

**NSDI Cooperative Agreement Program
Institution Building and Coordination Project
Final Report
Agreement Number: 04HQAG0186**

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Project Narrative:

With the help of our partners, we have finished the implementation of Phase 1 of the Regional Data Repository. It was officially launched in Spring of 2007 as the MetroBoston DataCommon. This final report is to recap the activities for the duration of the CAP grant as well as lay out the next steps involved in strengthening the institutional relationships that are the foundation of this project.

- the state of regional coordination, how has it changed as a result of this project

Regional coordination on data has improved since the award of this grant in 2004. This is in part due to the strength of the relationships between a few core agencies, but also due to the evolution of technology and agencies' ongoing investment in information infrastructure. More recently the MetroBoston DataCommon was launched in the Spring of 2007 and attended by over 200 people. Although this event was not directly funded by the CAP grant, the launch was a testament to the state of region data and interested users. The launch was hosted by our partner Joe Ferreira at MIT's Strata center.

There still remains room for improvement and coordination of infrastructure investments.

- the regional scope, the types and applications of data covered by this project

The region that the CAP covered is the MetroBoston region or more specifically MAPC's 101 municipalities. The CAP grant covered a variety of meetings and travel related to institutional relationship building with the core partners: MIT, MassGIS, Department of Neighborhood Development and the Boston Foundation. Many of the early activities were detailed in the interim progress report submitted in March of 2005. Since the interim report the final amount of funds went to finalizing MOU's with core partners as well as a "Data Day" conference to engage the larger public and potential new partners.

MOU's with the Boston Foundation were finalized as well as an MOU with MIT on the Brookings Institute work which will serve as a template for MBDC MOU's with the this agency.

Funds from the CAP grant went to under write a portion of Data Day "Expanding the Use to Data to Drive Community Change." An all-day event to accelerate and explore community use of data and information. In particular Data Day featured a variety of the core partners giving them a venue to further disseminate and present the data and information infrastructure they work on. The goal of this one-day conference was to help organizations and municipalities in

our region expand their capacity to use technology and data in innovative ways to advance their community's goals. The conference served as a vehicle for new information and data tools and highlighted ways in which some community groups are already using GIS and data to support community change.

The conference was structured around a series of “how to” interactive workshops in which people who work with data to drive community change explained how to use data, where to get data, how to gather your own data, how to map your data, and how to get your data noticed by the media and to influence public policy. In addition to the skill building hands on workshops, the conference featured presentations, exhibits, and speaker-led discussions about the latest technological advances and federal resources that are shaping collaborative data systems for the Boston Metropolitan Region. (See attached agenda and workshop descriptions for more detail). Specifically a session was held on the future of MetroBoston’s regional information named “Collaborative Regional Information Systems”. This session was well attended and the presentations by Raj Sing and me fuel a lively discussion. For most attendees this was the first time they had been exposed to the idea of a decentralized collaborative information system.

- what are the best practices that lead to success and practices you have found that do not

One lesson learned is that having multiple related projects that are lead by different partners in the collaborative can be beneficial. This allowed each partner to take a lead in fundraising and development of a particular part of the solution to an overall regional data system. It also breaks the creation of regional data system into bit sized pieces. Finally when the partners in the collaboration disagreed on a particular outcome or decision related to one project, having parallel projects to work on together enabled the collaboration to continue but to gain distance from the current disagreement at hand. This allowed the partners to continue working together demonstrating commitment and worth to the core mission of the collaboration.

Another lesson learned is that we are all on a learning curve. Each partner has various skills and prospective that are important to the development of a regional data system. Some of the partners have been collaborating for over eight years, we have each learned from each other’s perspectives. For example MAPC made a decision not to go with an open source vendor for phase 1 of the MBDC. This decision was strongly disagreed with by various partners. MAPC felt that they did not have enough internal capacity to maintain the site nor enough resources to support the open source applications. Three years later the partners that strongly disagreed with the decision, better understand the challenges for maintain an open source regional data system.

