

VALUING NEIGHBORHOODS — DRIVING CHANGE

APPENDICES

LIVING CITIES NEIGHBORHOOD MARKETS PROJECT

Submitted by

The Brookings Institution Center on Urban and Metropolitan Policy
and
RW Ventures

DECEMBER 3, 2002



THE BROOKINGS INSTITUTION



TABLE OF APPENDICES

APPENDIX A: Methodology, Acknowledgements, Project Design Team, Interview Participants	3
APPENDIX B: Case Illustrations: The Power of Information	9
• Financial Services (Credit Scoring)	10
• Retail Services	13
• Government Resources (EITC)	17
• Housing Markets (Property Acquisition)	19
• Delivery of Social Services	21
• Business Development	24
• Neighborhood Typologies	27
APPENDIX C: Glossary of Referenced Organizations and Initiatives	31
APPENDIX D: The Role of Information Systems and Tools	40

APPENDIX A

Methodology

Acknowledgements

Project Design Team

Interview Participants

I. METHODOLOGY

Living Cities commissioned the Brookings Institution Center on Urban and Metropolitan Policy and RW Ventures to design a ten-year project focused on leveraging the power of information to drive change in urban neighborhoods. The four-month design phase explored the nature and role of information resources for community development, as well as the leading innovations in the field. This examination was undertaken for purposes of understanding the development opportunities, in order to determine how Living Cities could best support and leverage the work.

The team reviewed extensive literature on neighborhood economies, information assets, information applications for varied specific development sectors, and best practices. The project primarily proceeded through a series of interviews with nearly 100 scholars, researchers, funders, government officials, practitioners, advocates, business and technology executives, national nonprofit leaders, and others identified below. Team members also met with leading practitioners, and received demonstrations of major innovations. Finally, the team assembled a group of advisors at the Brookings Institution in November in order to solicit further insights and advice.

II. ACKNOWLEDGEMENTS

We are particularly grateful to the many individuals and organizations who so generously participated in meetings and interviews, shared their ideas and expertise, and guided us to further resources. They are listed below. At its best, this Report is primarily a reflection of their wisdom and experience. They are the leadership forging this new and exciting field.

We are also of course grateful to Living Cities for its demonstrated commitment to building healthy communities, its desire to understand and build upon this exciting information innovation in the economic development field, and for the opportunity to undertake this work.

III. PROJECT DESIGN TEAM

Bruce Katz, Director of the Brookings Institution Center on Urban and Metropolitan Policy, and Robert Weissbourd, President of RW Ventures, co-managed this effort. Jennifer S. Vey, Senior Research Analyst at the Center on Urban and Metropolitan Policy, was the senior staff member. The Design Team included specialists on particular aspects of the work: (in alphabetical order) Thalia Brown, Consultant; John Cleveland, Vice-President, IRN, Inc.; Robin Gaster, President, North Atlantic Research, Inc.; Sebastien Morel, BCT Partners; and Randal Pinkett, President and CEO, BCT Partners. Ricardo Bodini, Martha Caswell and Jack Kaplan served as project interns.

IV. INTERVIEW PARTICIPANTS

Richard Anderson
Principal
Integral Assets Consulting, Inc.

Rob Atkinson
Vice President
Progressive Policy Institute

John Bare
Vice President
Knight Foundation

Frank Beal
Executive Director
Chicago Metropolis 2020

Peter Beard
Vice President
Fannie Mae Foundation

Scott Bernstein
President
Center for Neighborhood Technology

Christopher Berry
Vice President of Research & Development
MetroEdge

Richard Bingham
Professor & Senior Research Scholar
Levin College of Urban Affairs
Cleveland State University

Eric Bobby
President & CEO
CitiKi, Inc.

Brian Bosworth
President
Futureworks

Xavier Briggs
Professor
John F. Kennedy School of Government
Harvard University

Paul Brophy
Principal
Brophy & Reilly, LLC

Virginia Carlson
Associate Professor, Urban Planning
University of Wisconsin - Milwaukee

John Cleveland
Vice president
IRN, Inc.

Joe Cortright
Vice President & Economist
Impresa, Inc.

Steven J. Downs
Senior Program Officer
The Robert Wood Johnson Foundation

William Drummond
Associate Professor, City & Regional Planning
Georgia Institute of Technology

Gayle Epp
Vice President
Abt Associates

Reese Fayde
Program Secretary
Living Cities

Joseph Ferreira
Professor, Urban Studies & Planning
Massachusetts Institute of Technology

Stephen Fitzgerald
Senior Vice President
Bank of America

Erin Flynn
Vice President
Futureworks

IV. INTERVIEW PARTICIPANTS (CONTINUED)

B. Keith Fulton
Executive Director
America On Line.

Shane M. Gallagher
Director Channel Development
Lightspeed Software, Inc.

Robin Gaster
President
North Atlantic Research, Inc.

Anne Habiby
Co-Executive Director
Initiative for the Competitive Inner City

Ed Hamlin
Founder & CTO
Peter Martin Associates

Rahsaan Harris
Executive Director
Playing2Win

Bart Harvey
Chairman & CEO
The Enterprise Foundation

Richard Hawkins
President & CEO
Peter Martin Associates

Ben Hecht
President & COO
One Economy Corporation

Doug Henton
President
Collaborative Economics

Shelly Herman
Senior Managing Director
Shore Bank Advisory Services

Colleen Hernandez
President
Kansas City Neighborhood Alliance

Ned Hill
Professor
Levin College of Urban Affairs
Cleveland State University

Ken Hodges
Director, Demography
Claritas, Inc.

June Holley
President
Appalachian Center for Economic Networks

Dan Immergluck
Assistant Professor
School of Public & Nonprofit Administration
Grand Valley State University

Kenan Patrick Jarboe
President
The Athena Alliance

Tom Kingsley
Director
Neighborhood Network Indicators Project
Urban Institute

Josh Kirschenbaum
Senior Program Associate
PolicyLink

Joel Kotkin
Senior Fellow
Davenport Institute
Pepperdine Institute for Public Policy

Peter Krasilovsky
Vice President of Consulting Services
Borrell Associates

Jody Kretzman
Asset -Based Community Development Inst.
Institute for Policy Research
Northwestern University

IV. INTERVIEW PARTICIPANTS (CONTINUED)

Bill Lilly
President
IMAPDATA

Bruce Edward Lincoln
Manager of Community Outreach
Institute for Learning Technologies
Columbia University

Susan Lloyd
Program Officer
MacArthur Foundation

George McCarthy
Program Officer
Ford Foundation

Myrtis Meyer
Director, Research and Planning
YMCA of the USA

Harold Miller
President
Allegheny Conference on Community Dev.

John Monahan
Senior Fellow
Annie E. Casey Foundation

Mario Morino
President
The Morino Institute

Gabriella Morris
President
The Prudential Foundation

John Nelson
President
Community Web

Craig Neumark
Founder
Craigslist

James Nixon
Founder, Chair & CEO
Progressive Trade Securities Inc.

Jeremy Nowak
Executive Director
The Reinvestment Fund

Manuel Pastor Jr.
Professor, Latin American & Latino Studies
Director, Ctr. for Justice, Tolerance & Comm.
Merrill College, University of California

Ken Paul
Engineering Department
United States Postal Service

John Pawasarat
Employment & Training Institute
University of Wisconsin-Milwaukee

Randal Pinkett, PhD
President & CEO
BCT Partners

Peter Plastrik
President
Integral Assets Consulting, Inc.

Ray Ramsey
Chairman of the Board & CEO
One Economy Corporation

Andrew Reamer
Principal
Andrew Reamer & Associates

Steve Redburn
Chief of the Housing Branch
Office of Management & Budget

Mary Lynn Reilly
Chief Executive
Social Compact

IV. INTERVIEW PARTICIPANTS (CONTINUED)

Martha Riche
Former Director
Census Bureau

Cynthia Taeuber
Program Policy Advisor
U.S. Bureau of the Census/ University of Baltimore

Jeffrey Robinson
Doctoral Candidate
Columbia Business School

Jennifer Tescher
Managing Director
Shorebank Advisory Services

Michael Rubinger
President & CEO
New York LISC

Darren Walker
Director, Working Communities Division
Rockefeller Foundation

Pari Sabety
Director, Technology Policy Group
Fisher College of Business

Dennis White
Vice President,
Corporate Contributions & Social Investments
Metropolitan Life

Daniel Sheehan
Special Data Specialist
Information Systems Dept.
Massachusetts Institute of Technology

Jim White
Senior Program Director
Kansas City LISC

Paul Sill
President
Forum Analytics

Sam White
Professor, Urban Planning
University of Wisconsin - Milwaukee

Steve Snow
President
US Association for Community Networking

Stockton Williams
Policy Director
Enterprise Foundation

Julia Stasch
Office of Grants Management
The MacArthur Foundation

Mark Willis
Executive Vice President
Community Development Group
J.P. Morgan Chase

Michael Stegman, PhD
MacRae Professor of Public Policy
University of North Carolina – Chapel Hill

Betsy Zeidman
Center for Emerging Domestic Markets
Milken Institute

APPENDIX B

Case Illustrations: The Power of Information

Following are seven “cases” illustrating the strategic use of information to move market and service systems to productively include urban assets, people and places. The cases reveal the extraordinary range of opportunities with respect to different types of information, tailored to varied users and development outcomes. They also provide more detailed examples of the issues and activities entailed in developing information resources.

- 1. Financial Services (Credit Scoring)**
- 2. Retail Services**
- 3. Government Resources (EITC)**
- 4. Housing Markets (Property Acquisition)**
- 5. Delivery of Social Services**
- 6. Business Development**
- 7. Neighborhood Typologies**

CASE ILLUSTRATION 1

FINANCIAL SERVICES

The financial services sector has been one of the first and most dramatically impacted by information technology over the last few decades. Money itself has become digital: as a result, data, information and access have become key drivers of financial markets. These changes create major opportunities to extend financial markets to better serve lower income consumers.¹ Shorebank's MetroEdge, for example, is undertaking national survey work to produce a new segmentation of lower income consumers.² Milken Institute is examining a number of information based strategies to expand lending to small and minority businesses.³ Leading mainstream and alternative financial services institutions are developing data and networks to expand their services to this market.⁴

Example: Data for Credit Scoring

Credit scoring predicts the creditworthiness of an individual applicant by comparing selected information about the applicant to the performance results of a massive sample of past borrowers. In mainstream financial markets, credit scoring has become increasingly prevalent, since it increases the efficiency and productivity of the underwriting process, driving down the costs of lending. In economic terms, it's an information system that reduces the costs of production (by being quicker) and reduces the exchange costs (by assessing risk better), increasing the supply of loans. However, sufficient credit data is often unavailable to develop and apply credit scoring models to lower income consumers.⁵ In effect, an "information imperfection" prevents the credit market from serving lower income consumers as well as it does mainstream consumers.

