

# The Boston Indicators Project

Measuring what we value - a project of Boston's civic community

- Civic Vitality
- Cultural Life & the Arts
- Economy
- Education
- Environment & Energy
- Health
- Housing
- Public Safety
- Technology
- Transportation




**A Time Like No Other**  
*Charting the Course of the Next Revolution*

## **CITIES: PLACES OF WELL BEING OR ILL BEING?** **Creating a Shared Frame of Reference**

**The Boston Indicators Project**  
**The Boston Foundation**

**3<sup>rd</sup> OECD World Forum on Statistics, Knowledge & Policy**  
**Busan, Republic of Korea**  
**October 29, 2009**

Click on 

[www.bostonindicators.org](http://www.bostonindicators.org)

for an enhanced website about Boston and the region—with data, maps, charts and links

# **Boston, Massachusetts, USA:** **a regional hub with global reach**

**Global hub of innovation:** High tech, financial services, life sciences, green/clean tech

**A small “big” city of 600,000:** Financial & cultural capital of New England

**World-class educational institutions:** 260,000 students

**Increasingly multicultural:** 50% of color, 28% foreign-born



# **The Boston Indicators Project:**

## **A partnership of the Boston Foundation, City of Boston & Metro Area Planning Council**

### **ITS GOALS ARE TO:**

- 1. Democratize access to data & information;**
- 2. Foster informed public discourse;**
- 3. Track progress on shared civic goals.**



# The Project tracks change and progress in 10 primary sectors and 6 “cross-cuts”

## PRIMARY SECTORS

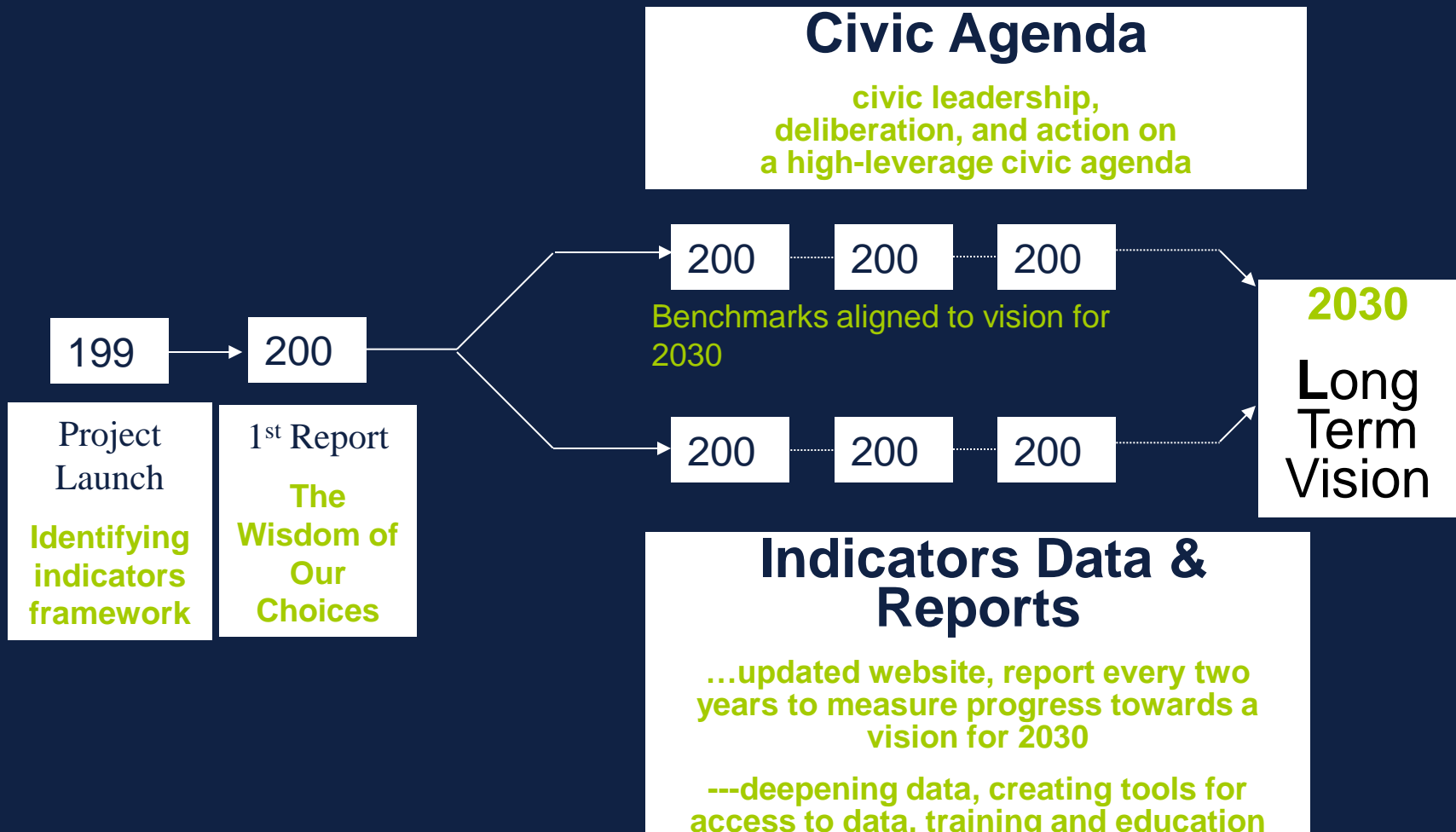
1. Civic Vitality
2. Arts
3. Economy
4. Education
5. Environment
6. Health
7. Housing
8. Safety
9. Technology
10. Transportation

## CROSS-CUTS:

- *Children & Youth*
- *Neighborhoods*
- *Racial/Ethnic Disparities*
- *Sustainability*
- *Competitiveness*
- *Fiscal Health*

# The Project has a long time frame— through 2030—and two tracks:

- 1) Data
- 2) Civic Agenda



The Boston Indicators Project  
Measuring what we value in a project of Boston's core community

[Civic Vitality](#)
[Cultural Life & the Arts](#)
[Economy](#)
[Education](#)
[Environment & Energy](#)
[Health](#)
[Housing](#)
[Public Safety](#)
[Technology](#)
[Transportation](#)

GEOPHYSICAL:  
 GEOGRAPHY AT A GLANCE:  
 SEARCH:

**The Boston Indicators 2004-2006 Report has been released!**

**A Time to Act**  
A Study of the Boston Metropolitan Area  
2004 - 2006

Download the report here.

Report available for:

Select a Crosscut:  
 All  
 Economy  
 Education  
 Environment & Energy  
 Health  
 Housing  
 Public Safety  
 Technology  
 Transportation

Select a City:

Select a Year:

Select a Metric:

Select a Metric:

Select a Metric:

**The Hub of Innovators**  
See the future in technology products, programs and practices—most of them are in the 12 sectors tracked.

**Metropolitan Area Planning Council**

Metropolitan Area Planning Council (MAPC) is a regional planning agency representing 22 cities, 79 towns, and 3,067,000 people. Its area includes 1,422 square miles stretching west from Boston to Route 495. To enhance the region's quality of life and economic competitiveness, MAPC is engaging residents and planners in creating a new 25-year plan, **MetroFuture**.

Visit the Boston Indicators Project website often to find the latest research, download data, and view charts and analysis tracking Boston's progress in a regional context across the 12 sectors above, with additional cross-cuts such as Sustainable Development, Place & Mobility, and Climate & Youth. Interactive features and links to numerous data-rich resources.

The Boston Indicators Project  
Metropolitan Area Planning Council

## MetroBoston DataCommon

[ABOUT THE PROJECT](#)
[WHAT'S NEW](#)
[SAMPLE MAPS](#)
[QUICK GUIDE](#)
[LINKS](#)
[CONTACT & TECH SUPPORT](#)

**Getting Started**  
Introduction to the website.

**Community Snapshots**  
Choose a Community  
Instant statistics and maps in PDF.

**DataMap Tool**  
Go to the mapping tool.

**Available Data**  
General Population Statistics  
 • By Municipality  
 • By Census Tract  
 • By Tract Group

**Data by Topic**  
 • Arts and Culture  
 • Civic Vitality and Governance  
 • Economy  
 • Education  
 • Environment and Recreation  
 • Housing  
 • Public Health  
 • Public Safety  
 • Technology  
 • Transportation  
 • Zoning and Land Use

**Imagery**  
 • Available Image Maps

**Geographic Map Layers**  
 • Available Geographic Layers

**Special Data Sets**  
 • Available Special Data Sets

**Regional Map Gallery**  
Sample maps with explanations.

**Welcome to MetroBoston DataCommon**

MetroBoston DataCommon is a new online mapping tool. A partnership between the Metropolitan Area Planning Council (MAPC) and the Boston Indicators Project, it makes available a wealth of data about 101 cities and towns in Eastern Massachusetts. Explore data, print out instant community snapshots or maps, and create your own datamaps.

**What's New?**

**New Suburban Mobility/TDM Program Special Datasets**

**Upcoming Free Training Sessions:**  
**May 15 - Roxbury**  
**May 24 - Acton**  
**June 4 - East Boston**

**The Boston Indicators Project**

The Boston Indicators Project is coordinated by the Boston Foundation in partnership with the City of Boston and MAPC. It measures and reports on change in Boston in ten sectors. The Boston Indicators Project links to recent research and other data-rich websites. It features a Hub of Innovation, At-A-Glance indicators and profiles, and a Civic Agenda.

**Metropolitan Area Planning Council**

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Aerial Orthophotographs, 2005, Boston Common, Data Source: MassGIS