The final lesson learned is that each partner has an innate prospective because of the type of organization they represent. For example, both MIT and The Boston Foundation have no public accountability or direct constituency services related to data. They did not feel the need to get a tool on the web in the immediate time frame and were willing to wait until the technology matured. Whereas MAPC who takes daily data requests had an immediate need to get information up for constituents and have direct accountability to their constituents.

- Describe how the collaboration is governing

Governance of the collaboration in very informal. The core participating agencies are opportunistically driven in their projects and decisions. Individual agencies take the lead on a particular project or analysis and can easily call on another partner to help, whether it is advice

on IT infrastructure planning, technical analysis, or advocacy in the legislature. It seems that all partners have a deep commitment to the goal democratized data within a federal data systems (not centralized) interoperability standards and open source technology where possible.

Next Steps

- Will this project's activities continue in the future

Yes, the MetroBoston DataCommon Phase 1 will continue to be served on the web. The collaborative and its partners will be continuing their work with a new addition of UMASS-Lowell. The partners are collaborating to create Phase 2 of the MetroBoston DataCommon, called MICo-Viz and to create a national level collaborative.

- Describe the next phase in your project

The next phase seeks to create an innovative high-performance open source platform to harvest years of work on data democratization and visualization, “smarter” planning and more effective policy formulation within and across Greater Boston, New England and the United States. Specifically, phase 2 will allow the longstanding partnership among the University of Massachusetts-Lowell (as the technical and administrative lead), the Boston Indicators Project and the Metropolitan Area Planning Council to participate in a best-in-class national Consortium as its flagship project. The name of the platform to be created is called MICo-Viz. It will enable the integration, dissemination and visualization of data of value to community and regional planners, policy makers, funders, advocates, and engaged residents at three levels of proficiency: novice; intermediate; and expert. MICo-Viz will enable the shared provision, analysis and visualization of local, regional and state data through shared protocols to induce data providers to make more of their web resources accessible at “nested” levels of geography. Innovations developed at UMass Lowell will allow people located in disparate locations to view and alter the same data visualizations with voice/chat capabilities. MICo-Viz will streamline and promote inclusive smart growth planning through comparable “nested” measures across geospatial layers, boundaries and jurisdictions such as municipalities, watersheds, and voting districts. MICo-Viz technical innovation will be driven by the preferences and capacities of 6-9 Consortium partners. Low financial hurdles, and open access to the source code will support customization and innovation in a widening community of users and developers. Access to and use of these new tools for data sharing, analysis and visualization will promote “smarter” cross-sectoral and cross-boundary planning, capacity building among individuals and organizations, creative and communicative impact evaluation and advocacy, and data-driven policy formulation.

- Requirements (more technical assistance, software, other?)

MAPC and its partners require technical assistance and advice on how Phase 2 of the MBDC can tap into the federal data sources that are available through web services. Specifically, how we can build in FDGC meta data standards and a meta data “light” for those data sources that do not comply. We will require more funding to enable MAPC staff members and collaborating agencies to attend FDGC events and related conferences to ensure that we are developing a new platform that is compliant with the FDGC standards and advances its practical application.

- What areas need work?

Although the MBDC project has been incorporated into the core functionality of the MetroData Center and GIS Labs at MAPC, the commitment of the partnering organizations besides MASSGIS is largely personality based. It will take more than an MOU to get the Boston Foundation or MIT to institutionally commit to the project and it is unclear how to do that. The best strategy currently seems to be to develop a highly visible successful tool with everyone's name on it. The attention and media make a stronger impression on the heads of the partnering organizations than the MOU's that are rarely enforced. In addition we are beginning to develop success stories about constituents who have used the regional information system. These success stories should help the heads of these organizations better understand how a web data tool can directly affect the lives of people. Hopefully making a stronger impression on the relevance of these relationships and their individual institution's commitments to the collaborative regional data system reinforcing what is set forth in MOU's.

Feedback on Cooperative Agreements Program

The only feedback that I would give is that institutional relationship building takes a long time. It may be worth making the institutional relationship grants multiple years. I did strongly appreciate the guidance I received from Kathy Covert as well as the learning community she set up with the CAP grant recipient conferences.