What difference would this information resource make? What outcome could be achieved?

The immediate goal is to increase provision of credit products to lower income consumers. Ultimately, the goal is to expand access to other financial products, and then lead to building other assets. Credit is often what gets people in the door for their first bank account, or leads to the purchase of their first home.

¹ Much of this background, and many of these opportunities, are detailed in: Weissbourd, "Banking on Technology: Expanding Financial Markets and Economic Opportunity," Brookings Center on Urban and Metropolitan Policy (June 2002).

² Lower income financial consumers in fact fall into many distinct segments, with different product demands and market capacity. Thus, the working poor are in quite different circumstances than recent immigrants or those suffering from one-time financial crises or the chronically unemployed. Unlike the higher income segments, very little work has been done to allow providers to differentiate and target products appropriately to lower income segments, impairing market functions by increasing the costs to providers, and as a result reducing services.

³ Yago, Zeidman & Schmidt, "Creating Capital, Jobs and Wealth in Emerging Domestic Markets," Milken Institute (forthcoming)

⁴ "Banking on Technology," *ibid.*

⁵ The problem actually has several related components: lower-income borrowers are often underrepresented in the data sets; the data collected relies on conventional measures, such as mortgage payments, which are less available for lower-income borrowers; and sometimes the models themselves are flawed with respect to lower income consumers (or, as a result of the first two challenges, the models are just not available).

Who are the target users?

Primarily financial service institutions, but all providers of financial services or other products and services that are based on credit evaluation.

What's the "utility" of the information? How does it cause change?

This falls in the category of "moving markets" or "making markets work" (as distinct from strategic planning or policy): by providing better data and systems for evaluating the creditworthiness of lower income consumers, the financial providers will be able to underwrite and make loans to these consumers that they could not otherwise make.

What information resource will make the difference?

Two related information resources would ideally be developed: (1) *data* sets, particularly data on alternative measures of creditworthiness;⁶ and (2) enhanced credit scoring models (a new *knowledge* asset).

What are the information issues? What is the next stage of development?

While several initiatives are underway that begin to address elements of this idea (and there's a great deal of expertise available on credit scoring), this example would be a new initiative, so significant groundwork needs to be done before implementing it in the marketplace.

1. Initially, alternative variables and data sets need to be identified that likely would serve as accurate predictors of creditworthiness. Rental payment history has been recommended as a particularly good alternative variable for lower income consumers. "Credit card, student loan, and car payments all show up on credit reports, but the largest expenditure for nearly 40% of Americans—rent—is never tracked."⁷ Utility payments have also been suggested as an alternative data set. The larger, more credible members of the check cashing industry (i.e. ACE, FSCA) have built considerable databases on the transactional history of their customers that would also likely prove valuable. So the initial information resource to be developed is these alternative data sets, initially for a pilot sample of borrowers. Later, once proven, the project would support the creation of systems to routinely collect the relevant data – a "rental registry," for example. One interesting model is a new business called Pay Rent, Build Credit, Inc, which has developed a software to track rent payments (using electronic transfer systems in arrangements with landlords, tenants and banks). This company will also collect the data and make it available to credit bureaus.
2. Information on these variables must be collected from individual borrowers on a sufficient number of loans (in the thousands, at least) to build a credit scoring model which

⁶ Note that while in this example we are proposing collection of the data in order to build credit scoring models, the data sets are themselves useful if credit bureaus would ultimately pick them up, allowing lower income consumers without conventional indicators of creditworthiness -- such as mortgage and credit card payments -- to establish credit history.

⁷ "Renters Getting a Chance to Make Credit," American Banker, November 1, 2002

incorporates these variables. Once built, the model could be further tested, refined, then rolled out to the industry.

Who's already out there doing this?

A wide range of non-profit and business organizations work on credit data, indices of creditworthiness, credit repair and development of credit scoring models. Fair Isaac is the leader in developing credit scoring models, and is currently undertaking a pilot to develop an alternative model for a micro-lending program. Fannie Mae and Freddie Mac are reportedly working on alternative indicators of creditworthiness, and on new underwriting models for lower income consumers. More investigation is necessary to understand the challenges of collecting rental or utility data at any large scale (other than from individual borrowers).

Conclusion

Alternative data sets to establish creditworthiness would themselves provide important information, enabling some credit markets to move towards serving more lower income consumers. Building better credit scoring systems using this data could drive down the costs and risks of lending, and could ultimately substantially increase lending to lower income consumers.

In order to move this forward, experts need to be convened, partners and pilot sites need to be identified, data collection systems need to be evaluated, and a pilot needs to be implemented in connection with one or more financial institutions.

CASE ILLUSTRATION 2

RETAIL SERVICES

Information has always been a critical commodity in the retail sector, where enormous amounts of money are spent on market analysis and market acquisition. As we move from a “product-push” to a “consumer-pull” society—one in which retailers aspire to deliver highly customized products to each differentiated consumer segment—new data collection and analysis technologies have made specialized information even more important. However, as the market elsewhere becomes more efficient, inner-cities are left out: the data, variables and models available from conventional providers under- and mis-represent inner-city markets and consumers, making it impossible for retailers to efficiently serve them.⁸

Indeed, one starting place for the community development field’s emerging understanding of the power of information was the retail sector, and the focus on why it was under-serving certain communities. Several years ago, Shorebank (now its MetroEdge division) began working with Social Compact to provide new data and communications about retail and commercial service opportunities in the inner city. The Initiative for a Competitive Inner City was another early innovator in this field. Each organization has now developed distinct focus and expertise with respect to data, models and research.

Example: Data for Estimating Inner-City Retail Market Opportunity

Considerable work has been done in the retail development sector. This work has confirmed that information gaps do plague the industry, and that better information can indeed move retail markets to better serve inner-city areas. This work has also made substantial progress in identifying some of the most important data and knowledge needs to move the market further and more systematically. However, significant challenges have also been identified, and much of the work has been highly anecdotal. Several opportunities exist that would help take the sporadic learnings and work to scale: (1) specific data sets have been identified as important that exist, but are difficult to assemble —making these more systematic and accessible would be enormously useful; (2) several areas of new data needs have been identified, and systems for their collection should be created; and (3) progress is being made on developing better models tailored to inner-city segments; this work should be supported and expanded, and taken to market more broadly, both for use by retailers and by conventional market information and analysis companies.

What difference would this information resource make? What outcome could be achieved?

Better data and models reveal the untapped purchasing power of inner-city markets; reduce market selection, entry and acquisition costs; and so enable retail and service providers to better identify and serve inner-city markets. The increased provision of goods and services improves the quality of life for neighborhood residents, provides new jobs and

⁸ For more detailed analysis, see Weissbourd and Berry, “The Market Potential of Inner-City Neighborhoods: Filling the Information Gap,” Brookings Center on Urban and Metropolitan Policy (March 1999).

entrepreneurial opportunities, and ultimately increases the competitiveness of these communities.

Who are the target users?

Businesses (from Home Depot to State Farm Insurance).

What’s the “utility” of the information? How does it cause change?

This is the classic example of the use of information to “move markets” by addressing a market information imperfection.

*What information resource will make the difference?*⁹

Several data sets are repeatedly mentioned as important and relatively hard to assemble:

1. Income tax data
2. Sales tax data
3. Building permits
3. Housing sales and values
4. More accurate business establishment data (type, employment, performance)
5. More accurate updated population estimates
6. Daytime population estimates¹⁰

Better estimating the unrecorded economy (and otherwise improving the core income data) is also critical, and requires more research to establish what alternative variables and data sets should be utilized.

The conventional models that guide retailers to markets—both sophisticated segmentation models and market predictive models—also are often inappropriate and ineffective for inner-city market analysis. Using new data, better models are being developed.

What are the information issues? What is the next stage of development?

There are at least three challenges to moving the data work forward: (1) much of the data is available or is best collected locally, but retailers need national (or at least regional) data sets for systematic decision making; (2) assembling data from disparate administrative agencies presents significant barriers; and (3) some original data collection is needed. In addition, there are major opportunities to create knowledge assets to move the mainstream providers of market data and analysis: MetroEdge, for example, is working with Claritas on a micro-segmentation system for urban markets to complement its current products.

⁹ For a more detailed framework examining the factors that drive retail market selection, the variables and data used to examine each factor, and existing and alternative variables and data sets to improve the process for inner cities, see MetroEdge Framework: A Tool for Inner City Business Location Decisions (this is a confidential document available to Living Cities upon request). For further explanation of some of the uses of alternative data sets, see Pawasarat and Quinn, “Exposing Urban Legends: The Real Purchasing Power of Central City Neighborhoods, Brookings (June, 2001).

¹⁰ Inner-city areas often have much different daytime populations (of interest to retailers), as a result of workforce that comes in to hospitals, universities, banks and other major institutions located in inner cities.

The underlying challenge with much of this data is that it exists and is best collected locally—ideally, regular up-to-date collection of highly localized, specialized data is most valuable—while at the same time companies need to systematically collect data covering large geographies, to efficiently build models and make decisions across large markets. There are some national systems to collect detailed local data, most notably the Census and the IRS, as well as some national systems to gather data collected locally (such as crime and disaster data), but they do not collect much of the relevant data in a timely fashion, nor routinely make it available in useful forms.

Much of the desired data is currently collected, but by administrative and regulatory agencies for their own purposes. Obtaining it for market analysis purposes presents bureaucratic, confidentiality, data form, compatibility, documentation and data quality issues.¹¹ To date, a few development organizations have acquired these data sets for particular places, or a few data sets for multiple locations, but the process is individualized, time consuming and highly duplicative.

