

The Brookings Institution

Metropolitan Policy Program

Connectedness: The New Imperative for Digital Cities in the Knowledge Economy

Digital City Expo
April 19 2005



The Network Changes Everything ...

Industry EC
Investment



Source: Gartner Group, 1999

As we build a networked world, will some states, regions and industries be left behind?

Broadband has a pervasive impact

- Spurs and retains jobs and economy
- Builds competitive advantage of cities/metros/regions
- Energizes neighborhoods of choice and connection



Facts and Figures

- ICT contribution to productivity growth, 1990-2000: 12%-20%
 - US: (Afusso and Waverman, February 2002)
 - UK: Analysys (2002) estimated 16% for UK
 - Australia: Allen (2003) estimated 15,000 jobs increase on a base of 1 million jobs in urban Brisbane and Moreton
- \$500 Billion opportunity; almost 5% GDP
 - (Crandall, Brookings Institution, 2000)
- 75% of industry respondents in e-commerce surveys argue that e-commerce adoption has improved productivity in their enterprises.
 - (ECom-Ohio, 2000-2003)



Facts and Figures

- No. of broadband lines increased by 18% in 2002 (FCC), but US is ranked 13th in the world!
- Some prices lower by 50% in past year:
 - From \$40 per month to \$25 per month
- Where does this happen? In local competitive markets, which have:
 - 2 technologies
 - 3 providers
- Lower prices dramatically increase uptake
 - Horizon Telecom, Ross County, Ohio
 - Broadband usage rates of more than 75%



One Community's Impact

- South Dundas Township, pop 11000, Ont.
 - Rural and semi-rural villages
 - Manufacturing plant, construction jobs, smaller agricultural, retail and service sectors
 - Loss of 600 jobs over 1990s
- Fiber network installed July 2001
 - 537 new jobs in first 18 months
 - \$2.8 million in real estate expansion
 - \$16.7 million increase in retail sales
 - \$3.8 million in new tax revenues
- Source: Montana Associated Technology Roundtable (www.matr.net)

...and companies look for these attributes in regions

- Typical “knowledge company” facility search criteria:
 - % of people online, using interactive applications
 - % of population covered by broadband services; % of population using broadband services
 - % of businesses with websites, using rich applications
 - Number of Internet POPs in local area
 - Bandwidth and redundancy of local telecom infrastructure



How Broadband Supports a Competitive Economy

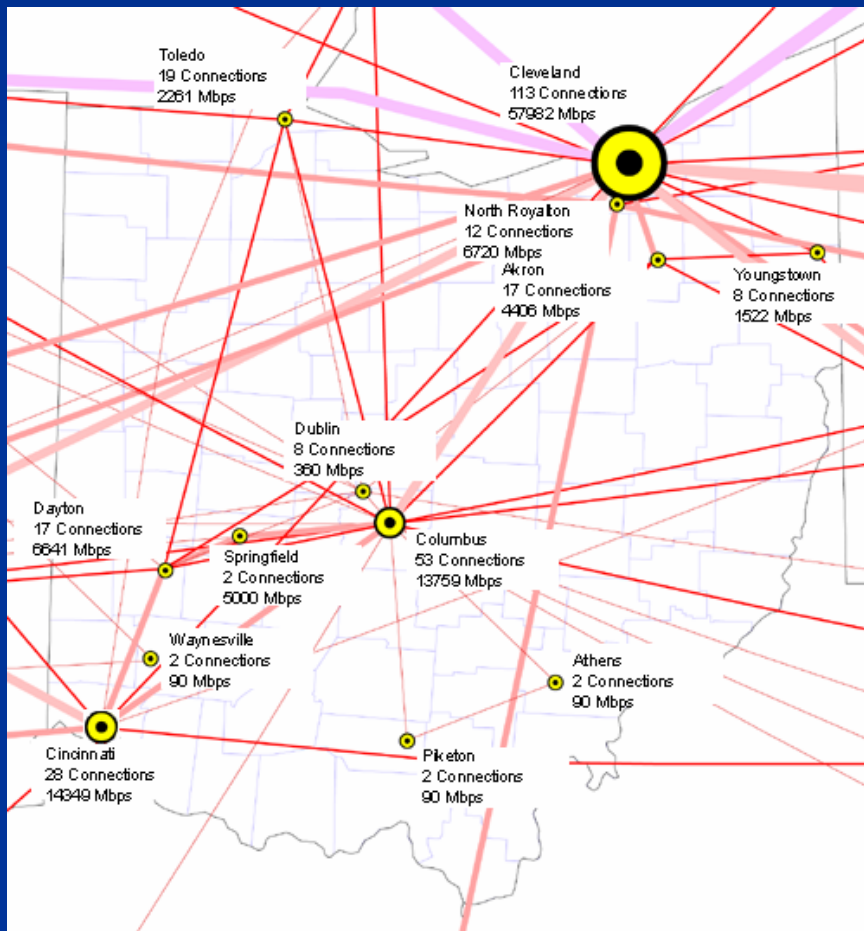
- **The Learning Enterprise**
 - Critical for educated workforce and those dedicated to valuing knowledge and utilizing it
 - Facilitates distance education
- **The Culture of Innovation**
 - Web-based applications increase exponentially with access to broadband
 - Critical for businesses to facilitate B2B commerce and supply chain activities
- **To Achieve a Top Ten Standard of Living**
 - Broadband Access will be a prerequisite for participation in the Networked World

