Federal GIS Conference 2014

February 10–11, 2014 | Washington DC



## Esri Global Demographic, Business and Lifestyle Data

Catherine Spisszak

Data Product Manager

### ArcGIS includes a living atlas of the world

Maps and Layers from Esri and Thousands of Contributors



**Growing Collection of Maps and Layers** 

Elevation	Hydro
Habitats Oceans	Hazards Streets Places
Dynamic Imag Demogi Energy	
l	

... Providing a Foundation for Your Work

### **Content Powers the ArcGIS System**

Rich Set of Ready-to-Use Geographic Content Available to All Users



### **Content is Built-In to the ArcGIS Platform**

Simple to Discover and Use in all of your ArcGIS Applications

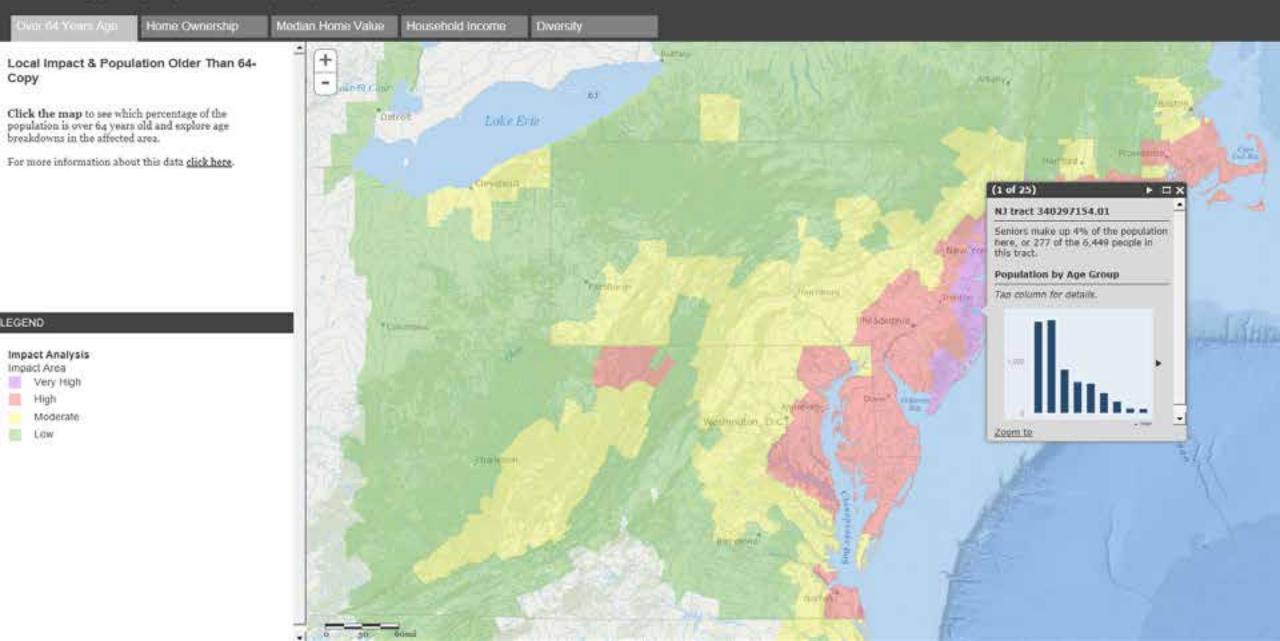


Access through your Web, Mobile, and Desktop Apps

Disaster Relief	Education	Economic	At Risk
Retail	Healthcare	Development	Populations
Insurance		Federal	
Target Marketing		Governme	nt
Real Estate	Demographi Lifestyle,	c, Healt	Housing h Utilities
Bank Restaurant	and Business	Data Automo	
Site Location	n	Finance	Planning
Merchandise Optimization	Customer S Intelligence	ite Selection	Pipelines

#### Esri Impact Map for Superstorm Sandy

A collection of dynamic maps showing impacted counties provided by FEMA with Esri demographic data. Select a demographic map using the tabs. Click any county to view demographic information.



#### Comparing unemployment and population change reveals regional patterns

Despite recent signs of recovery, unemployment remains a major national issue. How do patterns of unemployment relate to regional changes in population?