This work can be more systematically advanced on several fronts: Coordinating existing data collection for inner-city retail business attraction; launching pilots across multiple cities to standardize and share core administrative data sets; advocating at the federal level for making key currently collected data more available; and advocating for collection of targeted new data.

Who’s already out there doing this?

Social Compact has focused on getting deep alternative local data for particular neighborhoods. While also getting specialized local data, MetroEdge has been more concerned with building a systematic database covering major markets and focused on building better models and knowledge products for businesses. ICIC has supported original national data collection on particular issues (e.g. retail shopper survey; IC100), and been most focused on data related to local business development. The approach, though, has taken hold: community groups and development agencies across the country are—with the help of these groups and others—gathering their local data sets and trying to move retail markets by providing better information about their opportunities. A mark of early success of this approach is the extent to which major consulting firms, as well as new specialty firms, have begun developing and marketing product lines to help large businesses target “emerging inner-city markets.”

Conclusion

A great deal of progress has been made in demonstrating the power of information to move retail and commercial markets towards better serving inner-city consumers. Specific data has been proven useful that, if collected and made available systematically, could take this work to scale. This requires championing the release of targeted federal data, piloting systems for

¹¹ See, “Developing Community Statistical Systems With American Community Survey Summary Profiles and Administrative Records,” Cynthia M. Taeuber (available from author).

collecting, standardizing and sharing specific local administrative data across multiple cities, and using the data to develop new information products (such as inner-city segmentations, specialized site selection models, or other tools that “mainstream” the data to businesses and conventional intermediaries).

CASE ILLUSTRATION 3

INFORMATION ON GOVERNMENT RESOURCES

Focusing on information resources reveals that service systems have features analogous to market systems (products, consumers, distribution networks, transaction costs), and are similarly dependent on information. A significant part of the economies of all places, but particularly of inner-city neighborhoods, consists of government payments and transfers. Spatial information on these payments is currently not well tracked or readily available, and could improve the effective distribution of the benefits, analysis of the programs, and policy development.

Example: Data on EITC

The Earned Income Tax Credit (EITC) is a government program which allows eligible lower income workers to apply for, in effect, a tax rebate. This people-based investment has proven to be a very substantial source of funds for lower income residents in inner-city neighborhoods. At the same time, though the credit has been available for nearly three decades, major under-utilization has surfaced: many eligible people do not know about or apply for their benefits.

What difference would this information resource make? What outcome could be achieved?

The goal would be to increase application for and distribution of EITC payments.

Who are the target users?

Numerous development organizations, both general neighborhood organizations and specialized benefit or even EITC programs, are interested in helping their constituents access benefits. Intermediary organizations are also emerging who will help local organizations develop the capacity and programs to assist eligible residents.

What's the "utility" of the information? How does it cause change?

This information falls in several categories of uses: (1) it will be used by intermediary organizations for strategic planning—to identify target areas where EITC is particularly underutilized and so direct their efforts to local organizations in those areas; (2) it can be used over time by government for policy purposes—to understand the effectiveness and take-up rates of the program, and make appropriate adjustments; and (3) although not an economic market, there's an analogous service market information function—the information makes the delivery (exchange or transaction cost) function more efficient by facilitating beneficiaries (demand) in finding the benefits (supply).

What information resource will make the difference?

Mapping the geographic distribution of EITC benefits against standard demographic data indicating low income areas would quickly reveal where the most untapped potential exists to target initiatives to help beneficiaries apply for the program.

What are the information issues? What is the next stage of development?

This is a new idea that may confront standard issues with respect to administrative data: bureaucratic resistance; format and confidentiality issues. These should all be relatively easily surmountable for this data set, but work is required to more thoroughly analyze the data and program, advocate for and work with the relevant agencies to assemble the data from individual records in a way that is geo-coded for small geographies but does not reveal any individual characteristics, and to address similar issues.

A critical second component to the work is to convert it to “actionable knowledge” – otherwise it will just be another data set sitting on a shelf or web site. A companion set of work needs to identify and engage the intermediary organizations that could take the data and use it to target their activities and to engage further organizations in local sites where untapped EITC opportunity is high. These organizations should be convened early in the process to make sure the data is collected and made available in relevant and easily usable forms.

Who’s already out there doing this?

Brookings has begun this work. Numerous local and national and local groups (ranging from Ford Foundation to Shorebank) have supported or undertaken major EITC initiatives.

Conclusion

EITC data development and dissemination could substantially enhance efficiency of the program, expand distribution of benefits and inform further program and policy development.

CASE ILLUSTRATION 4

DATA TO MOVE HOUSING MARKETS

Myriad types of information fuel and drive housing markets.¹² What follows is intended to be a narrow illustration of the use of particular housing data to improve housing production.

Example: Data for Property Acquisition

As developers of housing look for and acquire properties for development, they seek (among other sources) vacant and abandoned properties. In addition, they often look to acquire these properties through tax reactivation mechanisms in which governmental agencies sell seriously tax-delinquent properties. Particularly with respect to affordable housing development, such properties offer inexpensive stock that, once developed, can have positive neighborhood impacts. Unfortunately, the methods used to collect information on vacant land and abandoned buildings in many cities are rudimentary, making it time consuming and inefficient to obtain data on vacant stock and its tax status.

What difference would this information resource make? What outcome could be achieved?

The goal is to allow the housing market, particularly the affordable housing sector, to produce more housing or housing at less cost by reducing the information costs associated with property acquisition.

Who are the target users?

Affordable housing developers.

What's the "utility" of the information? How does it cause change?

This falls in the category of information as a market moving mechanism. Interviewees in this field consistently identified the difficulty getting timely and accurate information on vacancies, abandonment and tax status as a significant barrier and an added cost of doing business. In economic terms, the production process in the market has an information cost that could be reduced (roughly analogous to an inventory tracking system in manufacturing), moving the supply side of the market. As a result, more affordable housing could be developed at lower cost.

What information resource will make the difference?

Systematic, up-to-date, easily accessible data on vacancies and tax status of properties.

¹² Housing information is also critical to moving other markets, as well as to planning and policy on varied subjects. Other cases illustrate the importance of housing data for analyzing retail markets and for developing neighborhood typologies.

What are the information issues? What is the next stage of development?

Municipalities and government agencies routinely obtain data on vacant and abandoned properties, as well as their tax status, that is publicly available. Unfortunately, the quality of the data, of the systems to house it, and particularly of the user interfaces (how people can get at the data, in what form, etc.) is at best highly uneven. Many cities and independent agencies are working on aspects of these challenges. The standard issues concerning administrative data (bureaucracy, confidentiality, standardization, quality) need to be addressed, and best practice systems to house and share these data sets need to be developed.

Who's already out there doing this?

While the sophistication of systems varies significantly, cities are increasingly relying on computerized databases and GIS to house information on abandonment, tax status, and other property features. Map Milwaukee, for example, has installed a state-of-the-art website that lets users create customized maps showing parcel-level information.

As noted in other cases, this information is also enormously useful to guide neighborhood analysis and strategic planning, to enable organizing to address housing issues, to inform policy and distribution of government resources and otherwise to better understand neighborhoods. Enterprise and others built a system to track vacancies in Baltimore; vacancies and tax status are amongst the extensive housing data sets Kansas City Neighborhood Alliance uses for organizing and development in Kansas City; the Reinvestment Fund includes this data in its housing typologies work; Neighborhood Knowledge LA in Los Angeles, and the Center for Neighborhood Technology “NEWS” (Neighborhood Early Warning system) in Chicago, both obtain much of this data. Of course, individual CDCs and developers in cities across the country are working to gain access this data. These are the people telling us it would be enormously helpful to find ways to get it more systematically.

Conclusion

Developing and piloting systems to help cities better standardize and make available key data on property vacancies, abandonment and tax status would drive down the costs of producing—and so expand the supply of—affordable housing.

CASE ILLUSTRATION 5

DELIVERY OF SOCIAL SERVICES

Just as information is important in moving markets, information assets also drive efficient service delivery. Current social service procedures are very inefficient, with individual agencies each managing their own eligibility screening and intake procedures. As a result, applicants get discouraged, take-up rates for benefits such as the Earned Income Tax Credit are low, and service providers experience frustration and additional costs. The Government Accounting Office suggests that \$4.7 billion in EITCs are not taken up annually, and that more than 70% of Medicare applicants are initially screened for the wrong program, to give only two of many examples.

This endemic problem is now being addressed by several localities and technology companies, who have focused on the creation of universal intake and eligibility screening systems which cover all agencies in a given locality, and which automatically direct beneficiaries to all of the benefits for which they are eligible.

Example: Systems for Welfare Services Delivery

Until very recently, local social service agencies each conducted their own registration and screening interviews, using computers (if at all) simply to make electronic notes and to provide a basis for required state and Federal reporting. Case workers had little systematic knowledge of programs outside their own agency, and even less information about whether the applicant in front of them would actually be eligible for other programs. Applicants were largely on their own to move on to the next agency, make an appointment, and go through the same process over again. In effect, clients have been trapped in an atomized world of separate agencies, each of which may or may not have something to offer a given applicant.

New technologies can now provide a single electronic intake and screening program which contains all of the eligibility rules for all programs available in a local area (private, local, state, and Federal). Universal screening automatically identifies programs for which applicants are eligible, and then refers them electronically to the appropriate agency. Detailed applicant data generated through the intake process is then used for subsequent outcome tracking, strategic planning, and public policy.

What difference would this information resource make? What outcome could be achieved?

The immediate objective is to make service delivery much more efficient, ensuring that applicants access more of the benefits for which they are eligible, including the EITC. In addition, the new system would create very detailed data on service delivery procedures and outcomes, allowing for improvements in policies and in administration.

Who are the target users?

Initially, service providers; in the medium term, some systems aim to permit direct access for applicants via the Web.

What's the "utility" of the information? How does it cause change?

Analogous to moving markets, this work improves the efficiency of the social services delivery system, and at the same time creates the detailed data needed for effective strategic planning and public policy.

What information resource will make the difference?

The collection of eligibility rules combined with the technology for guiding applicants through them are powerful information resources. New technologies have now made it possible to collect and parse all the complex rules that govern eligibility for thousands of programs in the government and in private welfare agencies. The process for sorting and applying these rules is called the rules engine, and it provides a decision tree that governs the interview process: each answer from the applicants helps to eliminate programs and moves the applicant one step further toward applying to one of the programs in the system. Eventually, the interview goes far enough that eligibility is determined, and an electronic referral is made.

