRB	Community Outlook Survey (COS)	Diffusion Index	Quarterly
Philadelphia FRB	Community Outlook Survey	Diffusion Index	Quarterly
Board of Governors	Community Indicators	Combination	Quarterly
Reserve Bank using Small Business Stakeholder Sample:			
New York FRB	Small Business Survey		Annual
Atlanta FRB	Small Business Survey		Biannual

The latest survey results from the second half of 2012 provide some indication of thematic congruence and minimal geographical variation. The findings from the surveys using broad stakeholder respondents reveal: (1) unemployment and unavailability of jobs continue to be at the forefront of community stakeholder concerns, (2) home foreclosures and spillover effects are ranked second, and (3) concerns over budgetary cut-backs in local and state government appear as an emerging issue.

The results from the surveys employing only non-profit service providers generally corroborate the broader stakeholder respondent results: (1) non-profits typically echoed the same rankings and concerns as the broader stakeholder polls, and (2) the non-profit service providers also noted concerns over non-profit organizational capacity to meet the increasing demand for services from community members.

The findings from the small business stakeholder respondents generally indicate local economic and community conditions remain fragile: (1) credit needs were described as higher for younger (nascent) firms than more mature (established) firms, and (2) younger (nascent) firms indicated that they often use personal, family and savings as credit funding sources while more mature (established) firms rely more on commercial bank credit resources.

The structured questions from all of the surveys provide a quantitative assessment of local community economic development conditions across the Federal Reserve System. This real-time intelligence parallels the macro conditions tracked by various government agencies. The unstructured information content generated by the open-ended text responses from the community stakeholder respondents allows for the application of thematic cluster and sentiment analysis revealing community concerns unique to the geographical district of the respondents. At the same time, the results of the text analytics have helped corroborate newly emerging community issues captured in the structured questions. By employing a mixed methods approach (using both quantitative and qualitative methodologies), we are improving our ability to monitor rapidly changing conditions on the ground while capturing newly emerging issues useful to macroeconomic analysis.

3. Focus Groups and Community Forums

As a complement to the polling information described above, Federal Reserve community development staff engage community stakeholders by regularly hosting forums, events, roundtables and conferences on a variety of community and economic development issues. While these meetings have been a feature of the Fed's community development function since the function was established in the mid-1980s, there has been a more recent effort to develop more systematic and coordinated initiatives using this approach. There are two recent efforts that exemplify this approach – the first related to small business credit and the second related to low-income/low-wage labor markets.

In 2009 and 2010, the Federal Reserve convened a series of small business forums and focus groups that resulted in significant information gathering from transcribed stakeholder interviews, presentations and conversations. The ensuing analysis of the information by the Division of Consumer and Community Affairs was appended to the July 2010 Monetary Policy Report to Congress in Chairman Bernanke's testimony (<http://www.federalreserve.gov/newsevents/testimony/bernanke20100721a.htm>). The Reserve Bank information produced by the forums and focus groups provided a high level overview relevant to macroeconomic analysis.

Currently, Reserve Bank forums, events, roundtables and conferences focused on long-term unemployment and workforce development are underway and continue to generate regional information on community labor market issues (<http://www.federalreserve.gov/communitydev/long-term-unemployment-and-workforce-development.htm>).

4. Future Challenges and Next Steps

Creating a data monitoring framework that connects applied and actionable research with a variety of new survey technologies and methods brought about by the advent of web-based data collection systems is both a challenge and an opportunity. The unique mission of the Community Development function of the Federal Reserve System

has provided a multidisciplinary space in which to pilot a variety of survey and data collection techniques: web-based quantitative, qualitative, and mixed-methods surveys.

As our data results continue to accrue over time, we are exploring a number of refinements and variations that we hope will provide better results and insights. For example, we have utilized text mining software to analyze open ended survey responses and identify relationships and insights that would be difficult to identify simply from traditional analysis of these responses. We are continuing to refine our text mining approach and apply it to additional survey response data sets. In addition, we have experimented with a number of data mapping and spatial analysis approaches to increase our knowledge of and representation of geographical dispersion of specific policy issues.

Another approach that we are considering to enhance the value of the Community Data Initiative is to create a stratified national community stakeholder sampling frame that utilizes national lists of community stakeholders, for example, from sources such as Internal Revenue Service master files of non-profits and Census Bureau government sector agency master files. These files contain a broad universe of non-profits and public sector agencies, offering the potential for the identification of the subset of community stakeholder organizations and agencies serving low-income communities. These files or others with similar information offer the potential to develop a national community stakeholder survey that utilizes a randomly stratified web-based sampling design. This work is still in an early stage and we will continue to explore the extent to which conducting community-based polls using such a sample would offer a valuable point of comparison to the different types of surveys that are currently being utilized at the Reserve Bank level.

5. References

- Dattalo, P. (2010), Strategies to Approximate Random Sampling and Assignment, (Oxford University Press, Inc.: New York, NY)
- Das, Marcel et al, (2011), Social and Behavioral Research and the Internet, Volume in the Series of European Association of Methodology (Routledge, Taylor & Francis Group: New York, NY)
- Dillman, D. et al, (2009), Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method, 3rd Edition, (John Wiley & Sons, Inc.: Hoboken, NJ)
- Edmiston, K., (2013), "The Low- and Moderate-Income Population in Recession and Recovery: Results From a New Survey," Kansas City Federal Reserve Bank, *Economic Review*, First Quarter, (<http://www.kc.frb.org/publicat/econrev/pdf/13q1Edmiston.pdf>)
- Getz, P. and M. Ulmer, "Diffusion Indexes: a barometer of the economy," *Monthly Labor Review*, Vol.113, No.4 (April 1990), pp. 13-21
- Governor Daniel K. Tarullo (2009), "The Community Affairs Function," speech delivered at the *Interagency Community Affairs Conference*, held in Arlington, Virginia, August 25, (<http://www.federalreserve.gov/newsevents/speech/tarullo20090825a.htm>)