**A Time Like No Other:**  
*Charting the Course of the Next Revolution*



A Summary of the  
Boston Indicators Report  
2004 – 2006

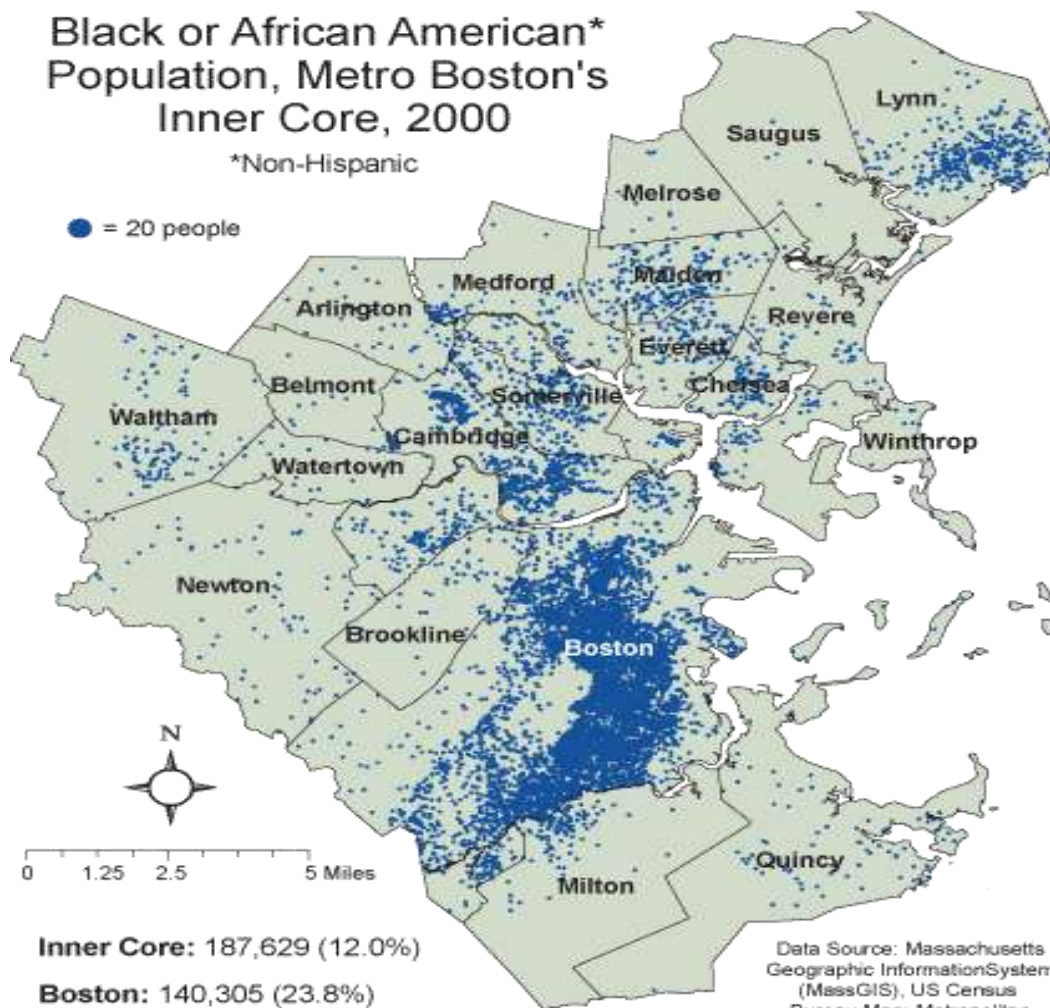
[www.bostonindicators.org](http://www.bostonindicators.org)

[www.bostonindicators.org](http://www.bostonindicators.org)

# Black or African American\* Population, Metro Boston's Inner Core, 2000

\*Non-Hispanic

● = 20 people



**Inner Core:** 187,629 (12.0%)

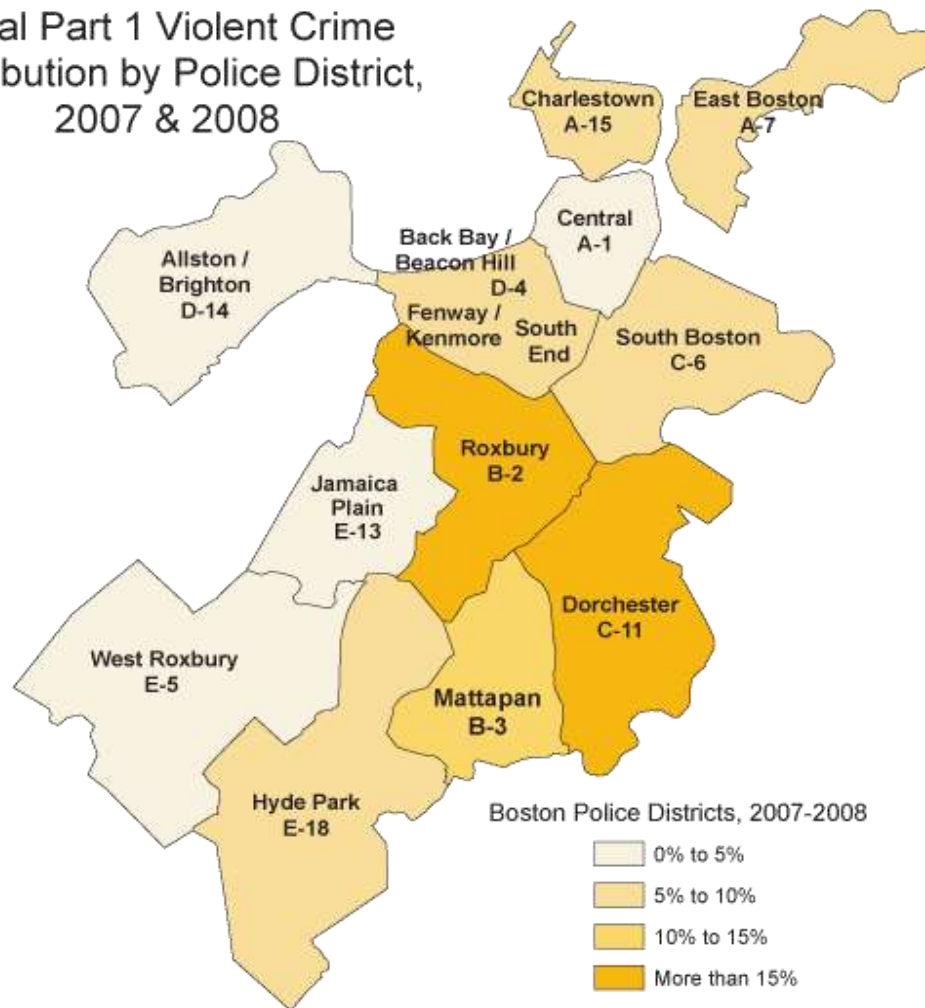
**Boston:** 140,305 (23.8%)

Data Source: Massachusetts  
Geographic Information System  
(MassGIS), US Census  
Bureau Map: Metropolitan  
Area Planning Council



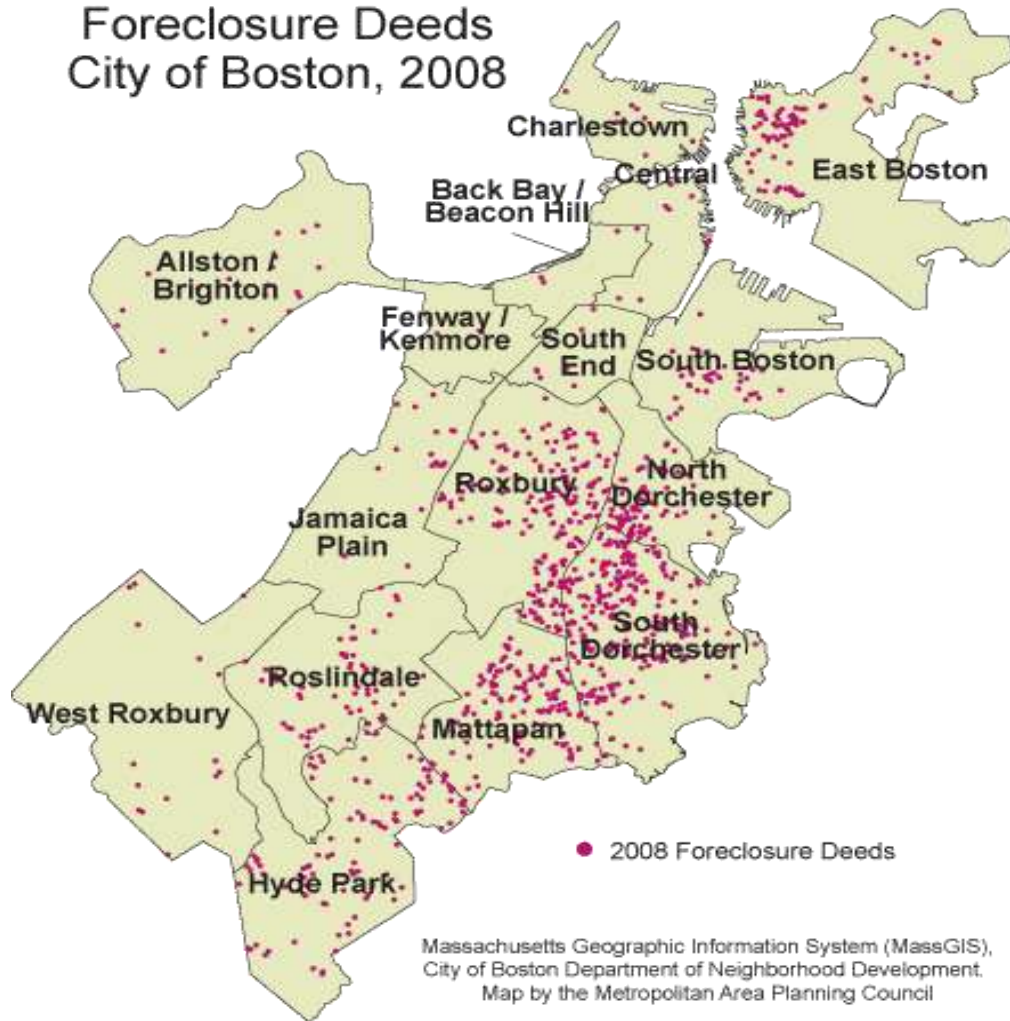


## Total Part 1 Violent Crime Distribution by Police District, 2007 & 2008



Data Source: MassGIS, City of Boston and the Boston Police Department;  
Map by the Metropolitan Area Planning Council