This automated referral ensures 1) that applicants get access to the entire pool of possible benefits, rather than just those known to the individual case worker on the other side of the desk; 2) that applicants do not waste time, effort and energy applying for programs beyond their eligibility; 3) that the transaction costs of referrals for applicant and agency are dramatically reduced.

At the same time, as detailed information is tallied about each applicant, the screening system is creating a comprehensive database of information about applicants (by demography, geography, skill set, etc.—essentially by any question contained in the interview). Information is also accumulated about the programs to which they are referred. Over time, the system also tracks outcomes through return visits. All these data are potentially of great impact in helping design benefit programs, as well as in improving their administration.

What are the information issues? What is the next stage of development?

The service providers and government agencies rolling out these systems face normal bureaucratic and funding challenges, the difficulties of creating momentum for change across multiple agencies, and now the severe state budget crunch. The existing pilots need support for evaluation, further testing and refinement. Collaboratives and seed funding would also catalyze quicker dissemination and rollout. Development and maintenance of a shared rules library covering national programs like EITC and state programs like Food Stamps could also significantly reduce development and expansion costs. Immediate steps might be to

convene an evaluation team to conduct initial assessment of early movers in this market, and to design a small seed grant program.

Who's already out there doing this?

Several localities have begun building rules-based engines for automated eligibility screening, in places ranging from Clay County in rural Minnesota to the state of New Jersey. The movers behind these systems have already generated support from a critical mass of relevant agencies. All of these systems are in early stages of development or rollout.

A number of companies have built or are building universal intake and screening applications. HelpWorks from Peter Martins Associates may be the most advanced of these systems, but other companies ranging from Real Benefits and Community Services Network to Deloitte and Touche are also active.

Conclusion

The fact that commercial providers are beginning to operate in this space indicates that these information resources are already improving welfare services delivery. Their enhancement, deployment and adaptation to other service systems could provide similar benefits.

CASE ILLUSTRATION 6

BUSINESS DEVELOPMENT

One of the increasingly prevalent strategies in the business development field focuses on creating networks of related and complementary enterprises. These take many forms, from flexible manufacturing networks to regional sectoral clusters to neighborhood business organizations. They are becoming more important partly because smaller businesses (often de facto operating in flexible networks) are playing larger roles in driving the economy, and partly because in the knowledge economy, these networks increasingly foster innovation and entrepreneurship. The key ingredient in this development strategy is information—about what businesses are present in what sectors and geographies, and about their interrelationships. This information is the backbone for creating, and the continual value-added output of, both horizontal networks and vertical supply chains.

Example: Data for Identifying Business Clusters

What difference would this information resource make? What outcome could be achieved?

The goal is to enable businesses and business developers to better create business to business relationships (either horizontal, as in shared purchasing or joint bids; or vertical, as in supply chains). The lack of accurate, timely data, particularly for small geographies like neighborhoods, impairs formation of these relationships, and so hampers business development.

Who are the target users?

Business organizations and business development professionals.

What's the "utility" of the information? How does it cause change?

This data would be used both for strategic planning and to improve business to business market functions (by reducing transaction costs and improving the market "exchange" function). A new data collection process and product tailored to the needs of businesses and business developers that improves the accuracy and detail of business characteristic data down to the neighborhood level would lead to a better understanding and eventual strengthening of the local business base. Such an accurate and frequently-updated data source would allow neighborhood developers and businesses to identify general business landscape features and opportunities, to identify one another, and to establish business to business connections within the neighborhood, and between neighborhood businesses and regional clusters. Better data sets on businesses are also needed for labor force, neighborhood typology and other strategies (see other case studies).

What information resource will make the difference?

The core information required for each business establishment is the nature of the business (by SIC code), the number of employees by occupational category, its precise location(s), and economic performance indicators. While collected at the establishment level, the data would have to be aggregated and then made available in forms that did not allow identification of individual establishments. Ultimately, business organizations and organizers that form networks develop much richer data on individual establishments and their relationships, but the core information is a necessary first step to allow analyzing and targeting the opportunities for business networks.

What are the information issues? What is the next stage of development?

There are many business-related data inventories currently available. Among the most frequently used are: (1) Dun and Bradstreet's Dun's Market Indicators (DMI), a privately-owned business listing that is often used as a source for credit ratings; (2) the Harris Directory (Harris), a privately-owned source that uses local chambers of commerce, state development agencies, local newsletters and other sources to compile a directory; (3) the Yellow Pages; and (4) several other private sector business data sets, such as InfoUSA, that often assemble the available public sets and do additional phone or other data collection to check and enhance them.¹³ Public sources include: (1) Covered Employment and Wage program records (ES202) -- originally reported to the states, but gathered by Bureau of Labor Statistics to track compliance with unemployment insurance, these records are available at sub-state and sometimes sub-county level and are organized by SIC codes; (2) several national business censuses (e.g. the economic census, census of retail trade); and (3) compiled lists from these and other sources (e.g. the Longitudinal Establishment Dataset) which are not made broadly available in useful forms.

These sources, though very useful for some applications, are insufficient for neighborhood development analysis and initiatives. The major underlying public sources generally are not sufficiently available at small geographic levels. All of the sources, but particularly the private ones, tend to undercount small enterprises, are prone to miscounts of operating businesses because of starts and closings in the lag times between updates, and are limited in the detail they provide about what businesses actually do.¹⁴

Businesses, business organizations, practitioners and analysts have all suggested that small business data needs to be more routinely and systematically collected. It has been suggested that a web-based system of required quarterly self-reporting of core small business data be established.

The first step towards creation of an improved data set is to analyze the existing sources. This would require a comprehensive inventory of current business data systems—a scan of what is out there and of the present data limitations. This background work would inform the

¹³ Carlson, Virginia, "Targeting Job Opportunities: Developing Measures of Local Employment," *Economic Development Quarterly*, 12(2), 137-149 (1998).

¹⁴ See, generally, Carlson, Virginia, "Identifying Local Businesses: a Comparison of Business Listing Databases," *Economic Development Quarterly*, 9(1), 50-59 (1995).

creation of data collection strategies. Some strategies for certain types of data (especially detailed or qualitative) would be developed for use at the neighborhood level, whether face to face or automated. Other core sets might be collected at the national level with new systems, or assembled from existing systems. The suggested collection and dissemination techniques would be tested in several pilot locations. Once methods are proven, they could be rolled out at the national level.

Who's already out there doing this?

The Allegheny Conference on Community Development has organized business networks encompassing hundreds of businesses across neighborhoods. IRN works with a die and mold builders network in mid-Michigan where knowing the firms and their capacities is the key information resource to creating their joint capacity. June Holley at AceNet uses network software to map not only the passive core assets of firms, but the dynamic, qualitative connections and information and deal flow amongst them. ICIC's Boston affiliate uses this information to develop neighborhood business typologies. These are just a few of the myriad examples of how business information is currently gathered and deployed. In addition, a range of scholars and private sector organizations are gathering specific business data and developing varied analyses, though rarely specialized to urban neighborhoods.

Conclusion

The provision of a data source that paints a picture of how the local business economy is doing and working in real time would be a very powerful tool for a range of neighborhood development and business market activities. The data that could drive this change could be made more available by advocating and working with the major current sources (BLA, Census) to make existing data more accessible, as well as by supporting further work to identify valuable local data and developing and piloting systems to collect it.

CASE ILLUSTRATION 7

DEVELOPING NEIGHBORHOOD TYPOLOGIES

Creating neighborhood typologies is one way of categorizing neighborhoods (or other geographies) based on their characteristics, assets, and competitive advantages. Creating typologies requires first developing the underlying data needed for the cluster analysis. The two together allow government and development organizations to escape a “one size fits all” approach to development, and instead permit them to strategically identify the unique characteristics and opportunities of particular neighborhoods. Ultimately, localities should create typologies for neighborhoods and groups of neighborhoods along varied dimensions (housing, business, demographic), as well as for the larger systems (cities and regions and market areas) in which neighborhoods and their assets play or should play a role. At the same time, dynamic systems models need to be developed to complement the typologies (which are more like snapshots), in order to identify trends and drivers of connections and change.

Example: Neighborhood Housing Typologies

One of a city’s greatest assets is its current housing stock and its available land for new residential and commercial development. This asset goes underutilized, however, as many cities collect limited amounts of information on land and housing, and/or fail to make that which they do collect transparent and accessible.

Taking an inventory of data on local housing is essential to a city’s ability to understand neighborhood market conditions, and to develop strategies that are responsive to varying needs. For example, local governments need to be able to seize the opportunity to reuse vacant and underutilized property for residential development in areas where markets have strengthened and land is in demand. They must also recognize where markets are weaker, and develop appropriate short-, medium-, and long-term strategies for properties in those areas.

Gathering data is only a first step a city should take to understand neighborhood housing markets, however. Raw numbers become infinitely more useful if they are converted into descriptive tools. Some cities, for example, have developed classification systems for every city neighborhood based on their market conditions. Classification systems range from fairly simple categorization exercises to application of sophisticated factor and cluster analyses. These ‘typologies’ place neighborhoods with similar characteristics into categories—usually ranging from robust and healthy to abandoned and declining, with ‘stable’ and ‘transitioning’ neighborhoods in between. Such typologies can guide governmental decision-making, so resources and strategies can be targeted appropriately.

What difference would this information resource make? What outcome could be achieved?

The goal of developing neighborhood typologies is to promote wiser and more appropriate investment of scarce government resources in order to improve neighborhood conditions,

stimulate market activity where feasible, and ultimately make city neighborhoods more competitive with surrounding suburbs. Local governments can utilize neighborhood typologies for strategic planning purposes. By categorizing neighborhoods into clusters, cities can better target resources to varying market types. These targeted strategies aim to meet the immediate and long-term needs of the individual neighborhoods, while prioritizing actions that will stimulate investment and ultimately benefit the city at large. Ultimately, a better national understanding of the varying conditions, and needs, of different neighborhood market types could help influence how federal and state government shape future policies and programs for housing and economic development. Neighborhood typologies also serve the goal of helping neighborhood development practitioners better identify and tailor interventions to their particular circumstances and opportunities.

Who are the target users?

Local governments and neighborhood development organizations.