(Taken from State of Louisiana Vision 2010 Plan)

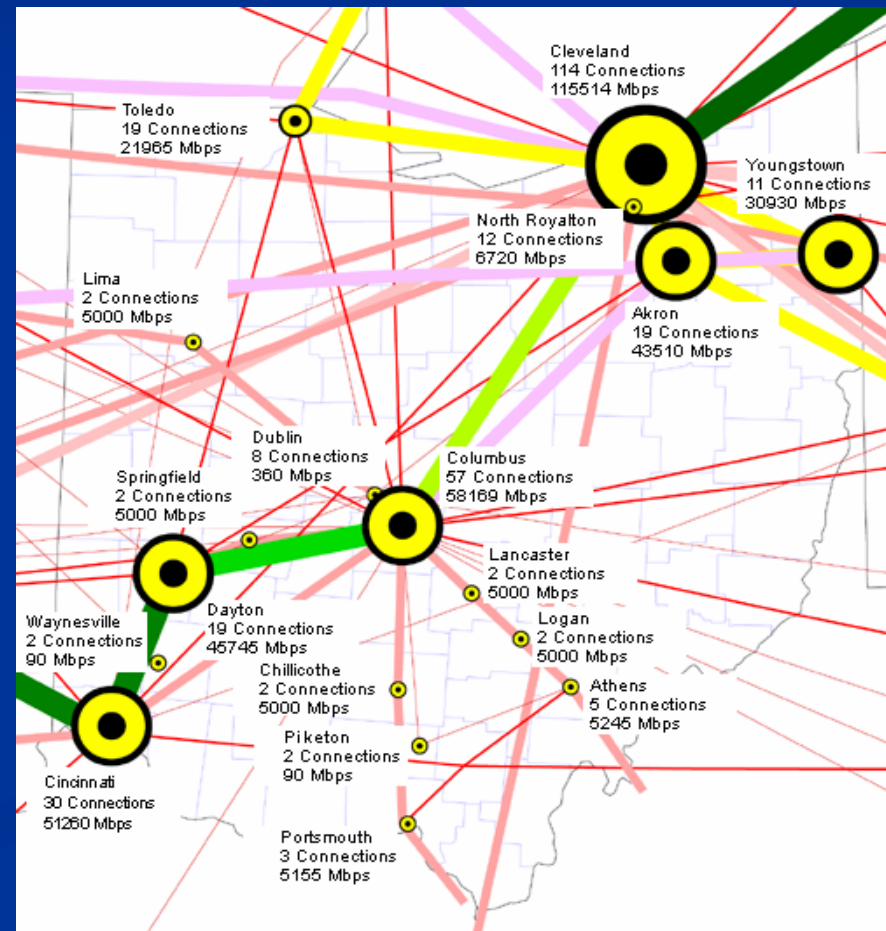


Location is everything...if you're connected

Ohio Bandwidth May 2000



Ohio Bandwidth Sept 2000



Why Connectedness is important

- 20th century infrastructure challenges:
 - roads, sewers, transportation systems, sprawl