# Foreclosure Deeds City of Boston, 2008



# **RAPID CHANGE: Cities reflect and drive cascading global forces:**



**Population  
Growth**

**Technological  
Innovation**

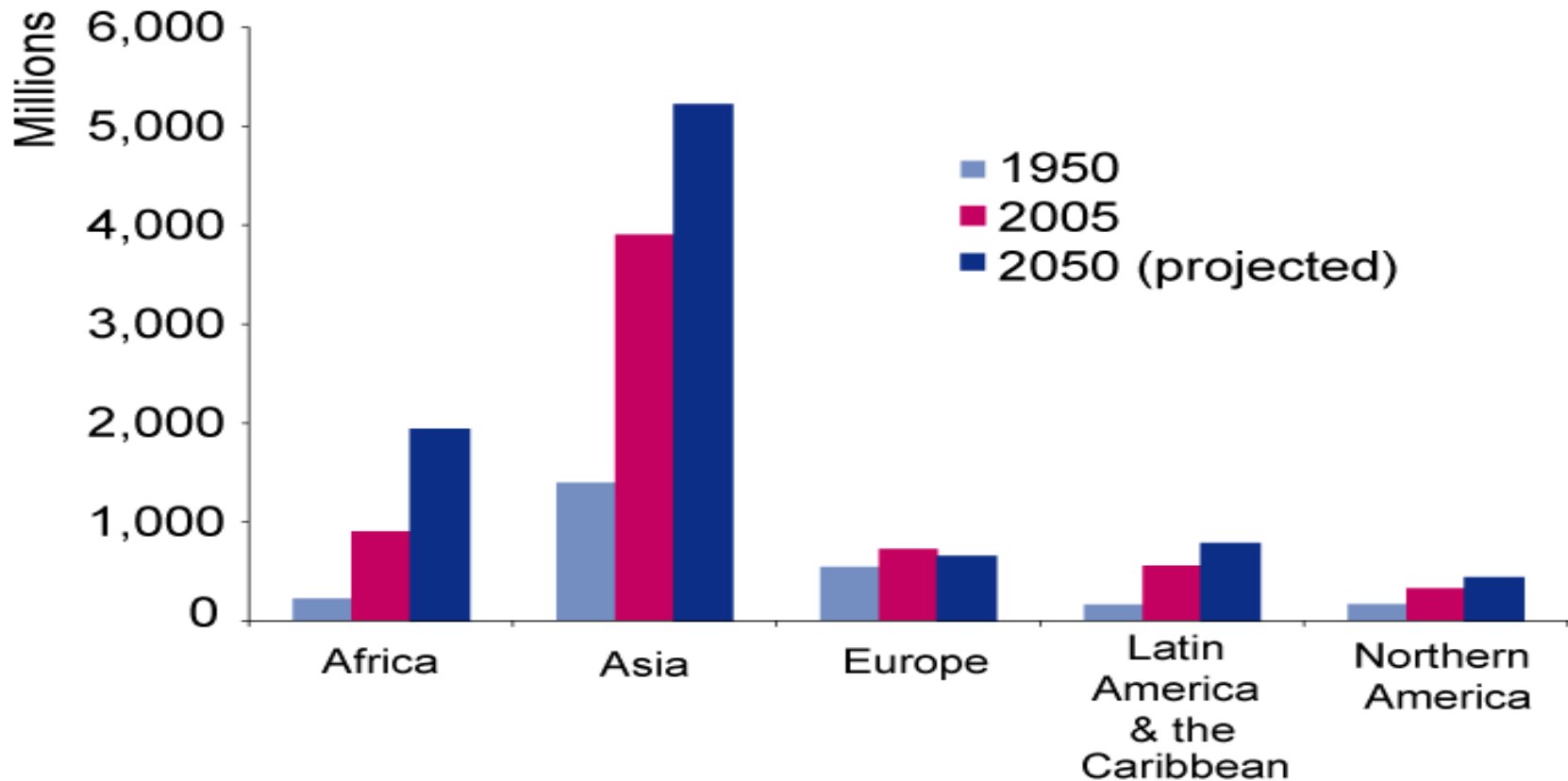
**Economic  
Globalization**

**Energy Demand**

**Climate Change**

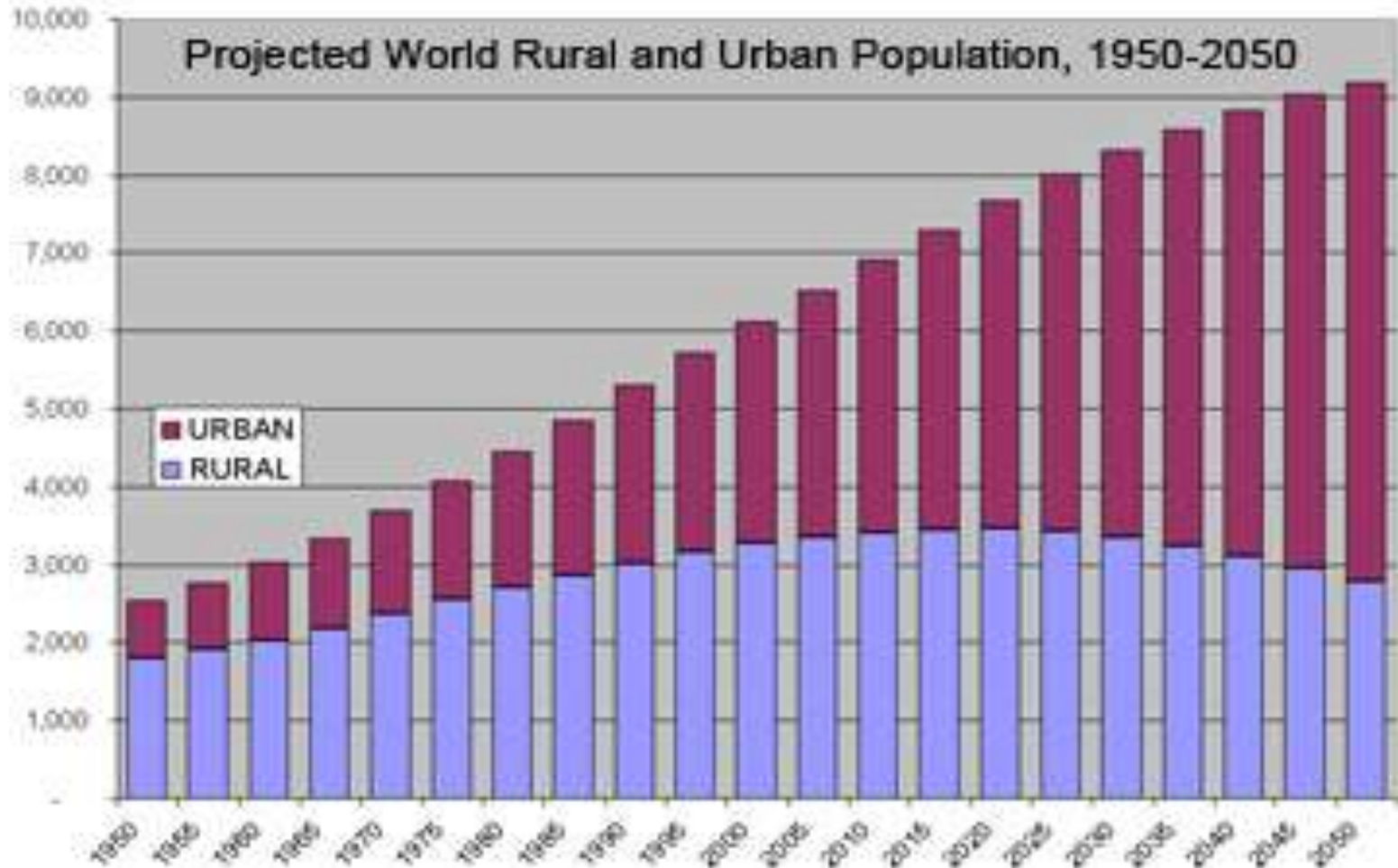
# RAPID CHANGE: Pop. growth 1950, 2005, 2050 (projected) by continent

## World Population 1950-2050



Source: US Census Bureau International Data Base

# **RAPID CHANGE:** Massive global population growth & a shift from rural to urban from 1950 - 2010, projected to 2050



We need new tools of analysis and visualization  
to transcend false dichotomies & to track  
common progress & fine-grained disparities

- **Local/Global**
- **Urban/Rural**
- **East/ West & North/South**
- **Economic/Environmental**
- **Objective/Subjective**

# The Open Indicators Consortium

*Open Source*

**Local**

**Regional**

**National**

**Global**

**Data Visualization Tools**

**developed at the University of Massachusetts–Lowell  
in partnership with teams from 7 regions**



# Founding Open Indicators Consortium Members:

**1.Metro Boston/Boston**

**2.Metro Atlanta/Atlanta**

**3.Metro Chicago/Chicago**

**4.Metro Central Ohio/Columbus**

**5.Arizona (state)**

**6.Connecticut (state)**

**7.Rhode Island (state)**

**- with, increasingly, national & global partners**

# **Vision & Values:**

## **Open Source, Open Access**

- **Functionality and visualization developed in response to diverse stakeholders' needs and preferences to create a “universal” platform**
- **NGOs and governments have free access to state-of-the-art on-line tools to create their own websites, with their own & shared data for analysis and visualization**
- **Continuous improvement through *open source* innovation and collaboration globally**

# **GOAL:** A Shared Frame of Reference

- Micro-to-macro analysis & comparisons
- Visualization, in many forms, of complex patterns
- Tools for on-line live collaboration
- Ongoing open source innovation worldwide

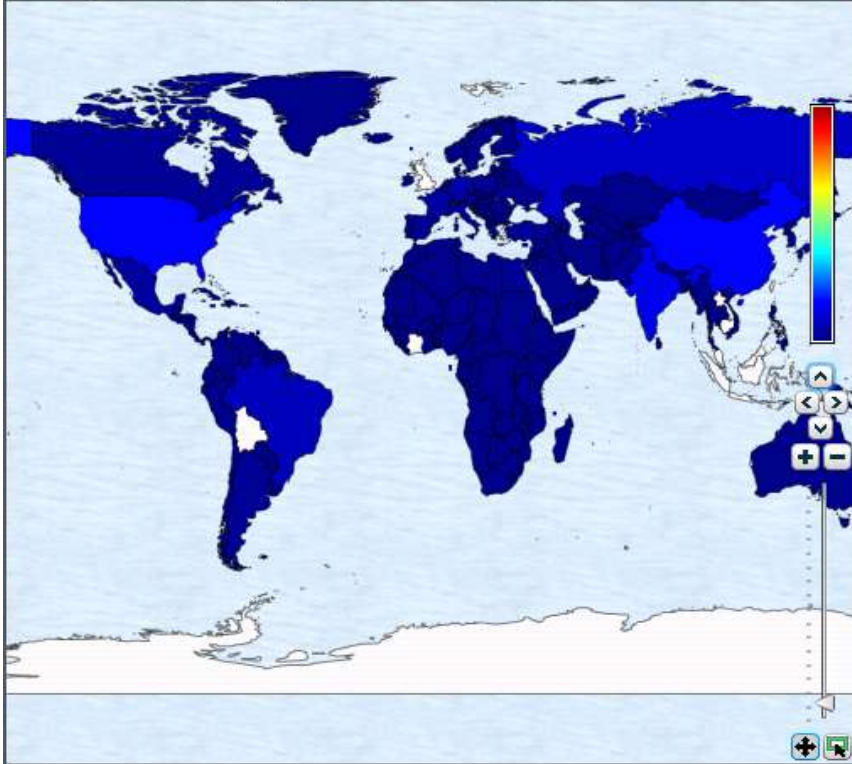
# GOAL: 3 Technical Levels - Beginner, Intermediate, Advanced

The *Advanced* level for researchers has been developed first

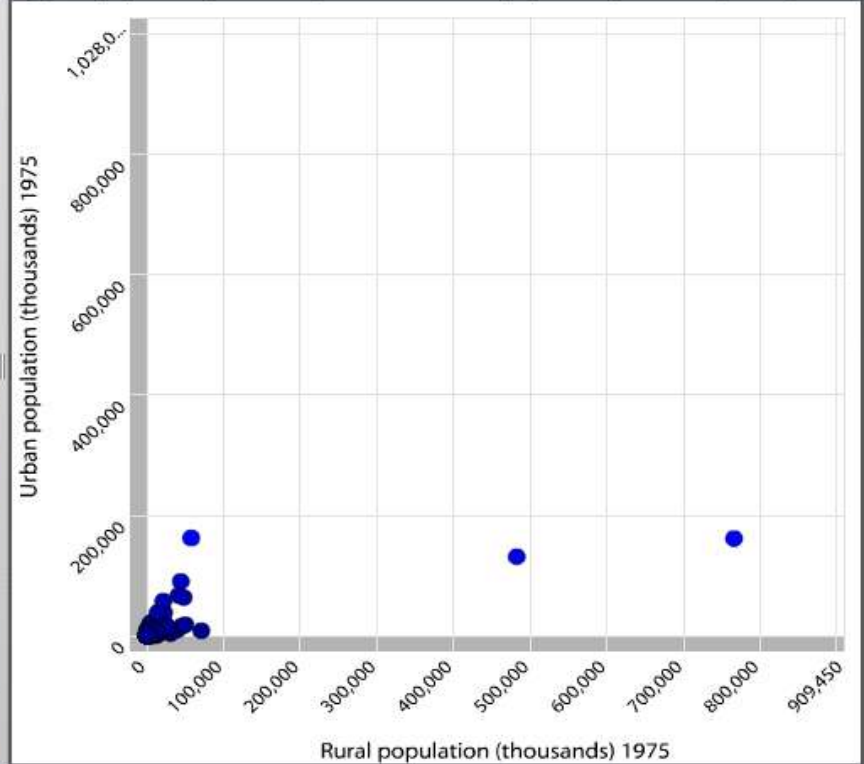
The *Beginner* and *Intermediate* levels to follow...