#### UNEMPLOYMENT POPULATION CHANGE

#### ON CHANGE. BLEATRONIDS

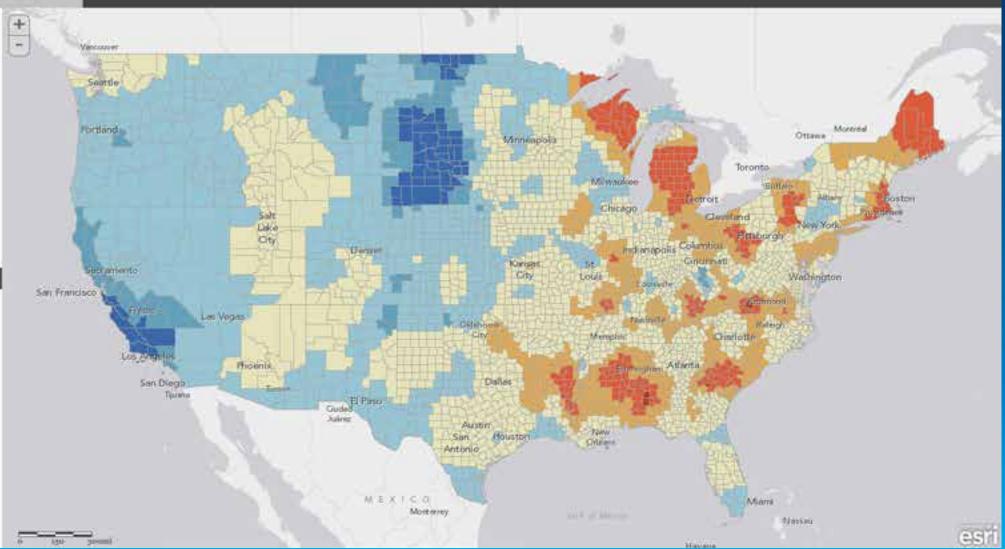
#### Relationship of unemployment to population change

The analysis shows that in some parts of the country, population and unemployment tend to parallel each other (http://

- The Great Plaine: Declining population and low intemployment.
- Coastal California: Increasing populations and high unemployment.
- ...while in others, they tend to run in opposition (red).
  - Deep South, Rust Belt, and Upper Midwest: Static or decreasing populations and high unemployment

#### LEGEND





A story map

a esri

#### Access to basic health care is inadequate in many parts of the U.S.

-

These county maps present two ways of examining a fundamental public health challenge. To the left of the slider bar: a look at doctor's offices relative to population. To the right: primary health providers.

Viricolore

Secttle

Fordand



esri

Montrial

Ottawa

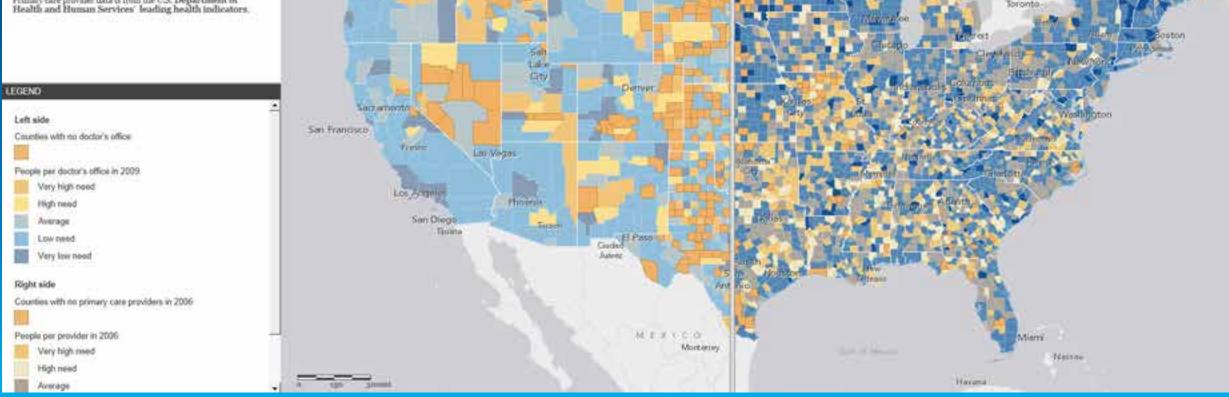
The availability of basic health care varies radically from place to place across the nation.

To the left of the vertical slider bar, counties outlined in orange had no doctor's office in 2009, according to the Census Bureau. Clark County, Mississippi, for enample, had a population of over 17,000 but no doctor's office, while Manhattan had a doctor's office for every 100 residents.