- 21st century challenge: connectedness
 - Building communications infrastructure
 - Creating connectedness within, among, between communities
 - Using that connectedness to compete in the global economy and map the future

Building the Infrastructure

- Exciting, mind-numbingly powerful technologies expanding rapidly, more arriving every day
- Technologies are available to other players in the game: India, China
- Costs associated with mistakes are frightening to contemplate: Coshocton, Ohio
- Institutions, policies, practices are not designed or trained for the complexities of the new world
 - Regulations, markets, players

Market Dynamics Today

- States making huge investments in middle mile
 - Powers e-government applications
 - State administrative networking needs
 - Often includes research and education high speed networking
- Cities need to be advocates to get an “off ramp” built in their area
 - Michigan’s LinkMichigan Program
 - Ohio’s Third Frontier Network –wireless links
 - Connecticut’s CEN –add competitive providers to rural markets



The Power of Connectedness

- Support better public choices
- Link citizens to their government and to the economic mainstream
- Make our communities competitive places for investment in the next decade
- Map our future, set goals and measure progress
- Support civic democracy

Connectedness...

- ... Powers Robust Community Information Systems
 - Memphis
 - <http://suds.memphis.edu/>
 - Providence
 - <http://www.provplan.org/>
 - Philadelphia
 - <http://www.trfund.com/policy/policy.rema.methodology.htm>

Map Display

Public
Portal

Secure
Portal

Reports

What Is
SUDS?