What's the "utility" of the information? How does it cause change?

These information resources (underlying housing data for typologies and particularly the housing typologies themselves) fall in the categories of information for strategic planning and to move policy. Making data and typologies available would help move neighborhood development organizations and governments to better tailor their interventions to particular types of neighborhoods and opportunities.

What information resources will make the difference?

There are actually three steps here, entailing each of the three types of information assets: (1) the necessary data is collected on the relevant variables for the cluster or other analysis used to create typologies; (2) the knowledge in the form of neighborhood housing typologies is created; and (3) it is made available through user friendly information tools. Thus, data on neighborhood housing market conditions would be collected and analyzed to create clusters, or typologies, for neighborhoods with similar market characteristics. This information would be built into a GIS mapping system that illustrates where different cluster types are located. Such a system could also allow users to map specific variables—the location of vacant parcels, for example—at different geographic scales.

What are the information issues? What is the next stage of development?

Any government that wants to make better informed decisions on how to allocate resources should be able to answer some basic questions, including:

- Where are the vacant land and buildings?
- What is the condition of the supply?
- How are the parcels zoned?
- Are they in strong or weak market areas?
- Who owns the parcels?

- What is their tax status?
- What are their current market values?
- What properties might be in danger of becoming abandoned?

To answer these questions, cities must have effective tracking and inventory systems in place. The sophistication (and capacity) of these systems varies significantly across the U.S., though cities are increasingly relying on computerized databases and other tools that house information and allow customized mapping of different variables and different geographies. In developing these systems, cities need to recognize, and where possible correct, gaps in current data collection practices. Data sets need to be readily accessible, reliable, up-to-date, and uniform throughout the city.

Once data is collected, cities (likely in partnership with a local university or other organization) should create a statistical methodology for developing clusters of similar market types. There are many methodologies for creating typologies appropriate for different variables, questions and applications, and current models need to be further developed and tested, as well as new models created. Ultimately, the goal is to produce replicable models for collecting local housing data, creating neighborhood clusters, and using cluster analysis to make better informed investment decisions. These models would have the potential to become an ‘idea virus’ that causes routine data collection and analysis on neighborhood housing markets in cities nationwide, and fundamentally changes the way local governments and neighborhood organizations set priorities, allocate public resources, and help stimulate private sector investment.

Who’s already out there doing this?

Several cities, including Philadelphia, Baltimore, Washington DC, and Kansas City have developed varied levels of specialized neighborhood housing data and neighborhood typology systems. In 2001, the City of Philadelphia launched a citywide planning approach called the Neighborhood Transformation Initiative (NTI), a five year strategy to make the city more competitive by reclaiming vacant land and housing. As part of NTI, the City commissioned The Reinvestment Fund (TRF), a development finance corporation that conducts policy research on related issues, to conduct an extensive census tract level analysis of housing and economic data. Based on this data, TRF identified six real estate market clusters, or ‘typologies’: Regional Choice, which have the highest average housing values; High Value/Appreciating, which have high housing values and population stability but less commercial activity; Steady, which have higher-than-average housing values but limited appreciation; Transitional, which have steady values, but a higher incidence of vacant housing and lots; Distressed, which have lower than median values and older, more deteriorated housing; and Reclamation, which have the lowest housing values and greatest amount of vacancy and decline.

The Mayor’s initiative proposes an appropriate set of resources to each and every one of these market types. This goal is articulated as one of the key principals of NTI: “A long-

term citywide vision must prevail and will require resources to be allocated in a manner that facilitates the market development it hopes to produce.”¹⁵

Conclusion

The Philadelphia housing data and resulting typologies are already dramatically improving local strategic planning and government policy. This proven information strategy could readily be systematized and replicated in other places, as well as extended to creating equally informative and influential neighborhood business and demographic typologies.

¹⁵ The City of Philadelphia Neighborhood Transformation Initiative, “A Strategy for Investment and Growth: Executive Summary,” Philadelphia (2001).

APPENDIX C

Glossary of Referenced Organizations and Initiatives

REFERENCED ORGANIZATIONS

Listed below, loosely organized by categories, are the major relevant organizations and activities that were referenced in the interviews, with very brief descriptive and contact information. This list is not meant to be all-inclusive nor reflect best practices, but rather to suggest the range and degree of activities emerging in this field, and to provide additional background and resources.

1. NEIGHBORHOOD INFORMATION SYSTEMS

- **Baltimore Neighborhood Indicators Alliance** - The Baltimore Neighborhood Indicators Alliance (BNIA) is an alliance of organizations committed to promoting, supporting and making better decisions using accurate, reliable, and accessible data and information for improving the quality of life in Baltimore City neighborhoods. <http://www.bnia.org/>
- **The Boston Foundation Boston Community Building Network** - The Boston Community Building Network is an outgrowth of the Boston Foundation's Boston Persistent Poverty Project. Now part of the Boston Foundation's Program Department, the Network, among other activities, provides reliable data concerning community change to individuals and organizations at all levels of decision-making; and mobilizes collaborations to generate and advance goals for Boston's neighborhoods, the city and region. <http://www.tbf.org/current/bcbn.html>
- **CamConnect** - CAMConnect is devoted to creating a learning partnership in Camden, New Jersey, with the belief that sharing and using data will lead to informed decisions and better policy making to support the improved quality of life of all Camden citizens. <http://www.camconnect.org/>
- **Center for Neighborhood Technology (NEWS)** - The Neighborhood Early Warning System (NEWS) is a Chicago property inventory that has been developed by the Center for Neighborhood Technology (CNT) as part of an affirmative neighborhood information strategy to increase community access to local government information. <http://www.newschicago.org/>
- **Community Resource Network Data Center** - The Community Resource Network Data Center works with others to bring about knowledge-based community change by providing an accessible, integrated system of neighborhood-level information to a wide variety of users, and builds the capacity of people and organizations to use data for community planning, action, and evaluation. <http://www.crndata.org/>
- **Community Services Planning Center Florida Department of Children and Families District Eleven** - The Community Services Planning Center is documenting, tracking and building a virtual Database Warehouse that contains information about the people, organizations, and activities which are part of the fabric that makes up the health and human services system in South Florida. http://www5.myflorida.com/cf_web/myflorida2/healthhuman/commserv/sfcspc/
- **Greater New Orleans Community Data Center** – The Data Center provides a source of local information for the nonprofit community in the greater New Orleans area. The Community Data Center fulfills on-demand data requests and is in the process of building a locally-relevant web-based data system. <http://www.gnocdc.org/>
- **Map Milwaukee** – a city run web-based GIS system for mapping data by neighborhoods. http://www.gis.ci.mil.wi.us/isa/Map_Milwaukee/

- **National Neighborhood Indicators Partnership** - The National Neighborhood Indicators Partnership (NNIP) is a collaborative effort by the Urban Institute and local partners to further the development and use of neighborhood-level information systems in local policymaking and community building. <http://www.urban.org/nnip/>
- **Neighborhood Knowledge LA** - Neighborhood Knowledge Los Angeles (NKLA) is a website dedicated to helping prevent housing and neighborhood conditions from deteriorating. NKLA provides tools for accessing property and neighborhood data and works with neighborhood residents, community organizations, and policymakers to mobilize support for community improvement in the Los Angeles area. <http://nkla.spsr.ucla.edu/>
- **The Nonprofit Center of Milwaukee, Neighborhood Data Center** - The Data Center produces data, maps, reports and analyses to allow organizations to better plan and develop programs that address the problems of Milwaukee neighborhoods. The program offers micro-analyses of neighborhoods and assists neighborhood-based staff with accessing information, interpreting its importance to the neighborhood, and developing the local capacity to use such information. <http://my.execpc.com/~npcm/progsum.htm>
- **Office of Data and Policy Analysis Georgia Tech** - DAPA serves as an advocate for community capacity building through the dissemination of local socio-economic data to Atlanta residents and organizations that have historically been denied access to such information. <http://murmur.arch.gatech.edu/~dapa/>
- **Providence Plan** - The mission of The Providence Plan is to restore hope and create new opportunity for the people of Providence through a comprehensive initiative designed to address the fundamental causes of poverty and urban decline. Through the Information for Change agenda, the Providence Plan is working to improve the scope, quality, accessibility, and usability of information available to the Providence community. <http://www.provplan.org/>
- **Urban Strategies Council** – Based in Oakland, CA, the Council’s mission is to reduce persistent poverty and help transform low-income neighborhoods into vibrant, healthy communities. The Council works locally and nationally, developing programs and policies that respond to community aspirations, identifying resources to support the programs, and compiling information about success and lessons. <http://www.urbanstrategies.org/>

2. BUSINESS DEVELOPMENT (BOTH CONSUMER MARKET AND BUSINESS NETWORK)

- **Allegheny Conference on Community Development** - The Allegheny Conference is a private, non-profit organization with the unique ability to convene corporate, government, and community leaders to frame, discuss, and implement civic initiatives. http://www.accdpel.org/01_01.asp
- **Appalachian Center for Economic Networks** - ACENet is a community economic development organization located in rural southeastern Ohio. The mission of ACENet is to build the capacity of local communities to network, innovate, and work together to create a strong, sustainable regional economy that has opportunities for all. ACENet uses a sectoral strategy, currently focusing on the food and technology sectors of the economy. <http://www.acenetworks.org/>
- **Initiative for a Competitive Inner City** - ICIC believes that a sustainable inner city economic base will depend on private, for-profit business development and investments based on economic self-interest and genuine competitive advantage. <http://www.icic.org/>

- **Shorebank MetroEdge** - MetroEdge delivers market intelligence to increase the quality of business expansion, location, and customer acquisition decisions. MetroEdge uses cutting-edge analytical techniques and specialized data to build upon traditional census information and standard decision methods. <http://www.metro-edge.com/>
- **Social Compact** - Social Compact is a coalition of business leaders who have joined forces to promote successful business investment in undervalued communities for the benefit of current residents. One strategy tool they have developed is the Neighborhood Market Drill Down – a pioneering market analysis model built on innovative sources of dependable, business-oriented data that reveals the hidden strengths of traditionally undervalued communities. <http://www.socialcompact.org/>