Attachments



Data Day: Expanding the Use of Data to Drive Community Change

An all-day event to accelerate and explore community use of data and information

June 24, 2005 • Curry Student Center Ballroom • Northeastern University

Data Day Agenda

8:30 a.m. – **REGISTRATION and CONTINENTAL BREAKFAST** (Curry Student Center Ballroom)

9:00 a.m. **Exhibits and Data/Technology Demonstration**

- Neighborhood America
- ESRI
- MassGIS – Oliver
- Metropolitan Area Planning Council – Metro Boston Regional Data Repository
- The Boston Foundation – Boston Indicators Project Website
- Massachusetts Department of Public Health-MassCHIP
- U.S. Census Bureau – American FactFinder Website

9:00 a.m. – **KEYNOTE SPEAKER** (Curry Student Center Ballroom)

10:00 a.m. **Welcome and Introduction**

Heather Seligman, Center for Urban and Regional Policy, Northeastern
Marc Draisen, Metropolitan Area Planning Council
Charlotte Kahn, The Boston Foundation

“Using Data: Improving our Region through Collaborative Inquiry”

Nancy Love, TERC, - Ms. Love is director of the Using Data Project at TERC, a nonprofit research organization based in Cambridge where she works with schools nationally to improve teaching and learning through the use of multiple sources of school data. She is author of *Using Data/Getting Results: A Practical Guide to School Improvement in Mathematics and Science*.

10:00 a.m. – **A PREVIEW OF NEW INFORMATION RESOURCES** (Curry Student Center Ballroom)

11:00 a.m.

- **Panel Moderator** Gloria Cross-Mwase, Annie E. Casey Foundation
- **American Community Survey & Plans for 2010 Census** Kathleen Ludgate, U.S. Census Bureau
- **The Boston Indicators Project’s Enhanced Website** Charlotte Kahn, The Boston Foundation
- **Preview of the Metro Boston Regional Web Mapper and Data Viewer** Holly St. Clair, Metropolitan Area Planning Council
- **GIS Info on the Web: OLIVER** Christian Jacqz, MassGIS
- **Collaborative Regional Information Systems** Raj R. Singh, Open GIS Consortium

11:00 a.m. –

12:30 p.m.

INTERACTIVE WORKSHOPS

General (Curry Student Center Ballroom)

- **State of the Inner City and Why It Matters to the Suburbs** – Prabal Chakrabarti, Initiative for a Competitive Inner City

Level I

- **Data Basics** – John Avault, Boston Redevelopment Authority (Room 340, 3rd floor, Curry Student Center)

- **Using Data to Drive Public Policy** – Sheelah Feinberg, The Women's Union (McCloude Suites, Room 320, Curry Student Center)

Level II – Computer workshop, seats are limited. Please register in advance.

- **American FactFinder Website** – Arthur Bakis, U.S. Census Bureau – (36 Dockser Hall)
- **The BRA Boston Atlas Website** – Carolyn Bennett, Boston Redevelopment Authority (13 Dockser Hall)
- **Preview of the Metro Boston Regional Web Mapper and Data Viewer** – Tarin A. Comer and Myounggu Kang, Metropolitan Area Planning Council (145 Snell Library)
- **The Boston Indicators Project Website** – Sheri Lapatin and Jennifer Owens, The Boston Foundation (14 Dockser Hall)
- **Introduction to Mapping I** – Allan Bishop and Monique Beaujon, Metropolitan Area Planning Council (35 Dockser Hall)

Level III –United States Geological Survey-Sponsored Level (Senate Room, 3rd floor Curry Student Center)

- **Collaborative Regional Information Systems** – Raj R. Singh, Open GIS Consortium (OGC)

12:30 p.m. – **LUNCH** (*on your own*)

1:30 p.m. Exhibits
Data/Technology Demonstrations

1:30 p.m. – **STRATEGIC CHANGE IN IMMIGRANT COMMUNITIES** (*Curry Student Center Ballroom*)

- 2:45 p.m.
- **Panel Moderator** Carly Burton, Massachusetts Immigration and Refugee Advocacy Coalition
 - **Data and Strategic Planning for Action** Syra Pinto, Twin Cities Working Coalition for Latino Students
 - **Strategic Action: How to Combine the Data from Your Organization and Census-** Jessica Durrum, Centro Presente
 - **Trends in the Asian Community** Michael Liu, The Institute for Asian American Studies, University of Massachusetts, Boston

2:45 p.m. – **PRESENTATION OF AWARDS**

3:15 p.m. MAPC and the Boston Foundation will acknowledge and celebrate the accomplishments of organizations and individuals who have expanded residents' use of data to drive change in their communities.