...with training materials to encourage experimentation and capacity building

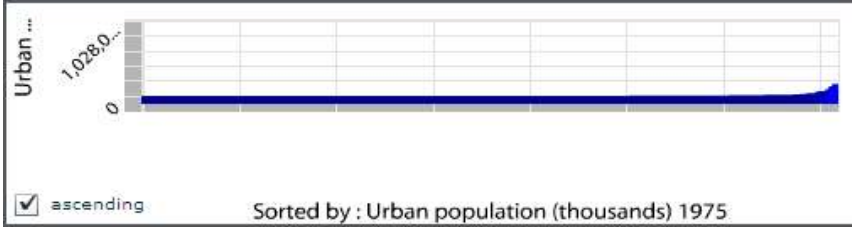
World [colored by: Urban population (thousands) 1975]



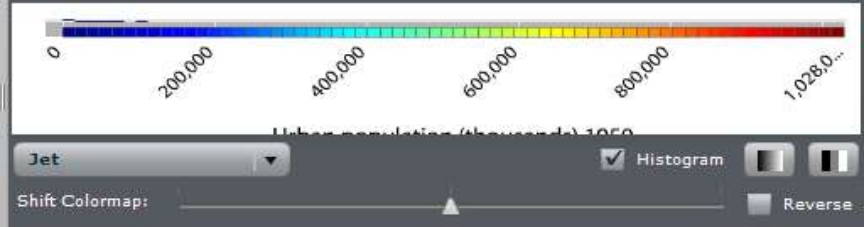
[Rural population (thousands) 1975 - vs - Urban population (thousands) 1975]



Bar Chart [height by: Urban population (thousands) 1975, sorted by: Urban populati



Colormap and Histogram [showing: Urban population (thousands) 1975]

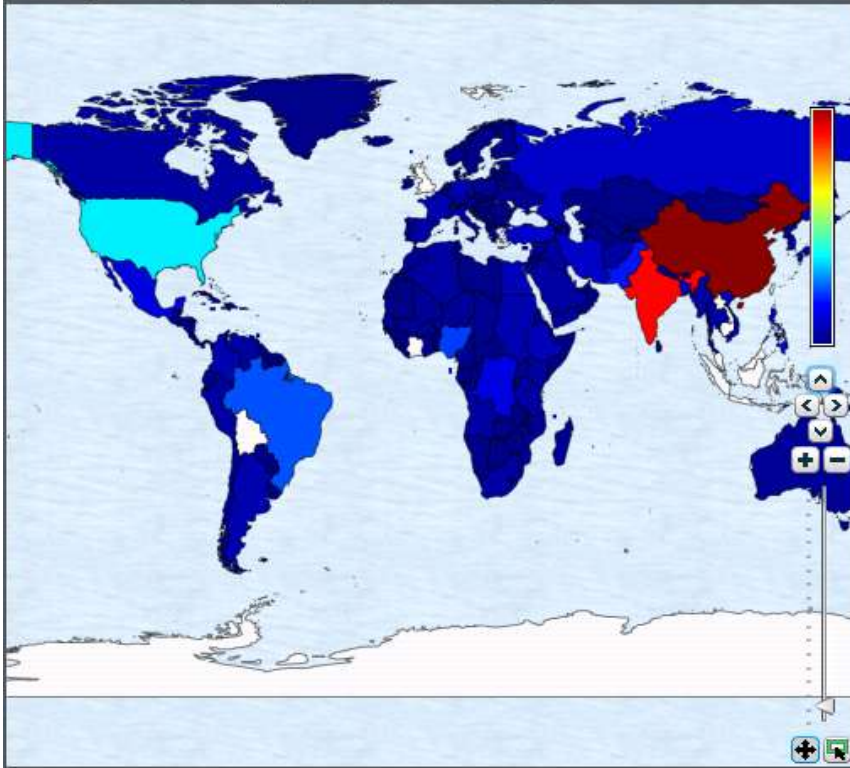


Done

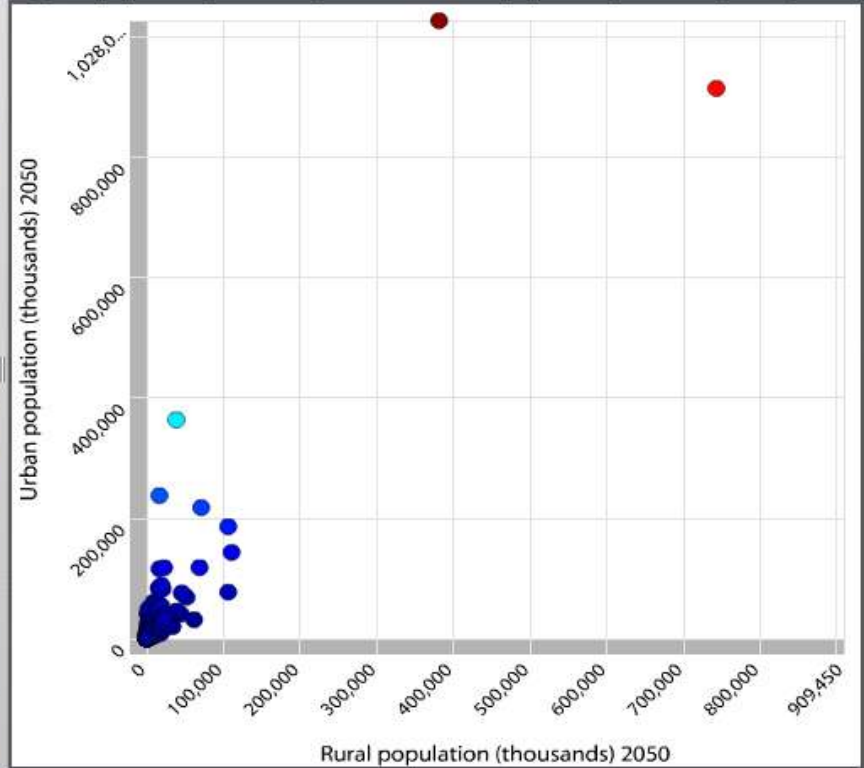
Local intranet

100%

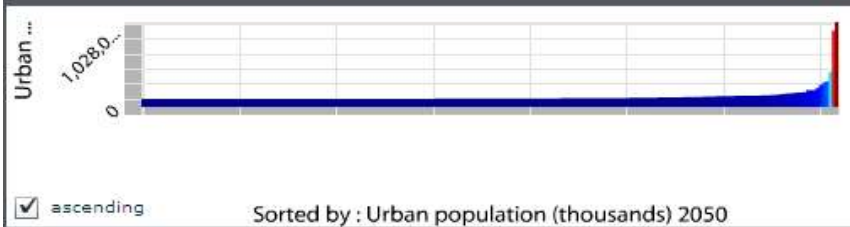
World [colored by: Urban population (thousands) 2050]



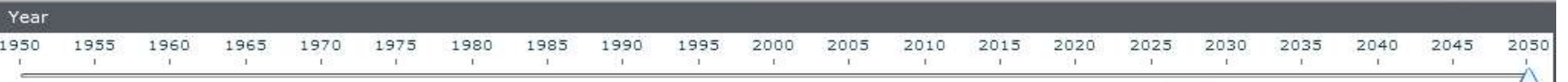
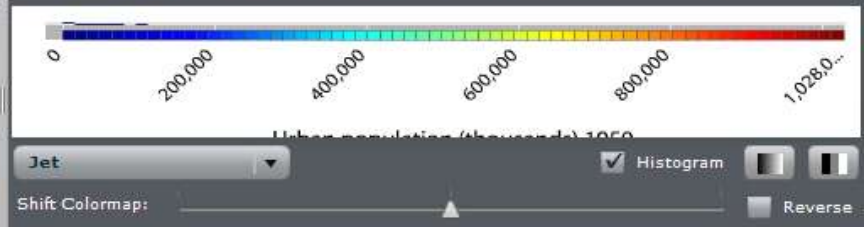
[Rural population (thousands) 2050 - vs - Urban population (thousands) 2050]



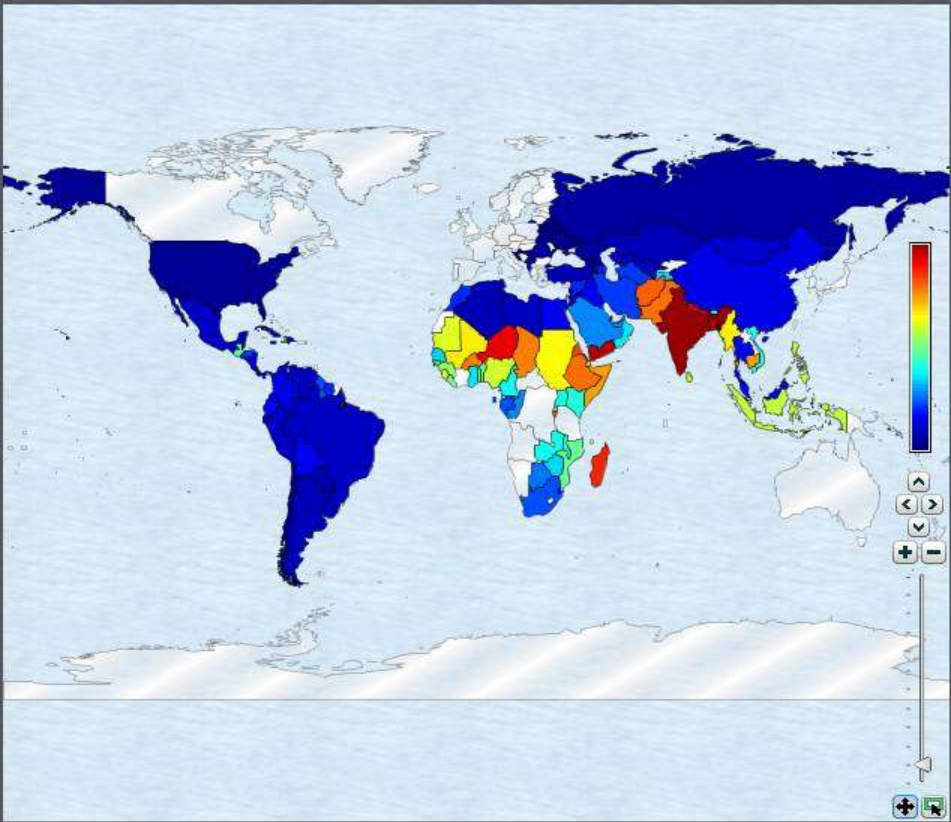
Bar Chart [height by: Urban population (thousands) 2050, sorted by: Urban populati