3. COMMUNITY INFORMATION TOOLS (PLATFORMS, APPLICATIONS...)

- **Blacksburg Electronic Village** - The Blacksburg Electronic Village is an outreach initiative of Advanced Network Infrastructure & Services of Virginia Tech. The BEV offers a wide variety of Internet-based services to Blacksburg area citizens, civic groups, and non-profit organizations. <http://www.bev.net/>
- **Charlotte's Web** - The mission statement of Charlotte's Web promised to enhance the community socially, culturally, and economically. Toward this goal, the network forged numerous partnerships with local organizations that extended ownership of the program to as many people as possible. Charlotte's Web was a multifaceted, broad-based organization manned by several hundred volunteers serving 4.5 million people. www.charweb.org
- **CityKi** - CityKi intends to address the isolation often found in neighborhoods by locating numerous, easy-to-use, broadband Internet Kiosks in trusted venues such as stores, hospitals, and other community gathering places. These kiosks promote the growth of local merchants and the technological know-how of residents, while at the same time promoting a collaborative community of the CityKi network through grassroots marketing and venue specific information screens. <http://www.cityki.com/>
- **Cleveland Freenet** - In 1986, Cleveland set up the first freenet, which has since shut down. A freenet is a public network that provides free access to community news and information, as well as basic entry to the Internet. Think of a freenet as an electronic town since it has a post office for e-mail, a library for research, and bulletin boards for community events. <http://www.geocities.com/Heartland/Plains/6271/freenet.html>
- **Craigslist** - Craigslist is an advertising/listing service that started in San Francisco to provide information on topics ranging from jobs to restaurants to apartments. Now replicated for cities across the country, Craigslist also takes its community commitment seriously too, sponsoring online and offline forums for nonprofits. <http://www.craigslist.org/>
- **Digital Cities** - AOL Local Guide (available on the Web as Digital City) is a leading local online information source. It provides advertisers and marketers with an active local audience looking for where to go, what to do, and how to get the most out the cities in which they live and visit. <http://www.digitalcity.com/>
- **One Economy/The Beehive** – One Economy is a national nonprofit organization created to be a catalyst for innovation and change. The mission is to maximize the potential of technology to help low-income people build assets and raise their standard of living, bringing access to technology to low-income affordable housing residents around the country, and using that

technology to connect people to information and tools they can use to take action and improve their lives. <http://www.one-economy.com/>

- **Westmoreland Web** - Westmoreland Web is dedicated to providing a platform for neighbors to share knowledge, pool economic and political power, and foster friendships. <http://www.westmorelandweb.com/>

4. SECTOR SPECIFIC ORGANIZATIONS INNOVATING WITH INFO RESOURCES

- **Bridges to Work** - Bridges to Work (BtW) is an employment demonstration program designed to assist low-income households in cities by bridging the spatial separation between them and job opportunities in five metropolitan areas: Baltimore, Chicago, Denver, Milwaukee, and St. Louis. <http://www.hud.gov/progdesc/bridges1.cfm>
- **Center for Neighborhood Technology (LEM)** - The Location Efficient Mortgage, or LEM, is an innovative, new mortgage product that uses location efficiency data and models to reduce mortgage costs, in order to meet the homeownership needs of people who would like to purchase a home in an urban neighborhood *and* who would be willing to rely on public transportation and to use locally available services and amenities rather than own a personal vehicle. <http://www.locationefficiency.com>
- **Cleveland Housing Network** - The mission of CHN is to develop affordable housing in Cleveland's neighborhoods, with a special emphasis on serving families in poverty and on providing home ownership opportunities. Technology Link 2000 (T2K) is a capacity building tool to advance the goals of Cleveland's nationally recognized community development initiatives. Located at www.t2k.org, T2K links Cleveland's community development industry with our network of social service providers and a broad array of public and private partners. <http://www.chnnet.com/overview3.htm>
- **Community Catalyst's Real Benefits** - Community Catalyst is a national nonprofit organization based in Boston, Massachusetts. It provides leadership and support to a wide range of state and local organizations focused on expanding access to health care and other vital services. Community Catalyst's work includes representing community interests in localities facing conversions of nonprofit hospitals and health plans into for-profit corporations; expanding health coverage for the uninsured; and overcoming benefit and service access barriers. <http://www.communitycat.org/index.php3?fldID=164>
- **East Bay Works** - The purpose of EASTBAY Works is to advance the economic well-being of the region by developing and maintaining a skilled workforce. This is accomplished through a customer-focused collaboration of employment, training, economic development and educational partners working together to meet the needs of employers, job seekers and workers. <http://www.eastbayworks.org>
- **HelpWorks** - HelpWorks conducts benefit screenings based on eligibility rules organized into *benefit libraries*. HelpWorks is an expert system, a software program which "learns" from the expertise of its users. Each HelpWorks interview reflects the unique mix of programs, rules, questions, and applicant information supplied to the screening engine. <http://www.dev.petermartin.com/products/hwe/?product=4>
- **KidsCount** - KIDS COUNT, a project of the Annie E. Casey Foundation, is a national and state-by-state effort to track the status of children in the U.S. By providing policymakers and citizens with benchmarks of child well-being, KIDS COUNT seeks to enrich local, state, and national discussions concerning ways to secure better futures for all children. kidscount.org

- **Pay Rent, Build Credit** - Pay Rent, Build Credit, Inc. is a dedicated partner for housing, financial, and educational services. Pay Rent, Build CreditSM Partners help apartment renters build credit with rent payments, as home owners do with mortgage payments. Pay Rent, Build CreditSM Financial Institution Partners offer the most cost-effective way to pay and collect apartment rents, and to accurately aggregate, protect, and fairly account for transaction data. <http://www.payrentbuildcredit.com/>
- **Sexual Assault Crisis Center (Maine)** -SACC is a volunteer organization committed to ending sexual victimization and assisting the healing of people affected by rape, sexual assault, child sexual abuse, and sexual harassment. <http://www.sacc1984.com/>

5. OTHER COMMUNITY BASED INFORMATION INITIATIVES

- **Bethel New Life** - Since 1979, Bethel has earned a national reputation for cutting edge initiatives and pioneering approaches that build on the people, physical assets, and faith base of the community. Bethel strives to turn problems into possibilities through community efforts that arise out of commitment to self help and self determination with community-based, value-centered, solution oriented initiatives. <http://www.bethelnewlife.org/>
- **Camfield Tenants Association** - CTA's goals are to enhance the lives of its residents and maintain the economic diversity of Camfield, and to keep the housing affordable to allow community residents to stay in the neighborhood. <http://www.camfieldstates.net/camfieldstates/>
- **Community Development Technologies Center, LA** - The Community Development Technologies Center (CDTech) is a nonprofit training, applied research and technical assistance organization specializing in community economic development. CDTech's programs help strengthen the social, economic and built environments of low-income neighborhoods by focusing on community strengths and strategic partnerships. <http://www.cdtech.org/link/index.php>
- **Kansas City Neighborhood Alliance** – KCNA's mission is to provide information and communications so that individuals, groups, and neighborhood organizations can undertake community enhancement efforts that enrich the quality of life in the Kansas City metropolitan area. www.kc-na.org/
- **Playing2Win** - Playing2Win (P2W), Harlem's cutting-edge technology and education center, is leading the next generation of technology users to the forefront of economic, social and educational opportunities. <http://www.playing2win.org/>
- **The Reinvestment Fund, Philadelphia** - The Reinvestment Fund's (TRF) mission is to alleviate poverty by building assets, wealth and opportunity for low- and moderate-income communities and persons. TRF accomplishes its mission through the strategic use of capital, knowledge and innovation. <http://www.trfund.com/>
- **Time Dollar** – Time Dollar is a bartering system and community based network of services that can be exchanged like currency between neighbors. The time dollar concept was first implemented in 1982 by the Grace Hill organization in St. Louis and has since spread across the country. <http://www.gracehill.org/neighborhoodservices/NS.L.MTDE.htm>
- **Welfare Law Center's Low Income Networking and Communications** - The Welfare Law Center's Low-Income Networking and Communications (LINC) Project is a nationally recognized initiative to enable low-income grassroots groups to use technology strategically to

advance campaigns on economic security issues and to build their members' leadership and computer technology skills. <http://www.lincproject.org/>

6. REGIONAL ORGANIZATIONS

- **Alliance for Regional Stewardship** - The Alliance for Regional Stewardship is a national peer-to-peer learning network of regional leaders who benefit by sharing experiences and working collaboratively on innovative approaches to common regional challenges. The Alliance is for proven leaders who recognize the interdependencies of their regions' economy, environment, and society—and are seeking practical ways to effect change. <http://www.regionalstewardship.org/>
- **Bay Area Council, Family of Funds** – This is a regional effort to attract private investment into low and moderate-income neighborhoods to promote smart growth, address poverty, support local businesses, and clean up contaminated sites with market-based solutions. <http://www.bayareacouncil.org/ppi/sed/BAFoFfacts.pdf>
- **Chicago Metropolis 2020** – Chicago Metropolis 2020's mission is to help make the Chicago region one of the places in the world where people will most want to live and work. Chicago Metropolis 2020 works to increase collaboration among local governments, improve the transportation system, improve the tax system, increase opportunities for more citizens and ensure that Chicago's children are adequately prepared for a very competitive world. <http://www.chicagometropolis2020.org/>
- **MetroBusinessNet** – MetroBusinessNet is a national action-learning network composed of business-based civic organizations from five metropolitan regions committed to equitable and sustainable economic development on a regional scale. <http://metrobusinessnet.net/>
- **Metropolitan Area Planning Council** - The Metropolitan Area Planning Council (MAPC) is the regional planning agency representing 101 cities and towns in the metropolitan Boston area. Created by an act of the Legislature in 1963, it serves as a forum for state and local officials to address issues of regional importance. www.mapc.org

7. OTHER RESOURCES AND REFERENCES

- **Abt Associates** - Abt Associates applies rigorous research and consulting techniques to a wide range of issues in social and economic policy, international development, business research and consulting, and clinical trials and registries. <http://www.abtassoc.com/>
- **Athena Alliance** - Athena Alliance is a non-profit organization dedicated to public education and research on the emerging global information economy and the networked society. Athena Alliance also seeks to enlarge the repertoire of strategies, mechanisms, tools and capabilities that individuals, firms and communities can use to shape their own positive economic futures. <http://www.athenaalliance.org/home.html>
- **Building Community Technology Partners** - BCT is a for profit social venture committed to helping non-profits use technology to build community, support community change strategies and improve their organizational effectiveness. BCT combines expertise in community development, community building, non-profits and technology to help customers use technology to strengthen their communities and build social, economic and human capital. <http://www.bctpartners.com/>