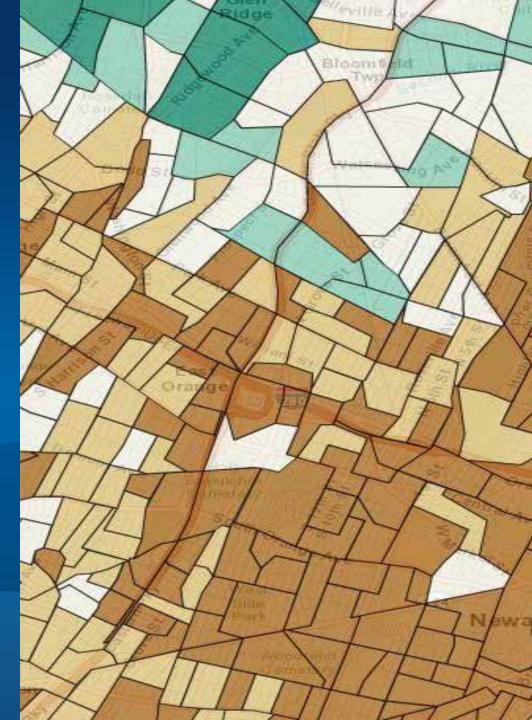
The map to the right shows the relative availability of primary health care providers by county. Enhanced access to health care is key to improving the health of Americans.

Doctor's office data is from the U.S. Census Bureau's County Business Patterns and Population Estimates programs

Primary care provider data is from the U.S. Department of Health and Human Services' leading health indicators.



# Data





What Data does Esri offer for the United States?

## **Esri U.S. Demographics**

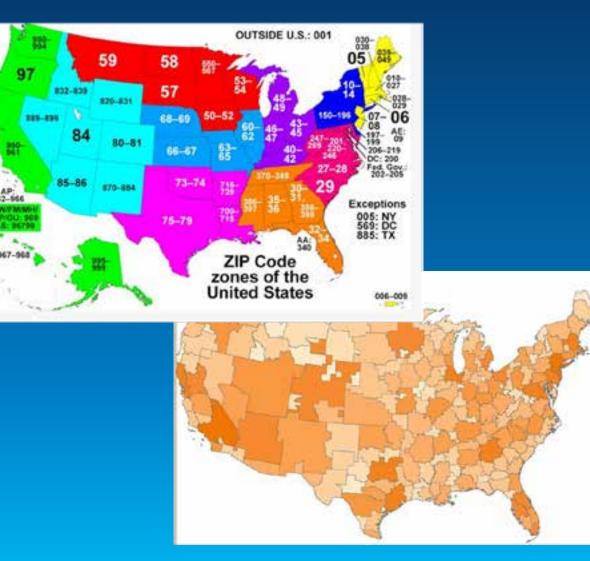
- Updated Demographics
- Tapestry Segmentation
- Census/ACS Data
- Retail MarketPlace
- Business Locations
- Business Summary
- Consumer Spending

- Market Potential Data
- Traffic Counts
- Major Shopping Centers
- Bank Branches
- Banking Potential
- Crime Indexes
- Cable Boundaries