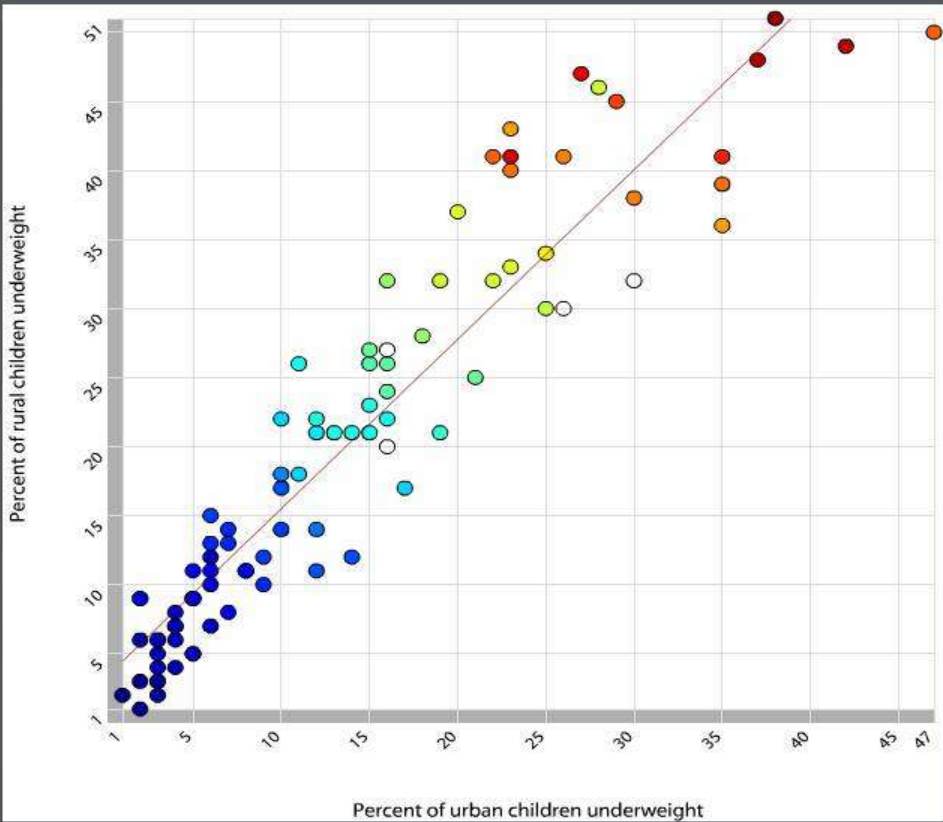
Colormap and Histogram [showing: Urban population (thousands) 2050]



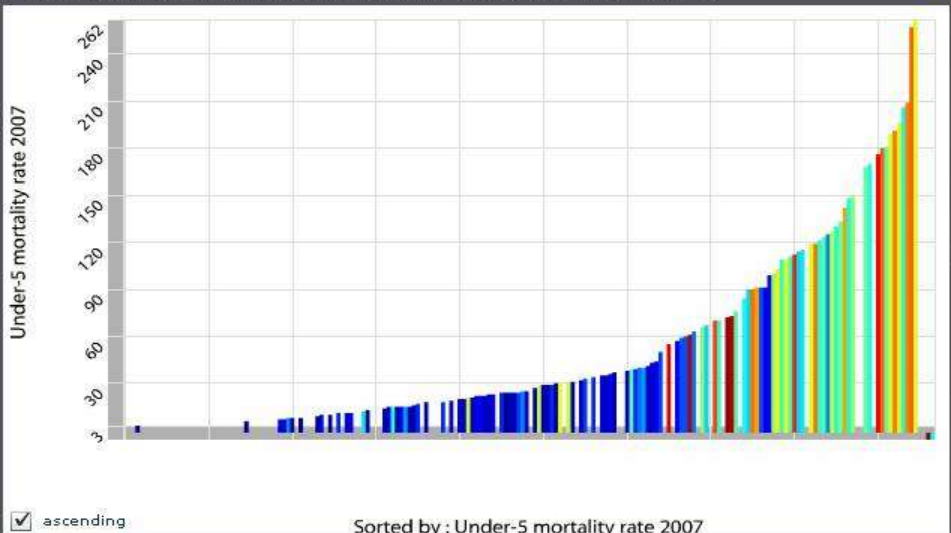
Map [colored by: Percent moderate and severe underweight NCHSWHOCD]C]



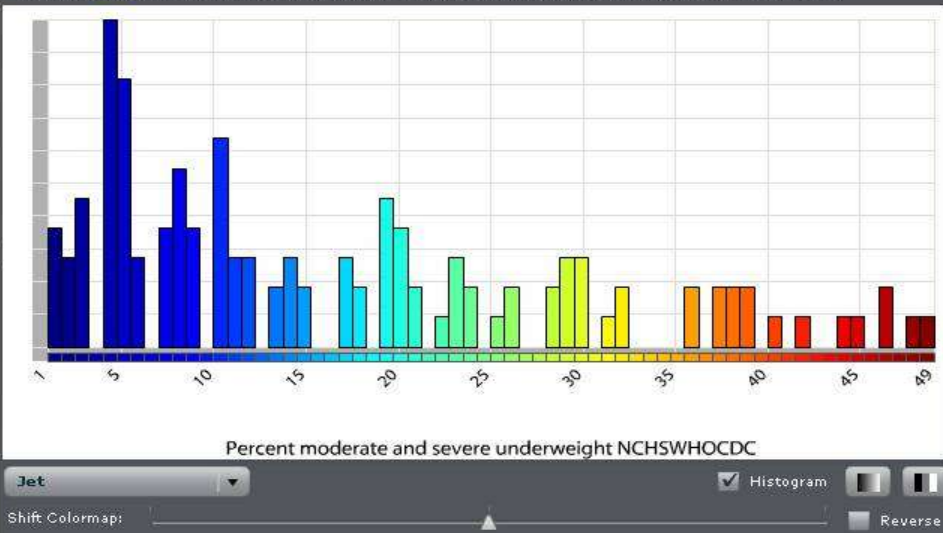
[Percent of urban children underweight - vs - Percent of rural children underweight]



[height by: Under-5 mortality rate 2007, sorted by: Under-5 mortality rate 2007]



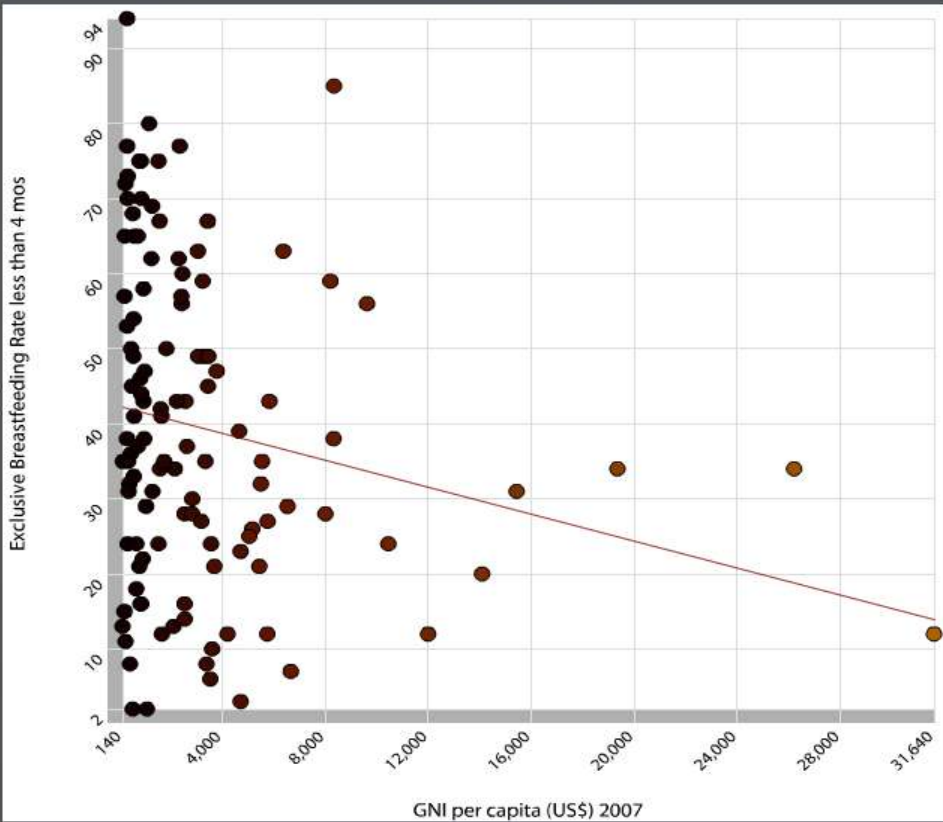
Colormap and Histogram [showing: Percent moderate and severe underweight NCHSWHOCD]C]



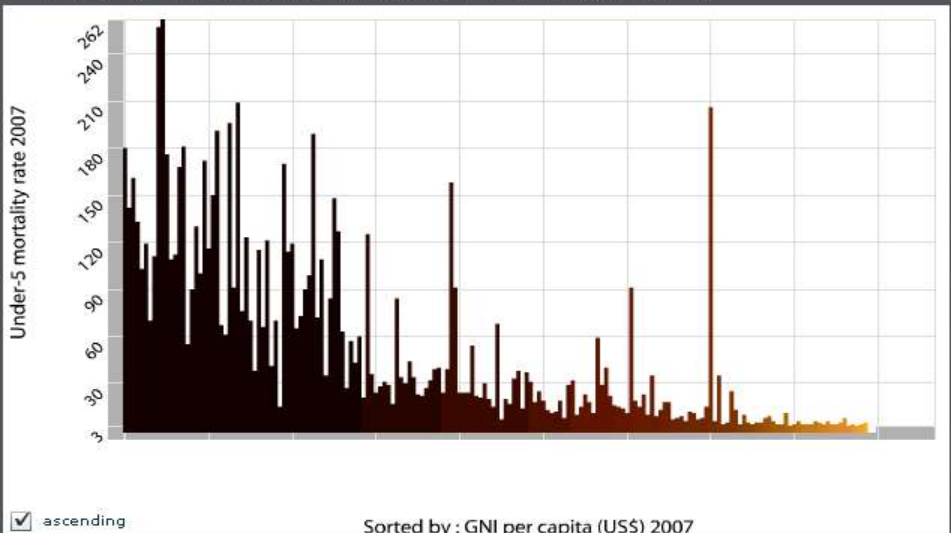
Map [colored by: GNI per capita (US\$) 2007]