- **Center on Urban Poverty and Social Change, Mandel School for Applied Social Science Case Western Reserve University** - The Center on Urban Poverty and Social Change seeks to address the problems of persistent and concentrated urban poverty and is dedicated to understanding how social and economic changes affect low-income communities, and how living in these communities affects the well-being of their residents.
<http://povertycenter.cwru.edu/>
- **Claritas, Inc.** - Claritas is a marketing information resources company dedicated to helping companies engaged in consumer and business-to-business marketing. Claritas is dedicated to maximizing our clients' profitability with targeted and measurable marketing programs and enterprise-wide technology solutions. <http://www.claritas.com/main.htm>
- **EconData.Net** - A thousand links to socioeconomic data sources, arranged by subject and provider, including pointers to the Web's premiere data collections and to major government sources, as well as a list of the ten best sites for finding regional economic data.
<http://econdata.net/>
- **Forum Analytics** - Forum Analytics is a small, privately held consulting firm with expertise in consumer based business strategy, planning, and development.
<http://www.forumanalytics.com/>
- **iMapData** - iMapData provides spatial intelligence via a web-based, geographic platform enabling businesses and government agencies to create maps and reports by accessing and merging various database sets including telecommunications, energy, infrastructure, political, businesses, taxes, regulations, jobs, demographics, and other specific industry data.
<http://www.imapdata.com/>
- **Impresa** - a Portland-based consulting firm providing economic analysis, policy development, communication, capacity building and evaluation services. Nearly all of its work deals with helping clients--businesses, governments, non-profits, individuals--understand and deal effectively with unfolding changes in the economy. <http://www.impresaconsulting.com/>
- **IRN, Inc.** - IRN has gained national prominence as one of the premier consulting firms serving the automotive supplier community with production forecasting, market research and strategy development assistance. <http://www.irn-auto.com/>
- **McCauley Institute** - McCauley Institute is a national, nonprofit housing organization founded by the Sisters of Mercy. McCauley provides state-of-the-art technical assistance and financial resources to grassroots organizations that work to expand housing and economic opportunities for low-income women and their families. <http://www.mcauley.org/>
- **MIT Deshpande Center for Technological Innovation** - The Deshpande Center funds novel early-stage research, and connects MIT's innovators with venture capitalists and entrepreneurial companies to help emerging technologies emerge.
<http://web.mit.edu/deshpandecenter/>
- **The Nonprofit Technology Enterprise Network** - The Nonprofit Technology Enterprise Network (N-TEN) is dedicated to supporting the people who provide technology-related services to the nonprofit sector. <http://www.nten.org/>
- **North Atlantic Research** - NAR is a consulting company that has been instrumental in the development of significant electronic publishing projects, notably SmartSource™, a comprehensive database of information covering telecommunications, cable, and the Internet, and LocalNet™, a unique local online resource bringing the power of the Web to the needs of the local community. <http://www.north-atlantic.com/>

- **PolicyLink** – PolicyLink focuses on achieving equity through a multifaceted approach connecting those too often left out to the region, the economy, technology, and, ultimately, to democracy. The work of PolicyLink is rooted in partnerships with community-building practitioners, national nonprofit organizations and others committed to finding equitable solutions. <http://www.policylink.org/about.html>
- **The Urban Institute** – The Urban Institute is a nonpartisan economic and social policy research organization that provides fresh perspectives and research of record on vital nation issues. <http://www.urban.org/>

APPENDIX D

The Role of Information Systems and Tools

INFORMATION SYSTEMS AND TOOLS: OVERVIEW

The ability to create connections and make markets work is dependent upon development and deployment of information systems and tools. Tools provide the mechanisms to collect, analyze, and disseminate different kinds of data. Moving beyond the repository and analytic functions, information tools also increasingly constitute the actual mechanisms for transactions to take place—literally moving markets. Ultimately, it is the tools which make data *actionable*.

Without seeking to provide a definitive typology, it may be useful to identify four basic categories of tools:

- Tools for **data collection**. While data is of course already collected through innumerable government and non-government programs, the promise of neighborhood or sector specific data systems is that they will be more flexible and customized to local opportunities and strategies; more current and continuously updated; and more readily usable by activists, developers and policymakers. Such tools range from surveys to more specialized information applications such as that used by HelpWorks to process welfare registrations.
- Tools for **data analysis and integration**. The ability to tie together disparate data from multiple locations will add tremendously to the impact of data on the ground. Similarly, analytic programs such as that developed by MetroEdge will transform raw data into the useful knowledge needed by local communities, businesses and government. Clearly GIS technologies and geographical mapping will play a big role in this area, as already demonstrated by NKLA.
- Tools for **data and knowledge dissemination**. Unlike traditional knowledge products, which appear in reports or tables, electronic knowledge is by its nature much more interactive, much more finely tuned to the needs of the immediate user. Many different applications meet the knowledge and data needs of users in government, business, nonprofits, and particularly of consumers and citizens themselves. In the near future, users will likely primarily use Web browsers and web technologies as a portal into the data. However, the degree of interactivity and user control will vary widely, from the relatively limited capabilities of users accessing summary ES202 data to the very tightly defined survey data created by East Bay Works to guide training programs for potential biotechnology lab workers.
- Tools for **transactions** in the marketplace and beyond. The biggest information impact in the mainstream economy flows from tools which not only provide passive data and knowledge, but enable acting on it. Amazon, for example, has dramatically changed market dynamics for bookstores. Sabre, the airlines' reservation system, is more valuable than particular airlines themselves. Similarly, in non-market areas such as government services, increasingly customers will demand transactional capabilities and providers will find significant cost savings through real-time transactional tools. Bringing tools like these to urban neighborhoods to expand networks and market capacity offers particular development potential.

In order to understand the role of information systems and tools in lower-income communities, it is also important to understand how the flow of information starts from a source, goes through a system, and then gets utilized by end-users for a particular purpose. Furthermore, it is important to understand a general typology of the systems and tools that move and shape this information. An information flow chart is shown in Figure 1.

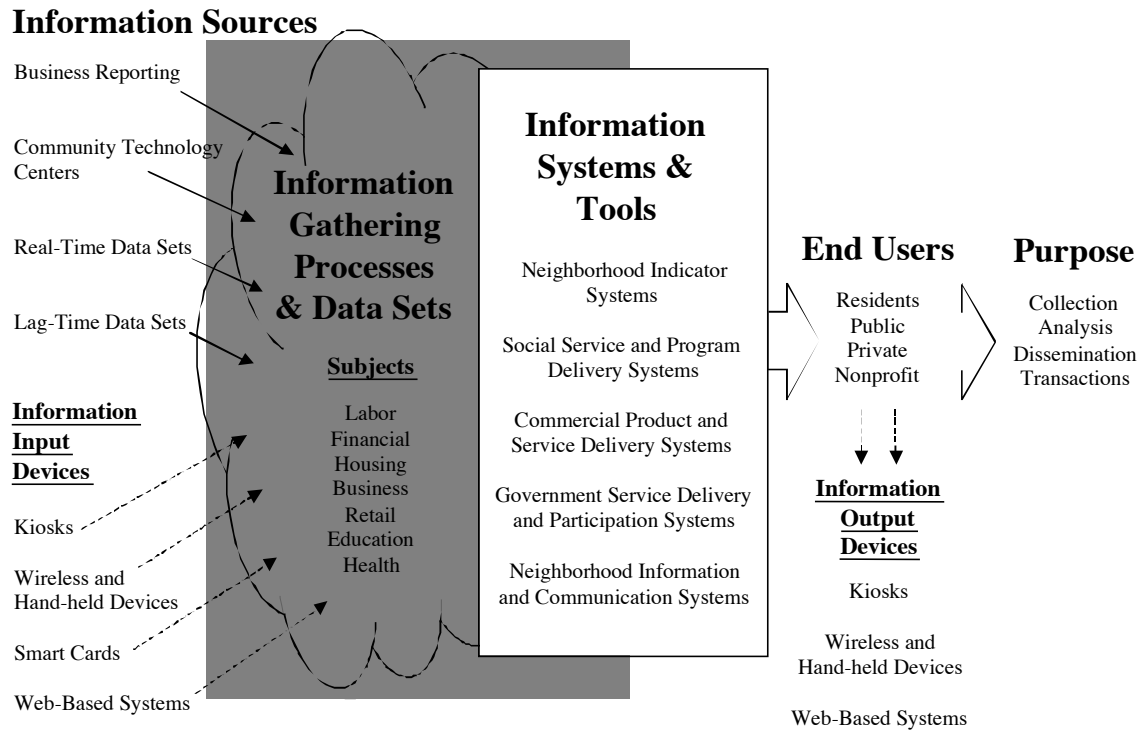


Figure 1: Information Flow Chart

To begin with, market information can be collected from a variety of sources through a variety of means. Both public and private sources exist, such as the census report or an online survey conducted by a private business. This information may be captured in real-time, as in the case of an on-line survey, or in lag-time, as in the case of the census. These data may be used to profile a variety of market segments or service areas, including, but not limited to: labor, finances, housing, business, retail, education, and health. Individual market profiles may include descriptions of geography, population characteristics, market size or growth potential, buying power of a region, and the crime risk or stability of a region. Various input devices can facilitate the gathering of the data; but the format, the reliability, and to some extent the very nature of the data will vary depending on what process is used to collect it. These devices range from PCs and kiosks that are directly connected to the Internet, to web-enabled and wireless devices (such as cell phones and PDAs). The processes by which this information is gathered from sources can vary from being inputted directly by individuals—as in the case of on-line surveys—to being collected at the point of sale—as in the case of smart cards. Regardless, once it is obtained in an appropriate format, data is then resident in a particular system or tool, which can be utilized by end-users for a given purpose.

Tools establish latent opportunities along each of these lines. Using tools, people and organizations then seize these opportunities. Therefore, it is the desired impact of the end user that must ultimately drive their development. These include residents, government planners, community practitioners and business decision makers. In other words, it is critically important to consider the work being done in the community and then deploy tools that enhance this work, as opposed to developing systems and then considering how they can be deployed.