Projects

Links

Staff

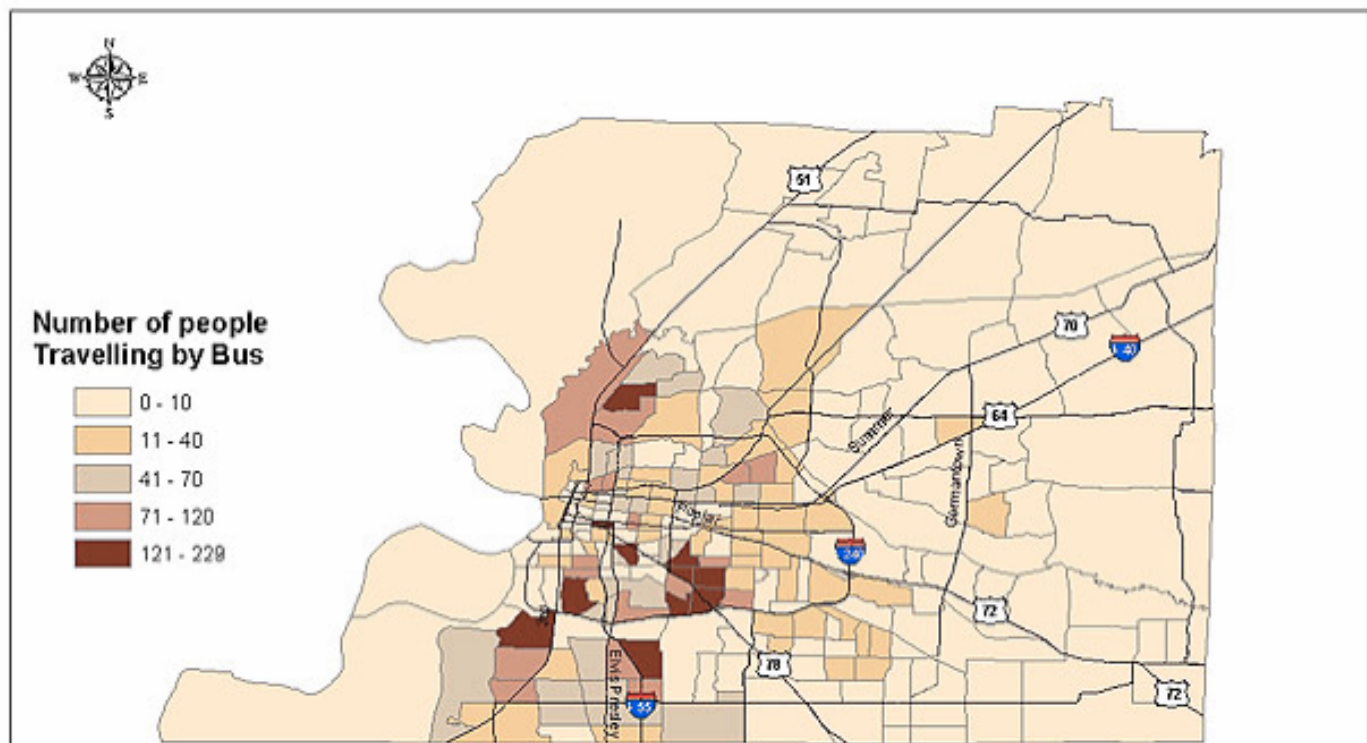
What's
New

Home

How many people ride MATA to work? [\(BACK\)](#)

SHELBY COUNTY

People Travelling by Bus





Profiles > Fox Point

**Quick Maps of
Fox Point:**

Aerial Photo (GIF)

Land Use (GIF)

City Wards (GIF)

Diversity (GIF)

Open Space/ Parks/
Recreation (GIF)

Public Facilities (GIF)

Service Providers (GIF)

PDF versions of the above
maps are available here.**Fox Point at a Glance:**

Citywide statistics shown in parenthesis ().

SIZE 0.81 square miles (18.2)**POPULATION** [Pyramid Chart](#)

Households 2,478 (62,389)

Individuals 4,867 (173,618)

8.2% Under 18 (26.1)

DIVERSITY Pie Charts: [Race](#), [Hispanic](#), [Combined](#)78.6% White (54.5) 4.3% Black or African
American (14.5)

76.4% Non-Hispanic White (45.8) 4.4% Hispanic (30.0)

6.4% Asian or Pacific
Islander (6.2) 0.6% Native American (1.1)4.0% Other (17.6) 6.1% Claimed 2 or more
races (6.1)

24% of Public school children with...

[Primary Language Other than English](#) (54)**MEDIAN FAMILY INCOME** \$55,315 (\$32,058)**MEDIAN HOUSEHOLD INCOME** \$28,858 (\$26,867)**FAMILIES BELOW POVERTY** 8.3% (23.9)**HOUSEHOLDS ON PUBLIC ASSISTANCE** 2.0% (10.2)**HOUSING**

Total number of housing units: 2,658 (67,915)

23.4% Owner-occupied housing units (34.6)

Pie Charts: [Ownership by Race](#), [Renters by Race](#)