3:15 p.m. – **INTERACTIVE WORKSHOPS** (*INCLUDING REPEATS*)

4:45 p.m. **General** (*Curry Student Center Ballroom*)

- **Data and the Media: How to Package Data and Pitch Your Story** – Matt Carroll, Boston Globe Reporter and Andrea Hurwitz, Metropolitan Area Planning Council

Level I

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- **Introduction to Mapping II** – Allan Bishop and Monique Beaujon, Metropolitan Area Planning Council (35 Dockser Hall)

Level III –United States Geographic Survey Sponsored Level (Senate Room, 3rd floor Curry Student Center)

- **Discussion of Collaborative Data Systems in Metropolitan Boston** – Discussion Moderator, Holly St. Clair, Metropolitan Area Planning Council

4:45 p.m. – **WRAP UP** (*Curry Student Center Ballroom*)

5:00 p.m. (Please turn in the Attendee Survey and conference evaluation.)

Sponsored by:

Metropolitan Area Planning Council
The Boston Foundation/Boston Indicators Project
Northeastern Center for Urban and Regional Policy

Massachusetts Institute of Technology
United States Geological Survey



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Workshop Descriptions

Level I

Data Basics– John Avault, Boston Redevelopment Authority. Data can be a persuasive tool for driving community change – if you know how to use it. This workshop will cover the basic rules for how to use data powerfully, effectively, and responsibly. Topics will include:

- Asking the right questions: save money, win friends, influence people
- Choosing the best data to prove your point – or to discover that you don't have a point
- Parsimony: getting the most explanatory mileage while killing the fewest number of trees
- Simplicity and clarity: do not annoy, frighten, confuse, infuriate, bore, or frustrate your audience
- Thinking critically about data – yours and other people's
- Conventions for the proper use of data: rules that can build people's trust in you
- Data display and format: finding the best way to tell your story
- Horror stories: some chilling examples of bad data

State of the Inner City and Why It Matters to the Suburbs – Prabal Chakrabarti, Initiative for a Competitive Inner City. Do successful suburbs need successful inner cities? To answer this and other questions, ICIC has developed the first-ever national database and benchmarking of inner city and regional economic performance – State of the Inner City Economies. This interactive workshop will open by presenting some ways in which inner cities can positively influence the rest of their regions. The implications of this are profound, and may well apply to low and moderate income inner ring suburbs. We will then discuss how to access and use this database. Importantly, the database contains employment data by regional industry cluster, and so the participation of inner city neighborhoods in the regional economy can be observed and understood. We will close by talking about how neighborhoods might use such data to shape their strategy to attract business investment and retailers, and shape urban and regional policy. **(This workshop is offered in the morning only)**

Using Data to Drive Public Policy– Sheelah Feinberg, The Women's Union.

This workshop shows how numbers can directly impact public policy. We look at the Massachusetts Family Economic Self-Sufficiency Standard (MassFESS) a measure of what families in Massachusetts need to earn to live work and thrive. The Standard is an alternative to the Federal Poverty Level which is used to determine income thresholds for people who qualify for work supports. More importantly, the Standard is used as a benchmarking tool when determining sound economic and workforce development policy. Data is a set of numbers, but when numbers tell stories, people all around listen. Hear how the Self-Sufficiency Standard has shifted the debate in economic development policy. **(This workshop is offered in the morning only)**

Data and the Media: How to Package Your Data and Pitch Your Story – Matt Carroll, Boston Globe and Andrea Hurwitz, Metropolitan Area Planning Council. A major vehicle for driving community change is the media, but how do you translate data into a news story? What do reporters look for and consider to be newsworthy? Learn these details and more at a session dedicated to packaging and pitching data for the media's use, and addressing both successes and challenges associated with this task. Long-time Boston Globe Reporter Matt Carroll will lead the session with Andrea Hurwitz, communications manager at the Metropolitan Area Planning Council. **(This is workshop is offered in the afternoon only)**