INFORMATION SYSTEMS AND TOOLS: USES, TYPES, EXAMPLES

For purposes of surveying some of the information tool innovations emerging for community development, we have identified five categories of information technology systems and tools, shown in Table 1.

System/Tool	Description
Neighborhood Indicator Systems	Monitor the social and economic changes of a given area.
Social Service and Program Delivery Systems	Extend the reach of non-profit organizations, allowing participants better access to the programs and people involved
Commercial Product and Service Delivery Systems	Allow private corporations to reach inner-city communities that might otherwise go without adequate services
Government Service Delivery and Participation Systems	Allow public officials to be more readily accessible to their constituents and public services to be utilized more effectively or efficiently
Neighborhood Information and Communications Systems	Enable participants to share local knowledge, expand social networks, and pool economic resources and political power.

Table 1: Information Systems and Tools Overview

Neighborhood Indicator Systems

Neighborhood Indicator Systems generally monitor the social and economic changes of a given area. By combining rich layers of detailed information about communities, these systems provide early warnings about neighborhood decline, allow organizations and concerned citizens to hold government officials accountable, and help community planners to craft well-informed strategies for neighborhood improvement. They are generally systems for data integration and dissemination, with varying but more limited degrees of collection, analytic and transactional capacity.

Many of these systems are principally based on Geographic Information Systems (GIS) technology—a software application that can capture, manipulate and represent geographically coded data in the forms of maps. When combined with a robust database back-end, GIS can be used to generate fairly sophisticated representations of data. This includes the ability to cross-reference data sets, as well as the ability to conduct sophisticated queries that draw upon the relationships between data. By layering multiple kinds of information on top of a given

geographic location, GIS allows users to gain a wider perspective on their neighborhood and helps to facilitate the interpretation of various indicators.

The strengths of these systems are that they make data and information more accessible, transparent, salient, and intuitive. Three examples that bring these strengths to light are Neighborhood Knowledge Los Angeles (NKLA), MetroEdge’s CitySystem, and the National Neighborhood Indicators Partnership (NNIP). NKLA helps prevent housing and neighborhood conditions from deteriorating by providing access to property and neighborhood data and using this information to mobilize support for community improvement in the Los Angeles area. MetroEdge uses cutting-edge analytical techniques and specialized data to deliver market intelligence to companies wanting to optimize their growth and performance as well as providing community and government leaders with intelligence to attract and grow business in their cities. NNIP is a collaborative effort by the Urban Institute and local partners to further the development and use of neighborhood-level information systems in local policymaking and community building. All of these examples highlight the particular strength of these systems to analyze multiple, interrelated data sets and enable people to create positive change within their communities.

These systems do currently have their weaknesses as well. At present, it is difficult for these systems to handle data in real-time; however, the field is moving toward more dynamic solutions. For example, ESRI—the current leader in GIS software—presently provides only static information, but also provides hooks in its software to enable other programmers to create more versatile maps. Also, these systems have traditionally been expensive and have required significant technical expertise, but these thresholds have been lowered in recent years.

Social Service and Program Delivery Systems

Social Service and Program Delivery Systems generally extend the reach of non-profit organizations, allowing participants better access to the programs and people involved, thus reducing the associated transaction costs. In addition, these systems can be used to organize advocacy groups and promote policy reform.

Two examples of these types of systems are the Sexual Assault Crisis Center (SACC) in Androscoggin, Maine, and HelpWorks. SACC enhanced its existing services with online support groups that are moderated by trained staff and allow survivors of sexual assault to connect to each other in a safe way, and at times when other support groups are not available (i.e., late evening hours). HelpWorks is a web-based system that uses decision rules to plan and guide a personalized interview for such things as checking eligibility for benefits and services (for example, assessing eligibility for Medicaid or disaster relief benefits), and giving general advice and direction to information seekers of all kinds.

These systems are often web-based or desktop software applications. They often augment the ability for non-professionals to do professional screening while at the same time automating data collection for analysis. These systems also improve efficiency of service (e.g., a rules-based engine that is accurate) and information delivery (e.g., information on a website along with web-based access to a professional), enable an organization to maintain a high quality of service, while reducing but not eliminating the need for professionals.

Commercial Product and Service Delivery Systems

Commercial Product and Service Delivery Systems allow private corporations to reach inner-city communities that might otherwise go without adequate services. Through innovative and classic web-based systems, private markets can more accurately and efficiently see opportunity and serve consumers in inner-cities.

Two examples of these types of systems, with somewhat opposite approaches, are CityKi and Amazon.com. CityKi installs web-enabled kiosks in local market places that allow customers to buy items not stocked at the neighborhood stores. Amazon.com, on the other hand, does not provide access to the Internet, but does allow anyone with a web-enabled device, including cell phones and handheld devices, to buy and sell goods. While one is providing the front end hardware and technology, the other is providing access to the back-end technology and processes for doing transactions virtually. Both companies are enabling inner-city residents to have easier access to products and services via technology.

Furthermore, as a potential means to promote local economic development through virtual reseller relationships, Amazon.com offers a relatively new platform called Amazon Web Services (AWS). The AWS platform easily facilitates the aggregation of demand by allowing third-parties to power their websites using Amazon.com's infrastructure, resulting in 5% to 15% returns on the net income from sales of Amazon.com goods. "Amazon Anywhere" further allows residents to access these offerings via personal digital assistants, mobile phones, and other enabled handheld devices. This model offers three powerful opportunities: (1) availability of a wide range of products and services filling gaps in the market, (2) aggregation of demand by consolidating community purchasing power, and (3) local community economic development by allowing a lead community-based organization to generate residual income by promoting this service.

Another example of a commercial product and service delivery system (with elements of social service and program delivery) is Time Dollar, an electronic bartering system and neighborhood based network of services that can be exchanged like currency between community members. The basic concept is that participants earn "time dollars" when they volunteer their services to one another and later can exchange them for services they receive. Services range from transportation to household chores to childcare. A computerized system allows the time dollars to be monitored and tracked and provides participating residents with a monthly report of time dollars earned and owed. The time dollar concept was first implemented in 1982 by the Grace Hill organization in St. Louis and has since spread across the country. Time Dollar is essentially an efficient mechanism for monitoring and tracking civic and commercial activity. It can be used to aggregate demand for services, broker services more efficiently, and further enhance the already existing social infrastructure within a community.

One of the advantages of these types of systems is that by carrying out transactions in virtual space, these companies are unencumbered by competitive disadvantages (perceived and real) that make inner city economic development more difficult (e.g., crime, transportation, land, building costs, etc.). A disadvantage of these systems is that their reach is limited by technology access to

a particular location. Furthermore, current non-PC devices—such as kiosks and other mainstream wireless devices—have limited usability, due to screen resolution, size, and inputting mechanisms (e.g. the key pad on a phone or a touch screen as opposed to the full alphabet keypad of a personal computer).

Government Service Delivery and Participation Systems

Government Service Delivery and Participation Systems allow public officials to be more readily accessible to their constituents and public services to be utilized more effectively or efficiently. Public services that will be improved by innovations that are currently being developed include everything from public transportation to voting mechanisms.

Many general examples are worth noting here. There are examples of local, state, and federal government initiatives to consolidate various services using technology; for example, businesses who need to register with local, state and federal agencies would be able to accomplish all of the necessary steps to do so through a single web-based interface. There are examples of transportation services using microchips and Global Positioning System (GPS) technologies to track the position of public vehicles, so that both commuters and transportation authority officials can make more informed decisions. One final, specific example is the Welfare Law Center’s Low-Income Networking and Communication (LINC) project, which uses GIS and web-based technology to enhance their advocacy work by matching constituents with their local representatives, allowing advocates to collaborate and share information, and assisting local low-income groups to mount their own organizing efforts. By streamlining business processes and reducing transaction costs, many of these systems will help provide better customer service; however, access to these systems is still an issue in underserved communities and keeping up with citizen demands and expectations may be a challenge.

Neighborhood Information, Communication and Commercial Systems

Neighborhood Information and Communication Systems enable participants to share local knowledge, expand social networks, and pool economic resources and political power. Some of these systems are portals that allow organizations to develop and share localized and issue specific information regarding the community with all interested constituents or other stakeholders. Other systems are more dynamic and allow participants to actually engage one another on-line, enabling the exchange of valuable personalized information. For example, through buying cooperatives, participants are able to gain aggregated purchasing power. These systems make communities stronger by facilitating the building of social and political networks.

Three examples of these types of systems are: The Beehive, East Bay Works, and Westmoreland Web. The Beehive is a website maintained by One Economy that connects low-income households to resources, information, and tools to help them build assets and raise their standard of living. The Beehive is being deployed along with a comprehensive strategy to provide access, training and content in low-income communities, and in doing so, One Economy is creating a mechanism to aggregate demand in markets across the country. The East Bay Works website is a portal that facilitates posting and tracking jobs and resumes and provides a regional directory of employment and training services. This initiative is reducing the transaction costs associated with workforce development and promoting greater labor market efficiency. Westmoreland

Web is a platform for neighbors to share knowledge about, aggregated demand for, attract and effect transactions with varied service and retail providers. These examples vary from being simple information clearinghouses to being places where people can actually interact and engage one another on-line in some productive manner.

The degree to which these systems are successful largely depends on their ability to provide useful information quickly or promote meaningful dialogue easily. Depending on the approach, these systems may either provide on-line tools to sort through information, or tools to communicate with other people on-line. The strength of these systems lies in their ability to generate knowledge, not just disseminate information, spawn action, not just facilitate communication, and expedite transactions more efficiently than alternative mechanisms.

CONCLUSION

Tools create new market possibilities in lower-income neighborhoods as a result of aggregating demand, enhancing market access, reducing transaction costs and improving infrastructure. However, it is not the tools alone that cause these transformations. Tools establish latent opportunities. Using tools, people and organizations then seize these opportunities.

A number of systems and tools that are presently available—in communities and at large—are very well suited to improving social and economic efficiencies in neighborhoods. These range from neighborhood indicator systems to community transactional systems. These systems can go to scale, and a next wave of innovation emerge, through supporting existing neighborhood initiatives that use systems to do their work better, cultivating partnerships between complimentary initiatives, and deploying systems in communities where opportunities exist to replicate and extend previous, successful efforts.