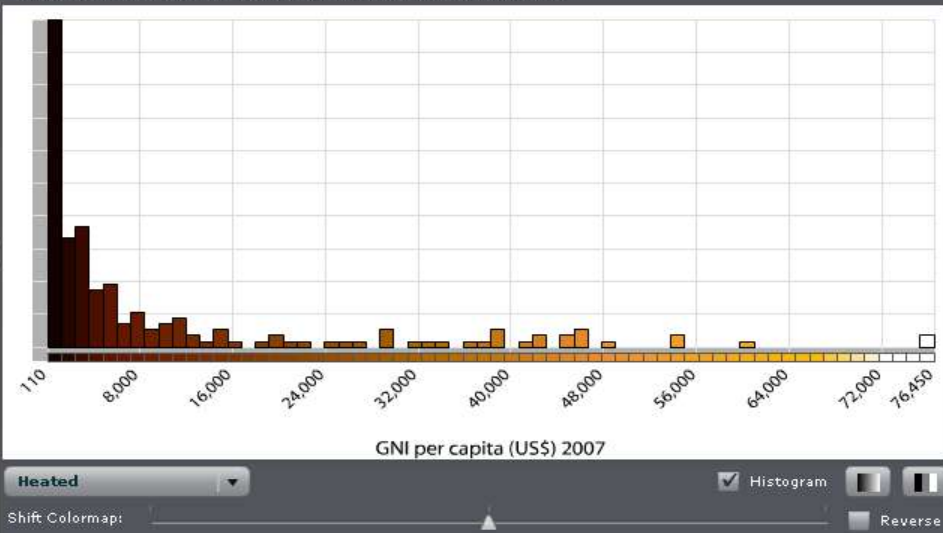
[GNI per capita (US\$) 2007 - vs - Exclusive Breastfeeding Rate less than 4 mos]



[height by: Under-5 mortality rate 2007, sorted by: Under-5 mortality rate 2007]

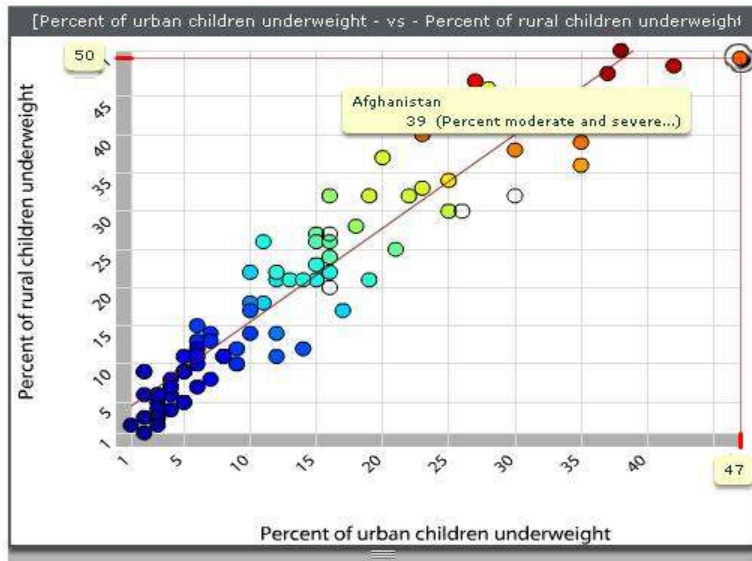


Colormap and Histogram [showing: GNI per capita (US\$) 2007]





# Childinfo - Monitoring the Situation of Children and Women



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## Welcome to Childinfo!

UNICEF is committed to changing the world for children. It strives to protect their rights, improve their health, and nurture their development through sound planning and monitoring of policy results.

UNICEF plays a central role in monitoring the situation of children and women - by assisting countries in collecting and analyzing data, helping to develop methodologies and indicators, maintaining global databases, disseminating and publishing data. UNICEF is also the lead agency responsible for the global monitoring of the child-related Millennium Development Goals (MDGs).

This website contains UNICEF's statistical information, including data used in UNICEF's flagship publications, *The State of the World's Children* and *Progress for Children*. Also here are technical resources for conducting UNICEF-supported Multiple Indicator Cluster Surveys (MICS), which are a major source of global development data.

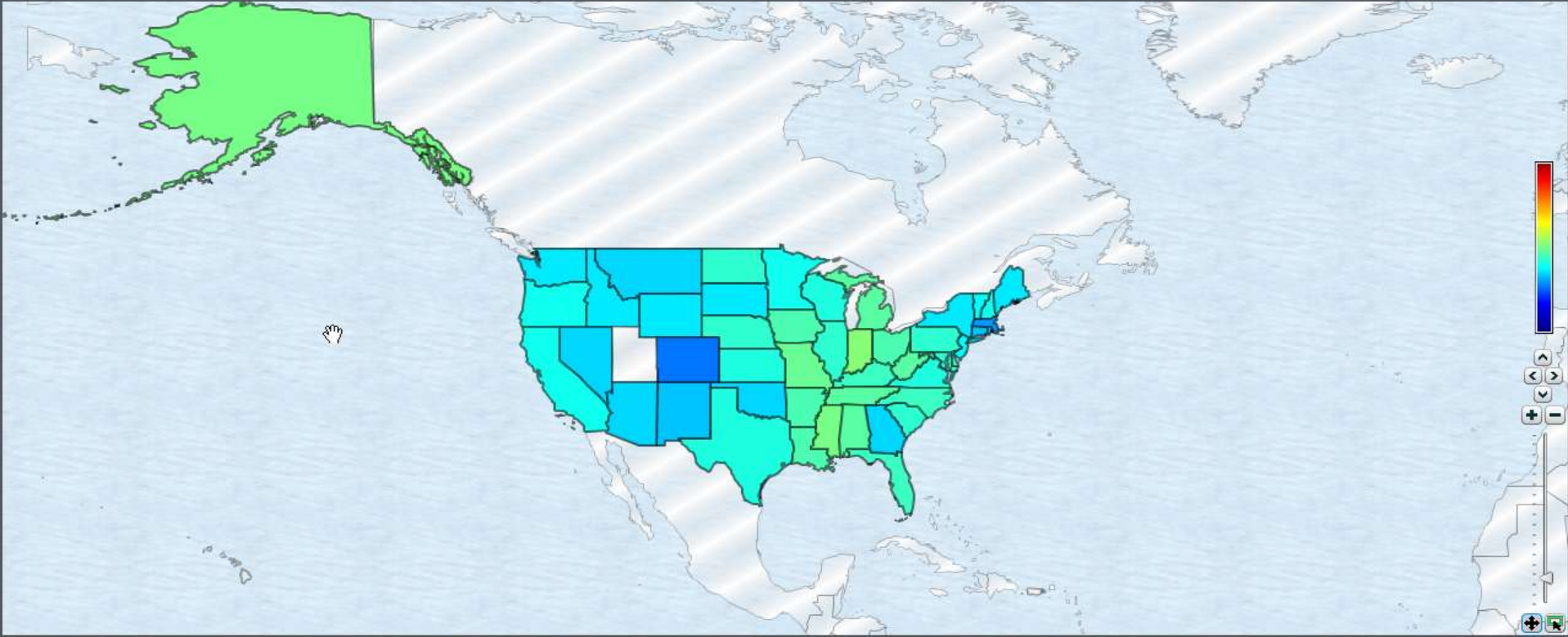
Access by Indicators.....

- Statistics by Area**
- [Child Survival and Health](#)
  - [Child Nutrition](#)
  - [Maternal Health](#)
  - [Newborn Care](#)
  - [Water and Sanitation](#)
  - [Education](#)
  - [Child Protection](#)
  - [HIV/AIDS](#)
  - [Millennium Development Goals](#)
  - [A World Fit for Children](#)
  - [Countdown to 2015](#)
  - [Statistical Profiles: Asia/Africa](#)

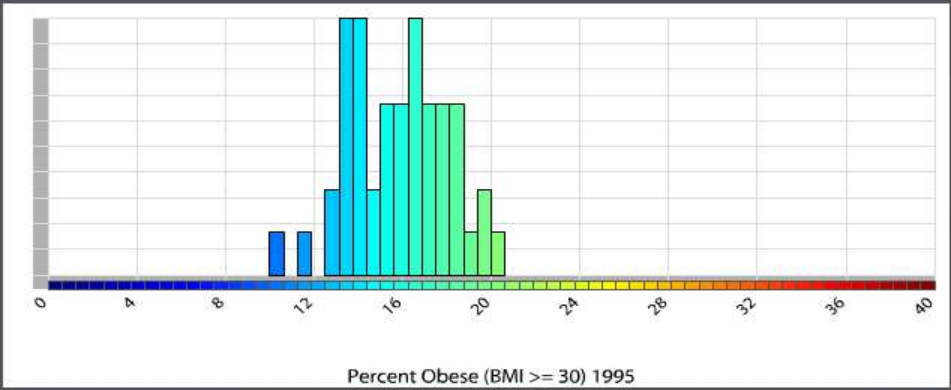
- Multiple Indicator Cluster Surveys (MICS)**
- UNICEF supports countries to collect data on the situation of children and women through the [MICS programme](#)
- LATEST:** [MICS brochure](#)
- [MICS4 questionnaire and indicator list](#)
- [MICS4](#)
  - [MICS3](#)
  - [MICS2](#)
  - [MICS1](#)
- [Click here](#) to access the available MICS reports and datasets.

Year 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Map [colored by: Percent Obese (BMI >= 30)]

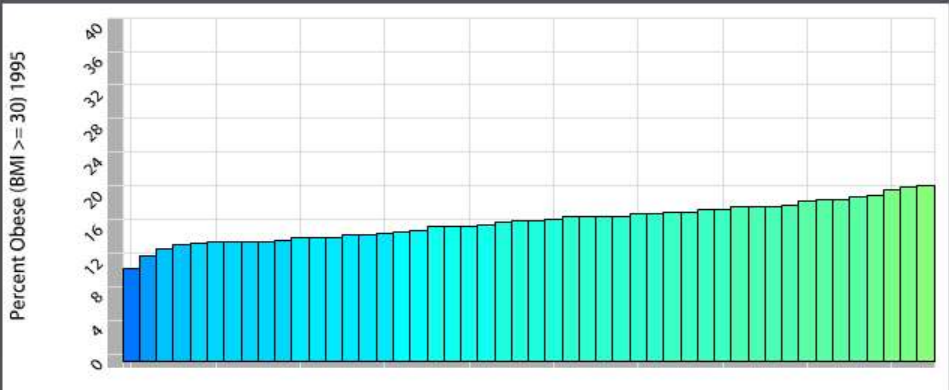


Colormap and Histogram [showing: Percent Obese (BMI >= 30)]