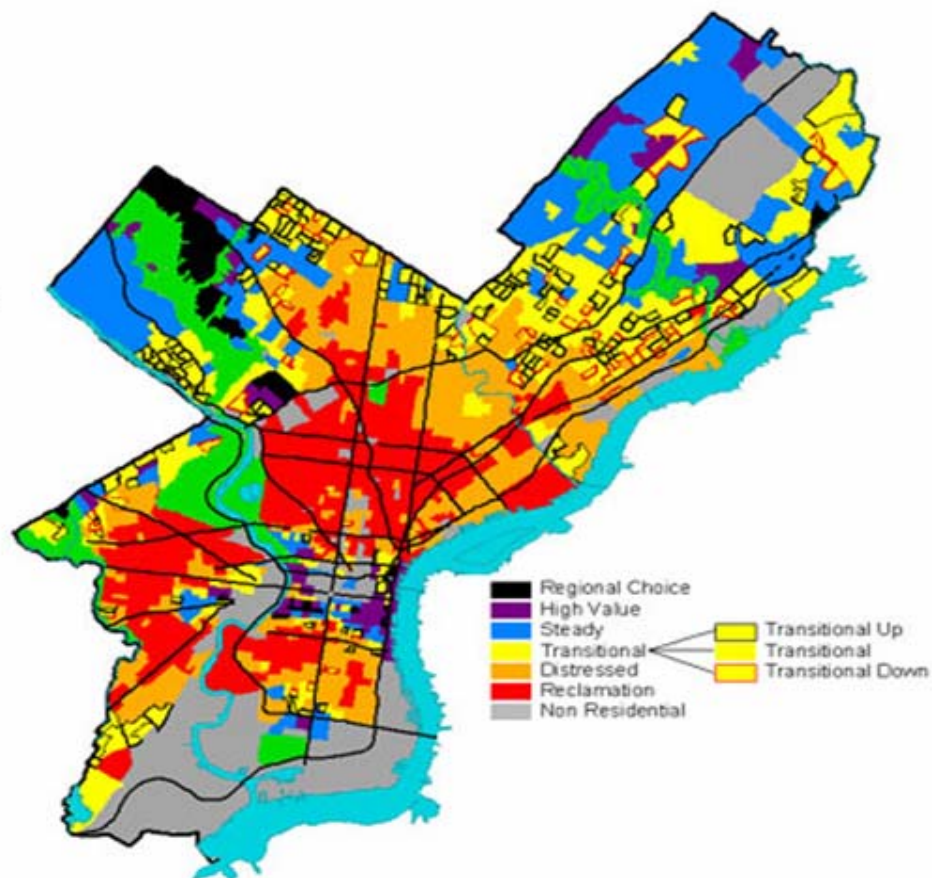
14.5% Single-family units (26.4)

21.6% Duplex units (22.2)

Fox Point in Depth:

[People](#)[Property](#)[Economics](#)[Education](#)[Health](#)[Background](#)[Local Links](#)Last Updated:
8-aug-03HAVING TROUBLE
SEEING THE MAPS
AND CHARTS?**READ THIS**

This map is an example of TRF's ground-breaking data analysis in support of Philadelphia's Neighborhood Transformation Initiative. As part of its analysis, TRF developed a taxonomy of market types and linked the taxonomy to prioritization of public action. The map depicts the market types for the city of Philadelphia with orange and red indicating markets in severe distress, and yellow indicates markets in transition. According to TRF's research, these are the areas where strategic public investments and interventions can make significant changes.



Connectedness...

- Creates links between, among and within communities:
 - The Beehive
 - <http://www.thebeehive.org/>
 - LILA Los Angeles
 - <http://lila.ucla.edu/>
 - Murmur, Toronto
 - <http://murmurtoronto.ca/>



Email



Local



Languages


March 21, 2005

Make the Beehive Your Own! Free email, Local Content & More!

MONEY 

HEALTH 

SCHOOL 

JOBS 

FAMILY 

Insurance

Top Five Links:

1. [Building a budget from top to bottom](#)
2. [Too much bottom for what's on top?](#)
3. [Think you're ready for the SATs or ACTs? Make sure](#)
4. [Do's and Don'ts for that brand new job](#)
5. [Worried about not having any health insurance?](#)



Career Coach ▶

Find a career and get on a career track.

What Can I Help You Find?

Type your question in the white box, and click "ask."

Ask a question

Ask®



[Get Local Weather](#)



Let the **TRUTH**
move you

Thinking of
buying a home?
Worried you won't
be able to?

Free info and
classes here...

Feedback

Got a great idea? Got
a suggestion for the
site? Email us at:
[feedback@
thebeehive.org](mailto:feedback@thebeehive.org)

THE *buzz*

The Beehive's
Free Weekly Email
Newsletter

Email:

Zip Code:

Poll Question

Have you done your taxes?

☐ yes

☐ no

☐ ay, ay, ay

[Everything you need to get
your taxes done and save
\\$1000s](#)

HOME

SITE MAP

HELP/FEEDBACK

OTHER TOPICS ▼

Money

Health

School

Jobs

Family

MY BEEHIVE ▼

Sign In Or Register

Money Topics

Life Events



A program by

**WELLS
FARGO**



Kelly was getting offers to sign up for a credit card but didn't know if they were a good idea. The Beehive told her how she could be smart about credit cards and avoid getting into debt.