Level II - (Computer workshop, Seats are limited. Please Register in Advance)

Introduction to Mapping I & II – Monique Beaujon and Elizabeth Murray, MAPC. Mapping is the process of showing data in a geographical relationship. Introduction to Mapping I in the morning will introduce basic concepts of mapping, including different types of data, how to map your community thematically and examples of neighborhood applications. In the afternoon, Introduction to Mapping II is a hands-on session using computer based mapping software (ArcView by ESRI). Participants will work through a neighborhood mapping exercise using Geographical Information System (GIS) software. GIS is a computer system that collects, stores, manipulates, analyzes and displays information geographically.

American Fact Finder – Arthur Bakis, Census. Recent advances in technology have made Census data more accessible than ever before. The U.S. Census Bureau's web site provides local residents and officials with useful tools to access, research and manipulate data. This workshop will show participants how to use the Bureau's web-based American Fact Finder.

The BRA Boston Atlas – Carolyn Bennett, Boston Redevelopment Authority - The Boston Atlas is a web-based mapping application that gives the public access to geographic information for Boston and Massachusetts. Users don't need GIS or any special software other than a web browser to map the same layers of information used by city agencies. In the workshop we'll explore some of the many features as well as the current and historic information that can be mapped with The Boston Atlas. Participants will have access to work stations with Internet connections to explore the website.

The Boston Indicators Project Website - Sheri Lapatin and Jennifer Owens, The Boston Foundation. A demonstration of the Boston Indicators Project's updated and enhanced website <http://www.bostonindicators.org>, a tool for tracking change and accessing information, research, and resources about Boston, its neighborhoods and the region. This award-winning website presents trends, goals, measures and data in ten sectors (Civic Health, Cultural Life and the Arts, Economy, Education, Environment, Housing, Public Health, Public Safety, Technology, and Transportation). It also includes, for the first time, an emerging Civic Agenda reflecting the values and aspirations expressed by thousands of Project participants, with measurable milestones, as well as new interactive features: Greater Boston Cultural Resources Survey highlighting "vibrant expressions of cultural diversity;" Boston: Hub of Innovation, showcasing breakthrough technologies and practices in the ten sectors – from local to international; and the Greater Boston Data Portal, a "door" into the region's best and most comprehensive sources of data and information. Participants will also take part in a group activity to explore the use of indicators to drive social change.

Preview of the Metro Boston Regional Data Repository – Tarin A. Comer, Metropolitan Area Planning Council. Preview the Metro Boston Regional Data Repository (RDR) a free resource for community empowerment and collaboration. Designed to provide a clearer picture of neighborhood conditions, the information made accessible through the RDR allows for measurements of community change over time. It also strengthens the capacity for more responsive analyses of the impact of public policies and community-based initiatives on the lives of children and families in Metro Boston. The RDR contains data points of community health and well-being compiled from administrative data provided by participating partners over several years and available to the public at the Municipal, Census tract and block group levels.

Level III

Collaborative Regional Information Systems – Raj R. Singh, Open GIS Consortium and Holly St. Clair, Metropolitan Area Planning Council. Information fuels change! How do we harness the wealth of available data in our region and make it accessible to citizens and policy-makers across Metro Boston? The old model of a centralized data center is not efficient, cost effective or sustainable. In the morning session, Dr. Singh will present the technological advances to shifting the way we provide access to data and discuss resources that reduce costs associated with cross-departmental data sharing, processing, and collaborative analysis. In the afternoon session, community leaders, activists and representatives of state and local data providers will discuss how we can advance a collaborative regional information system for Metro Boston. **(Although some of the issues discussed in the Level III workshop are technical, all are welcome to attend.)**



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Speaker Biographies

Key Note Speaker:

Nancy Love is director of the Using Data Project at TERC, in Cambridge, Massachusetts, where she works with schools nationally to improve teaching and learning through effective and collaborative use of multiple sources of school data. She is author of *Using Data/Getting Results: A Practical Guide to School Improvement in Mathematics and Science* (2002, Christopher-Gordon Publishers, Inc.) and several articles on the process of data-driven decision making. Currently, she is co-developing a companion book to *Using Data/Getting Results* that will be a professional development guide for data facilitators. She also co-authored *Global Perspectives for Local Action: Using TIMSS to Improve U.S. Mathematics and Science Education Professional Development Guide* with Susan Mundry (2001, National Research Council) and *Designing Professional Development for Teachers of Science and Mathematics (Second Edition)* with Susan Loucks-Horsley, Kathy Stiles, Susan Mundry, and Peter Hewson (2003, Corwin Press). A seasoned professional developer, Love consults with schools to implement the process of collaborative inquiry, design effective professional development, and establish high-performing cultures.

Speakers and Workshop Presenters

John Avault is the Chief Economist for the Boston Redevelopment Authority. John has worked as a professional economist for thirty five years, a period that also spans his experience studying the Boston economy at the Boston Redevelopment Authority. His current position as Chief Economist provides him opportunities to investigate the city and regional macro-economy and the spatial distribution of population, housing, and business. In this capacity he works with transportation, development, housing, budget, and land use planners throughout city and state governments and the private sector. John studied economics at the Georg-August University in Göttingen, Germany and at the University of California, Berkeley after receiving his undergraduate degree from Harvard College. Besides the Boston Redevelopment Authority, he has worked at M.I.T., the Massachusetts Board of Higher Education, Harbridge House, the Coporacion Venezolana de Guayana, the Granville Corporation, the AFL-CIO Housing Investment Trust, and he has also conducted seminars on “Local Government in a Market Economy” in Russia and Uzbekistan.

Carolyn Bennett, Manager for Digital Cartography and Geographic Systems (GIS and Mapping) at the Boston Redevelopment Authority. Carolyn has many years' experience in GIS and land use planning. A graduate of the Univ. of Pittsburgh (MURP and BSc.), she has worked as a planner in Loudon Co., VA and Phoenix, AZ, and for the National Park Service in Washington, D.C. Recently, Carolyn worked in Vermont for a Regional Planning Commission and she also owned her own consulting practice, ThinkGIS. Carolyn has worked both in the public and private sectors. She has used GIS as a tool to analyze, review and evaluate land development projects, including using GIS as a visualization tool to represent development scenarios.

Allan Bishop directs the Geographic Information System (GIS) Lab at the Metropolitan Area Planning Council (MAPC). Mr. Bishop has 9 years of experience in the GIS field and has a professional background in the private sector. He is responsible for providing ongoing GIS technical assistance and support to a regional constituency, as well as maintaining a regional GIS database. MAPC provides coordination, training and support of GIS resources and activities for the region's 101 member communities. Mr. Bishop received a Bachelor of Science Degree in Earth and Geographic Science and a Certificate in Geographic Information Technologies from the University of Massachusetts. He holds a Masters in Management Degree with a Certificate in Business from Cambridge College.

Matt Carroll, a reporter at the Boston Globe since 1987, is currently covering community news south of Boston. One of his specialties is turning databases of information into stories. Working alone or with other reporters, he has crunched data for articles on property tax revenue, police salaries, and the priest sexual abuse scandal. Previously, he was a member of the Spotlight investigative team for six years, covered the MetroWest suburbs, and wrote about real estate. He is a graduate of Northeastern University. The Boston resident is married with four children.

Prabal Chakrabarti joined Initiative for a Competitive Inner City in 2003 and serves as Deputy Director for Research. Principally, he manages the State of the Inner City Economies, a groundbreaking project that assesses the economic competitiveness of the inner city in America's 100 largest cities. He has frequently spoken on behalf of ICIC about competitiveness, including at the Economic Development Administration National Forum, the National Main Streets Conference, and the LISC Urban Forum. Previously, Prabal worked in economic policy at the U.S. Treasury Department, as a manager at the Ernst & Young Center for Business Innovation, and was a member of the U.S. Delegation to the UN Conference on Climate Change. He consults to the United Nations Development Program for its commission report entitled "Unleashing Entrepreneurship," and previously consulted in economic development in Armenia and Trinidad.