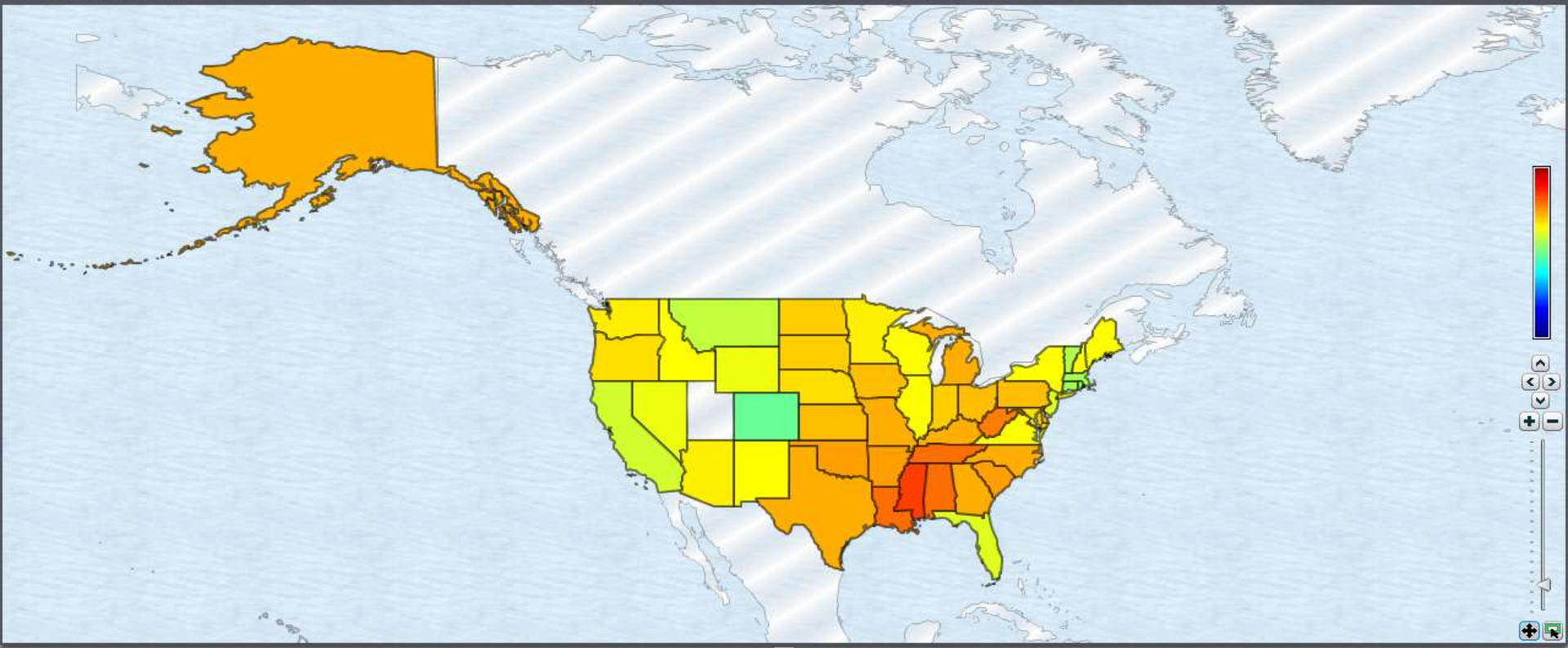
Jet Histogram Reverse

Bar Chart [height by: Percent Obese (BMI >= 30), sorted by: Percent Obese (BMI >= 30)]

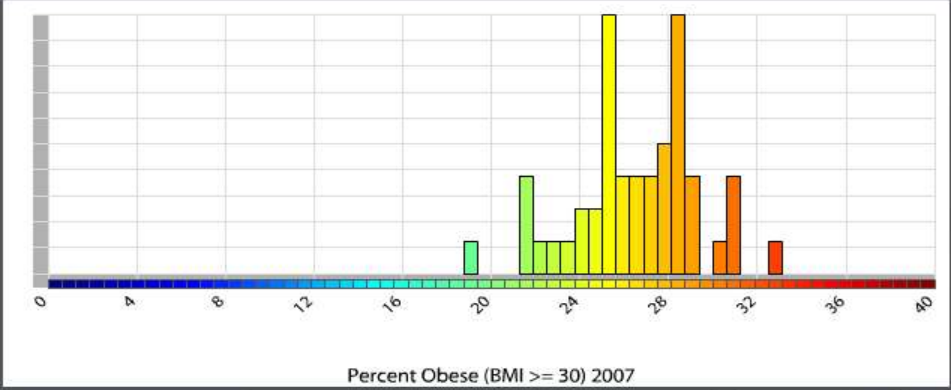


ascending Sorted by: Percent Obese (BMI >= 30) 1995

Map [colored by: Percent Obese (BMI >= 30)]

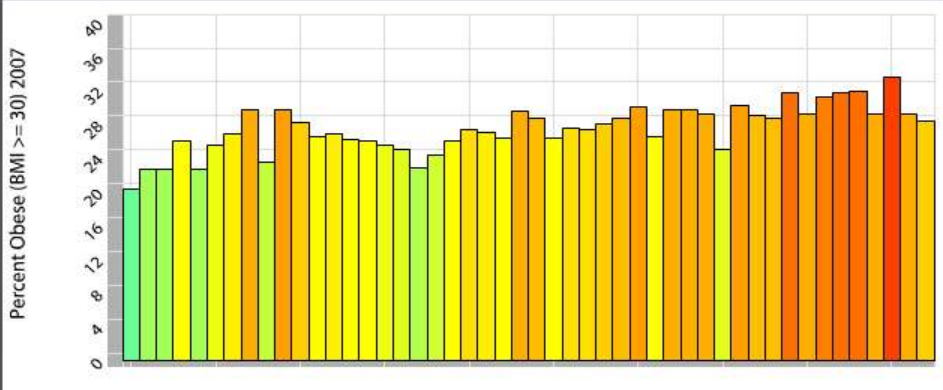


Colormap and Histogram [showing: Percent Obese (BMI >= 30)]

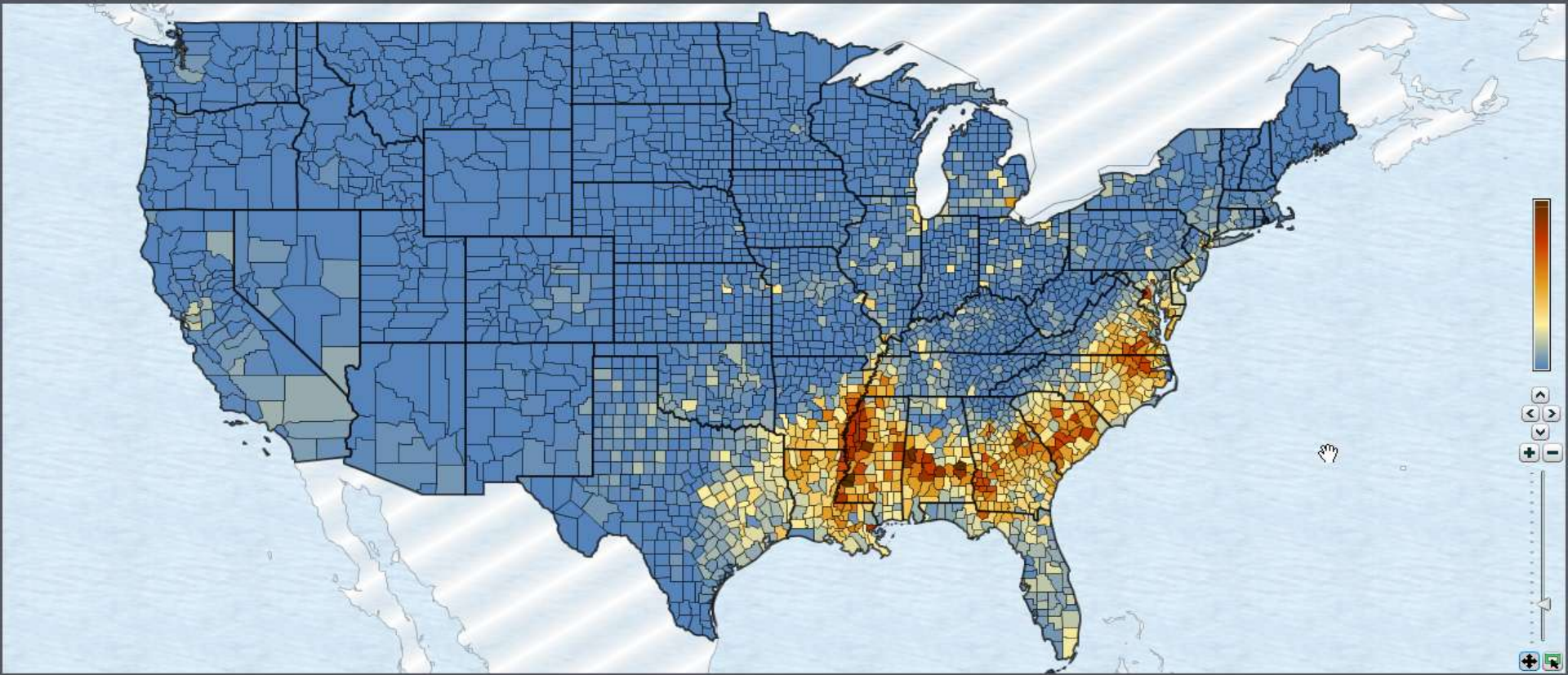


Jet  Histogram  Reverse

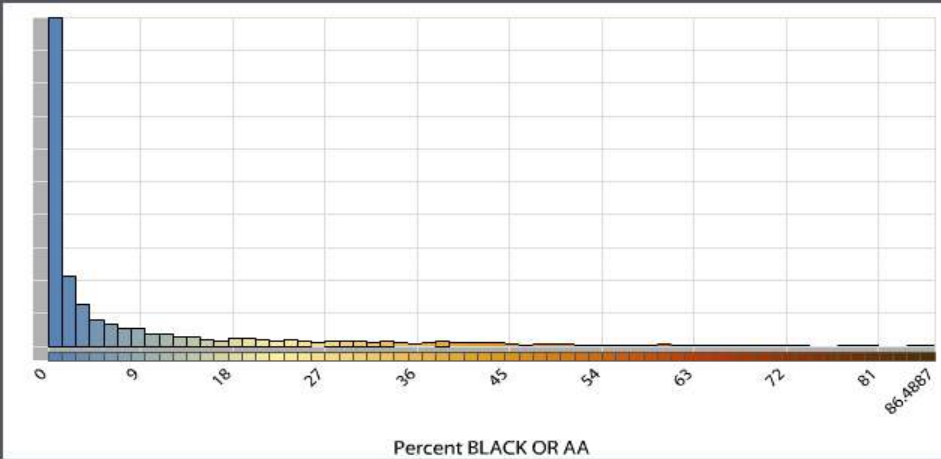
Bar Chart [height by: Percent Obese (BMI >= 30), sorted by: Percent Obese (BMI >= 30)]



ascending Sorted by: Percent Obese (BMI >= 30) 1995



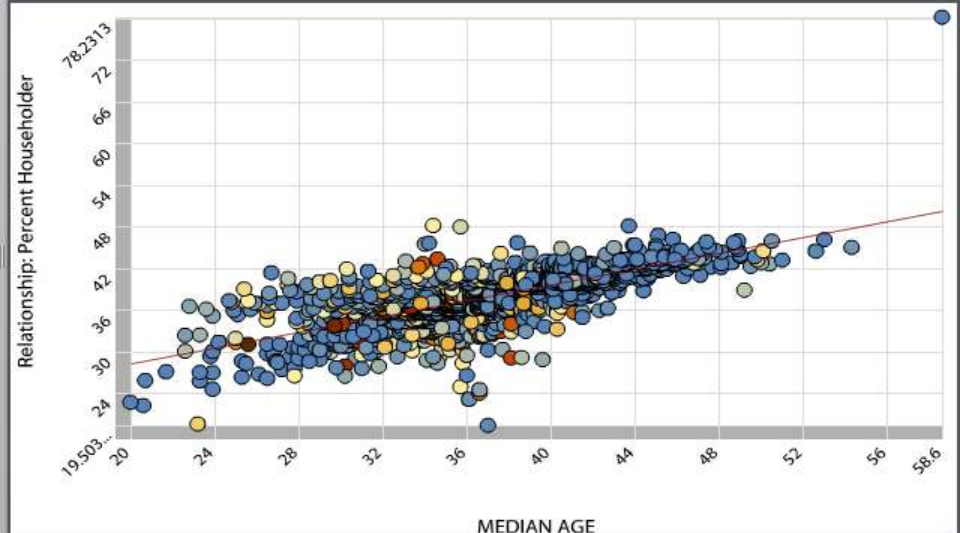
Colormap and Histogram [showing: Percent BLACK OR AA]