[Click here for more.](#)

**What Kind of
\$pender
Are You?**

Take This Quiz -->

 **Take
Action**

- [Get Thousands Back on Your Taxes!](#)
- [Manage Your Cash with a Checking Account](#)
- [Start Saving Now](#)
- [Learn to Use an ATM](#)
- [Create a Budget](#)
- [All About Credit](#)
- [Plan for retirement with a 401\(k\)](#)
- [Learn the costs of payday loans](#)
- [Avoiding Predatory Lenders](#)

MONEY NEWS

WHAT CAN I HELP YOU FIND?



[Home](#)



[Survey](#)



[Maproom](#)



[Resources](#)



[What's New](#)



[Housing](#)



[Advocacy](#)



[Forum](#)



[Links](#)



[Calendar](#)



Living Independently in Los Angeles

- [Tell me more about LILA](#)
- [Founding Organizations](#)
- [Why should I register?](#)
- [LILA Community Partnerships](#)
- [LA Disability Community Profile](#)



Maproom

Find services, housing, activities, businesses and other independent living resources by searching on interactive maps.

- [Visit the interactive LILA maproom](#)



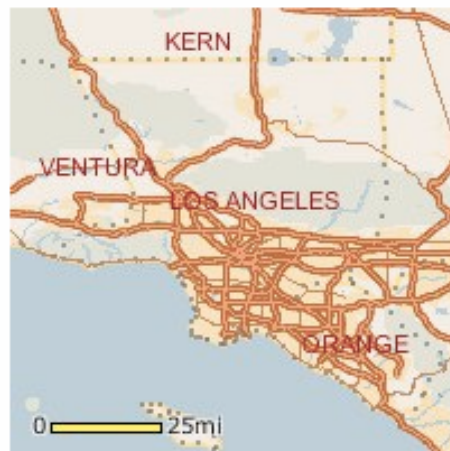
Forum

- 2 days ago [Iowa ILC ED Position Open](#)
- 3 days ago [Movie Screening to Benefit Western Law Center for Disability Rights!](#)
- 3 days ago [ADVOCATING THROUGH](#)



Calendar

- 3/21/2005 [Make \\$50 - Focus Group- How accessible is medical equipment?](#)
- 3/22/2005 [Transportation Workshop](#)
- 3/23/2005 [ADVOCATING THROUGH THE](#)



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Password

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 - [Kensington Market](#)
- [Vancouver](#)
- [Montréal](#)

To receive occasional email updates about [murmur], enter your email address below:

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news

January 19, 2005: **Location is Everything**

Today Rhizome's online exhibit "Location is Everything" launched, featuring some excellent web-based mapping/locative projects, including [murmur]. Thanks to Jillian McDonald and Kevin McGarry. Visit the exhibit here: http://rhizome.org/art/exhibition/location_is_everything.

January 13, 2005: **Nomination!**

[murmur] has been nominated for an [Untitled Art Award](#) in the category "Best Exhibition/Project in Virtual Space". The winners will be announced at an event on February 16th at the Steam Whistle Roundhouse in Toronto.

October 8: **[murmur] at the Drake Hotel**

[murmur] has established a site at the [Drake Hotel](#) as part of the [McLuhan Festival of the Future](#). Stop by the Drake during the festival and beyond to hear stories about the Hotel and the Queen West Neighbourhood. Look for the green [murmur] ear!

August 19: **[murmur] in the Annex**

[murmur] in Toronto's Annex neighborhood launches today! Thanks to the Toronto Arts Council for their support for this launch.

This week's City feature in eye Weekly is about [murmur],

Connectedness...