Gloria Cross-Mwase is the local representative for the Annie E. Casey Foundation. She works with the Boston Site Team Leader in establishing an on-the-ground presence as the agenda setting work emerges in Boston. She engages in activities to build relationships with key local stakeholders, including funders, elected officials, government agencies, school officials, universities and colleges, community-based organizations, families and key individuals. Gloria is also a doctoral candidate in Public Policy at the University of Massachusetts Boston.

Jessica Durrum is Interim Executive Director at Centro Presente, a member-driven, statewide Latin American immigrant organization that combines community organizing, leadership development and basic services to give its members a voice and build community power. She joined Centro Presente in 2000 as an immigration paralegal and in 2002 she was promoted to Director of Development. She is currently serving as Interim Executive Director in the absence of Maria Elena Letona, who is on sabbatical as part of the Barr Fellows program for Boston area nonprofit leaders.

Sheelah A. Feinberg, Director of Advocacy, came to the Women's Union in July 2002 with over a decade of public policy experience in a variety of areas including political campaign outreach, fund raising, grant development, and budget analysis. Most recently she was the Special Assistant to the Co-Executive Director of Initiative for a Competitive Inner City. She was the Massachusetts Political Director for the Clinton/ Gore '96 Election. She served in the Clinton Administration from 1997-1998 as the Deputy Associate Director of Presidential Personnel. She received a Master of Science in Administration, a degree that combines the curriculum of an M.B.A. and an M.P.A. from Saint Michael's College. Sheelah serves on the Jamaica Plain Neighborhood Council on both the Executive Committee and on the Housing and Development Committee.

Andrea Hurwitz is the Communications Manager at the Metropolitan Area Planning Council, where she is responsible for the agency's media relations, website and other components of its public relations. She is an active member of MAPC's legislative team and oversees communications activities for MAPC's *MetroFuture* project. *MetroFuture* is the agency's initiative to develop a plan to guide Metro Boston's growth through 2030. A Peabody native who now lives in Boston, Andrea recently ran the Boston Marathon and is now training for the Chicago Marathon.

Christian Jacqz is the Director of MassGIS in the Executive Office of Environmental Affairs (EOEA), where he started as an intern in 1989. The MassGIS program serves as a GIS data repository and technical resource for state agencies, regional and local governments and the private sector. Christian has provided leadership and direction for a wide variety of GIS projects including: several statewide orthophoto layers; build-out analyses for all 351 Massachusetts communities; inventory of protected open space; a GIS-linked biodiversity database; watershed analysis software; standardized municipal parcel mapping, free software and GIS data including municipal GIS "starter kits"; and Internet access to GIS through OGC based mapping services. Christian has lectured or led seminars at MIT, Harvard, Tufts and other area universities.

Charlotte Kahn co-founded and directs the Boston Indicators Project at the Boston Foundation, Greater Boston's community foundation. The Project's purpose is to democratize data and information, foster informed public discourse, and measure progress on shared civic goals in ten sectors at the neighborhood, citywide, and regional levels. Along with a biennial Summary Report from 2000 through 2030, Boston's 400th anniversary, the Project's comprehensive indicators reports are available at the award-winning, interactive www.bostonindicators.org. Ms.

Kahn also serves as a Board member of the Codman Square Health Center and is a member of the Steering Committee for MetroFuture, MAPC's participatory planning process for the Boston region. Charlotte is the former long-time Executive Director of Boston Urban Gardeners and previously directed the Boston Persistent Poverty Project at the Boston Foundation. She attended Cornell University, was awarded a Loeb Fellowship in Advanced Environmental Studies at Harvard University's Graduate School of Design, and holds a Master's degree from Antioch University.

Sheri Lapatin joined the Boston Indicators Project in 2004 as Project Associate, responsible for research, writing, updating, presenting and continuously improving the Boston Indicators Report, its website and related publications and products. She worked for several years on international development programs and research at the Hunger Project in New York, and has consulted with the United Nations Development Group Office, the Pan American Development Foundation in Washington, Promocion del Desarrollo Popular in Mexico City, and the Metro North Regional Employment Board in Cambridge. Sheri holds a Bachelors degree from Brown University and a Masters from Columbia University's School of International and Public Affairs.