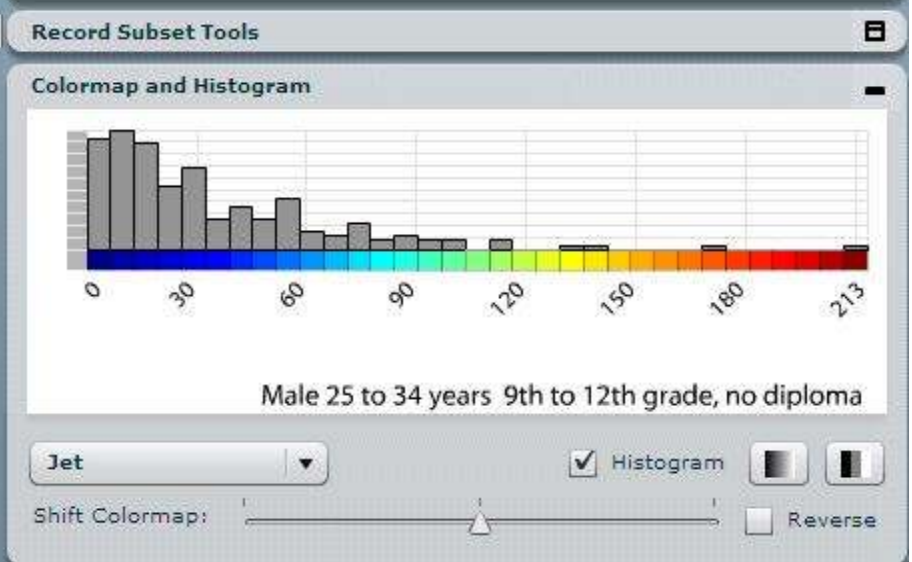
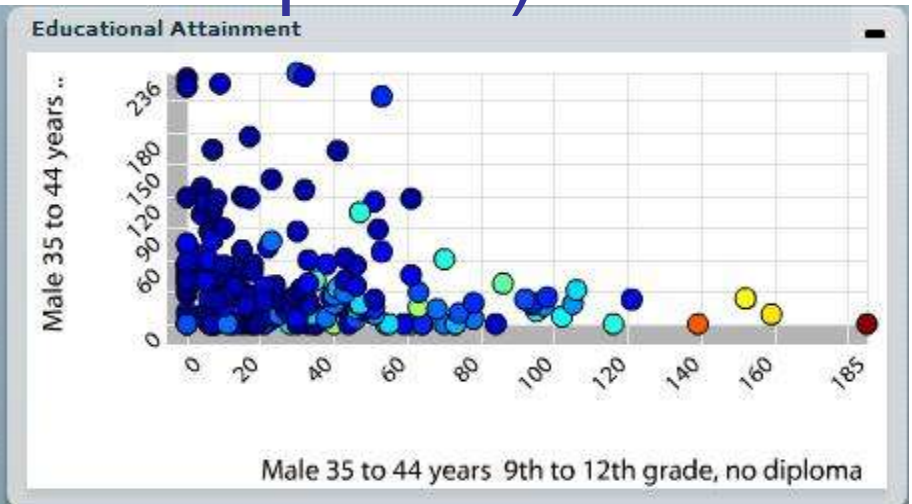
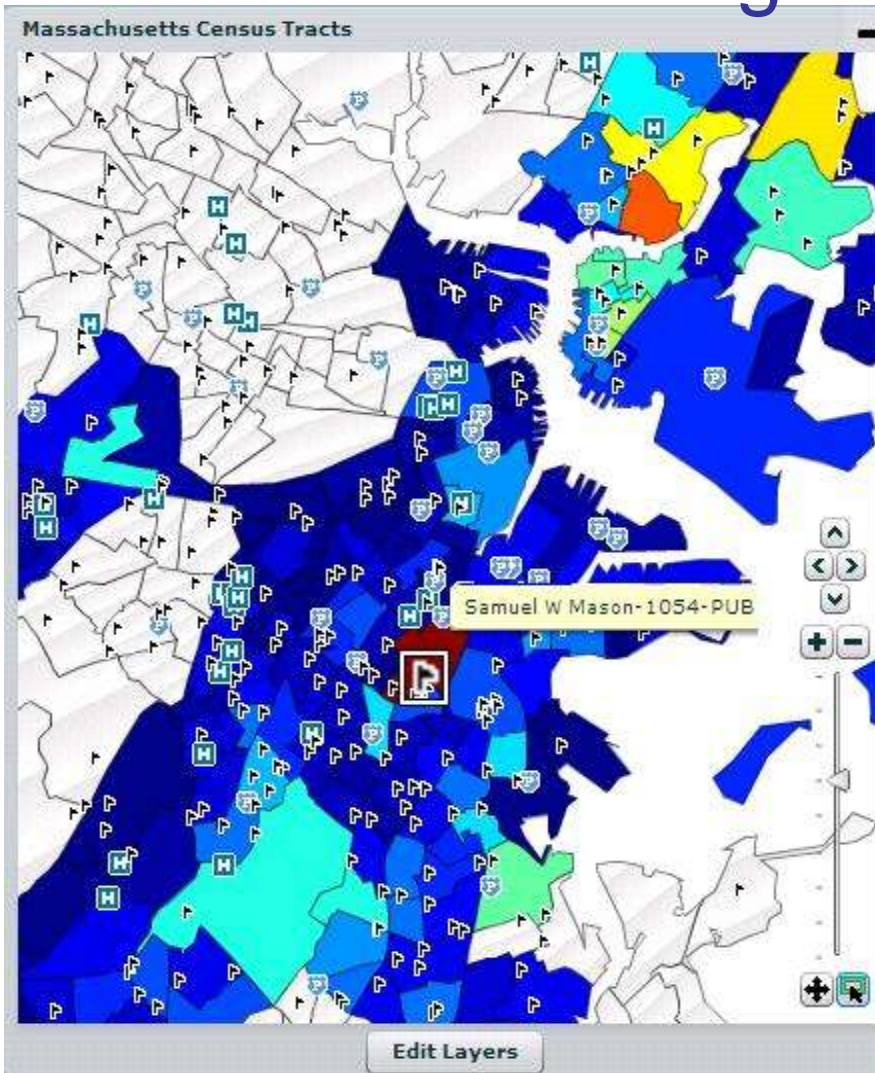
Arizona Skyline  Histogram  Reverse

Shift Colormap:

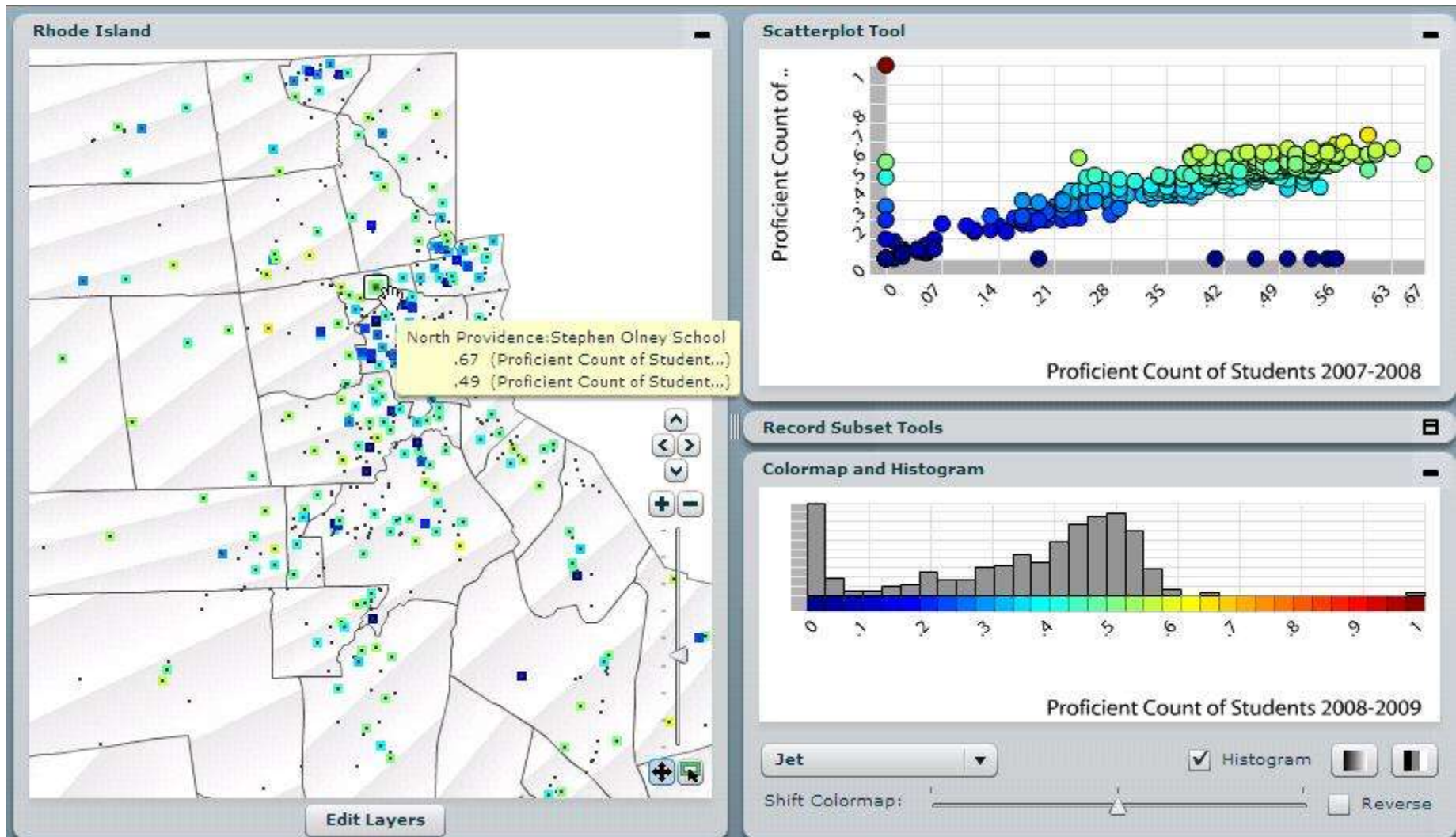
Scatterplot [MEDIAN AGE - vs - Relationship: Percent Householder]



# Point data (schools, hospitals) overlaid on demographic data (% men age 35 - 44 with no high school diploma)



# Point data : School Characteristics & Student Performance



# **BOTTOM LINE: Tools for Shared Frames of Reference & Collaboration**

**The Open Indicators Consortium  
(OIC):  
shared open source tools**

**The Community Indicators Consortium  
(CIC):  
a global community of practice**

**Thank you!**