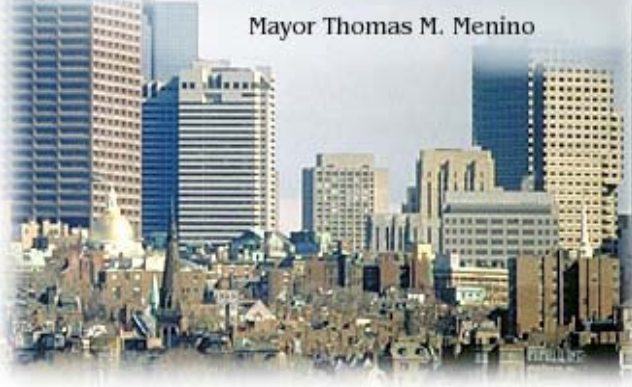
- Supports strong levels of public choice and helps to map the future
 - The Boston Indicators Project
 - <http://www.tbf.org/indicators/>
 - Baltimore's "Vital Signs"
 - <http://www.bnja.org/indicators/index.html>

Executive Summary	Civic Health	Cultural Life and the Arts	Economy	Education	Environment	Housing	Public Health	Public Safety	Technology	Transportation
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Creativity and Innovation: A Bridge to the Future

"The Boston Indicators Project is a major accomplishment that has become the envy of other cities. It examines our current situation from a historical perspective and provides us with a roadmap to the possibilities of the future."

Mayor Thomas M. Menino



The Indicators Project

The award-winning Boston Indicators Project is a civic initiative coordinated by the Boston Foundation in partnership with the City of Boston/BRA and the Metropolitan Area Planning Council. Its success stems from the commitment, expertise and engagement of project participants.

The Project's purpose is to foster informed civic dialogue and to track progress on shared goals. To that end, it sponsors

The Indicators Report

WELCOME! Updated regularly with new information and reports, this interactive website features indicators of change and progress in ten sectors (see above).

2002 Report Summary



New @ Indicators

11/30/2004

News @ Civic Health

[MassVOTE highlights gains in voter turnout](#) in November 2004 election



[Boston Unbound: Tapping Greater Boston's Assets and Talents to Create a World-Leading Citistate](#), was commissioned by the Boston Foundation to

explore the most critical challenges facing the region. Suggest a [Bold Maneuver](#).

Boston Breakthroughs: 400 Years of Social and Nonprofit

[Innovations](#), by the Boston History Collaborative, recounts Boston-based social and nonprofit breakthroughs that changed society.



News @ Cultural Life & The Arts

"[Culture is our Common Wealth](#)" -- an action agenda to increase resources for cultural organizations

Special Features



Using this Site

[Click here](#) to learn about all of the website features and how to use them.

At a Glance

See statistical profiles for [10-year changes](#) in:

- [Metro Boston](#)
- [Metro Boston's Inner Core Communities](#)
- [City of Boston](#)
- [Boston Neighborhoods](#)



Crosscut Filters

Travel through the report and explore special topics across Indicator categories by:

- [Boston Neighborhoods](#)
- [Children and Youth](#)
- [Competitive Edge](#)
- [Race/Ethnicity](#)
- [Sustainable Development](#)

Select...



[About Vital Signs](#)

[Vital Signs](#)

[Explanations](#)

[Vital Signs 3](#)

[Community](#)

[Statistical Area](#)

[Profiles](#)

[Co-Sponsors](#)

Indicators: VITAL SIGNS 3

VITAL SIGNS 3.....IT'S HERE!

Now see the progress Baltimore has made from 2000- 2003!

Now you can get the most accurate and reliable **Vital Signs** that begin to measure progress toward long-term results for strong Baltimore City neighborhoods, good quality of life, and a vital Baltimore City over time!

You can access the **Vital Signs** in several ways:

Download [Vital Signs 3](#) containing all the **Vital Signs**, explanations, and more!

Download certain [topic area sections](#)

Download a profile of your CSA from the [Community Statistical Area Profiles](#) page

Request a hard copy from the [Alliance](#) main office

Download the [census tract level](#) tables! (the level closest to your neighborhood)

Go to the [Statistical Interactive Mapping System](#) for the **CSA level** and **census tract level** for the new Vital Signs!

The Alliance is committed to continue tracking these trends over time and working with various stakeholders to use them in a **results-based approach to decision making**.

Questions, Comments?

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