Michael Liu is a research associate at the Institute for Asian American Studies at UMass Boston. He received his Ph.D. in Public Policy from UMass Boston. He has published numerous papers on demographic change, political participation and organizing, and immigrant business focused on the Asian American community. Previous to his research career, he was a community activist and has co-founded a number of community organizations, including Chinese Progressive Association, Asian American Resource Workshop, Asian American Movement Ezine, and the Boston Rainbow Coalition.

Kathleen Ludgate, Director of the US Census Boston Regional office is responsible for gathering demographic and economic data from households in Connecticut, Maine, Massachusetts, New Hampshire, most of New York state, Rhode Island and Vermont, as well as Puerto Rico. A graduate of Marywood University in Scranton, Pennsylvania, Ms. Ludgate started her Census Bureau career in Washington, D.C. in 1975 as a mathematical statistician. She analyzed data for economic surveys and developed quality control procedures associated with the 1980 Census. After the 1980 Census, Ms. Ludgate helped establish and manage the Information Services Program, which was designed to provide data access and user training through the Census Bureau's 12 regional offices. In 1983, Ludgate began her career in the Boston regional office, then in 1988 became the region's assistant director. For 20 years as the region's assistant director, she was responsible for data collection and outreach activities throughout New England, upstate New York, and Puerto Rico. Ludgate received the Census Bureau's Bronze Medal in 1991, the U.S. Department of Commerce's Silver Medal in 1998 and the Boston Federal Executive Board Award of Excellence in 2000.

Jennifer Owens is Program Coordinator for the Boston Indicators Project, responsible for planning and coordinating convenings, briefings and special events, and for updating and maintaining the Indicators website and special features. She has worked as an academic tutor for Do The Write Thing girls' program at Generation Excel, Parkside Christian Academy, and as an

intern at the Environmental Protection Agency and the Boston TenPoint Coalition. Jennifer graduated from Boston University in 2004 with a Bachelor's degree in History and International Relations. She is also an accomplished vocalist.

Sayra Pinto is the Executive Director of the Twin Cities Latino Coalition. The Coalition is an organization put together through a cross sector effort to increase parental involvement and Latino student academic success in the communities of Fitchburg and Leominster, Massachusetts.

Raj Singh is the Director of Interoperability Programs for Open Geospatial Consortium, an international industry consortium of more than 270 companies, government agencies and universities participating in a consensus process to develop publicly available interface specifications. Dr. Singh has made significant business and research contributions to the geospatial industry. Most recently, he served as Information Architect at Parsons Brinckerhoff, Inc., where he researched spatial technologies and technology areas for integration into the corporate growth strategy. He was also co-founder and CTO at Syncline, Inc., a Geographic Information System (GIS) company. Prior to Syncline, at the Massachusetts Institute of Technology (MIT), Dr. Singh's work focused on the use of Web services to reduce transaction costs associated with cross-departmental data sharing, processing, and collaborative analysis, and on predicting urban "nodes" of successful retail and residential development. Dr. Singh holds Doctorate and Masters degrees in City Planning from MIT and a Bachelor of Arts degree in Economics from Brown University.

Holly St. Clair is an accomplished and successful data center leader. Currently she is Director of the Metro Data Center, Metropolitan Area Planning Council. She is responsible for data management, data analysis, policy research, and the creation of an online interactive data resource for the Boston Metropolitan Area. This data is used in a variety of operational and project-based applications, all designed to address regional and local planning needs for over one hundred communities in Eastern Massachusetts. The data center also supports the organization's planning studies for a number of these communities. Before joining the Council, Holly was a research and development analyst for the City of Boston's Department of Neighborhood Development. She published the quarterly, definitive resource on Boston housing trends "Real Estate Trends" and developed systems for real estate analysis. Previously she worked as an independent consultant in the technology, energy and community improvement areas. Holly holds a Masters of Urban and Environmental Policy from Tufts University and a Bachelor's Degree in Environmental Policy from Boston University. She was a 2003 fellow of the University of Massachusetts Emerging Leaders program.