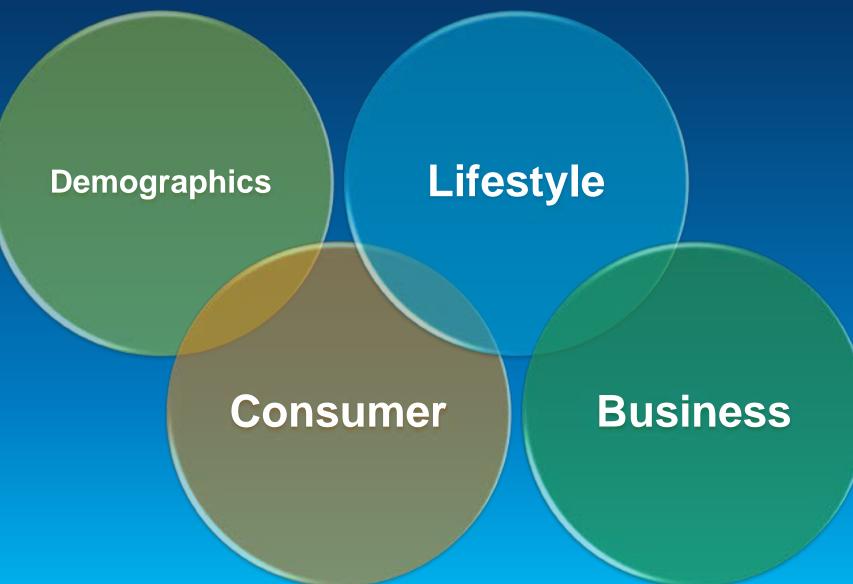


## Esri U.S. Data Geographic Levels

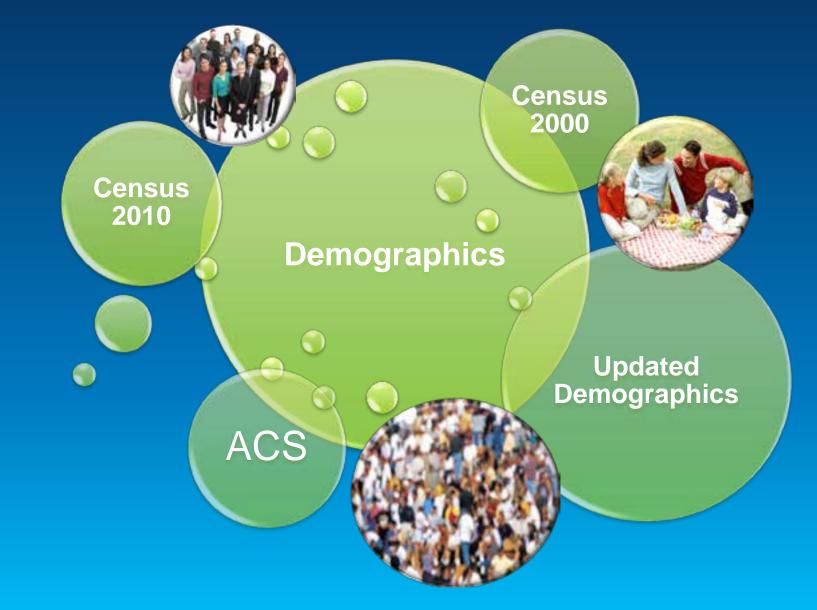
- Census Geography
  - Block Group
  - Tract
  - County
  - State
  - US
- Census Correspondence
  - CBSA
  - DMA
  - Place
  - County Subdivisions
- Postal Geography
  - ZIP code
- Congressional Districts







#### Esri U.S. Demographic Data



## Esri U.S. Demographic Data

Updated Demographics
Population and Housing
Age by Sex
Race and Hispanic Origin
Education
Marital Status
Age by Sex by Race
Labor Force
Income
Home Value
Disposable Income
Net Worth

Census 2010
Population
Age by Sex
Race and Hispanic Origin
Household Size
Households by Type
Tenure

ACS	
Language Spoken at Home	
Journey to Work	
Poverty	Neuroith
Military Service	New with 2008-2012
Mortgage Status	ACS
Rent	Households Receiving
Vehicles Available	Food Stamps/SNAP
Units in Structure	Households with 1+ Persons with a Disability
Year Structure Built	Population by Types of Health Insurance Coverage by Age

#### **Esri's Reliability Symbol**

- You do not need to interpret the Margin of Error.
- Esri will do it for you.

🏟 esri <sup>.</sup>	ACS Population Sum	nmary		
	Humboldt County, CA Humboldt County, CA (06023) Geography: County			
		2005 - 2009 ACS Estimate	MOE(±)	Reliability
POPULATION AGE 5+ YE	ARS BY LANGUAGE SPOKEN AT HOME		/	
AND ABILITY TO SPEAK	ENGLISH		41	
Total		121,393		Later 1
5 to 17 years				
Speak only English		16,914	346	
Speak Spanish		1,400	254	
Speak English "very		1,309		/
Speak English "not		83	278	
Speak English "not		8	64	
Speak other Indo-Euro		207	0.2%	
Speak English "very		184	0.2% 12	
Speak English "not		23	0.0%	
Speak English "not		0	0.0%	132
Speak Asian and Pacif		240	0.2%	111
Speak English "very		228	0.2%	110
Speak English "not		12	0.0%	19
Speak English "not		0	0.0%	132
Speak other language		126	0.1%	95
Speak English "very		109	0.1%	90
Speak English "not		17	0.0%	28
Speak English "not	at all"	0	0.0%	132
18 to 64 years				
Speak only English		79.751	64.9%	A 683

#### **Esri's Reliability Symbol**



## Esri U.S. Data is Accurate

**Data Accuracy Study** 

### The Results are In...Esri Ranked #1!

Geography	Vendor 1	Esri	Vendor 3	Vendor 4	Vendor 5
Total US	315.9	247.7	276.7	295.7	304.7
State	21.4	12.6	17.9	19.3	29.7
County	49.2	39.8	52.1	46.5	55.7
Census Tract	106.6	89.5	93.3	106	99.6
Block Group	138.7	105.8	113.4	123.9	119.7

Precision scores for each data vendor by geography. The lowest score indicates the highest accuracy.

www.esri.com/accuracy

## Esri U.S. Consumer Data



## Esri U.S. Consumer Data

		Spending Potential	Average Amount	
		Index	Spent	Total
Consumer	Apparel and Services	138	\$3,203.41	\$11,399,276
Spending	Men's	132	\$585.27	\$2,082,677
	Women's	126	\$1,015.94	\$3,615,192

	Product/Consumer Behavior	Expected Number Adults/HHs	Percent of Adults/HHs	MPI
Market	Apparel (Adults)			570.0
Potential	Bought any men's apparel in last 12 months	3,749	50.6%	102
	Bought any women's apparel in last 12 months	3,700	50.0%	110

Retail MarketPlace	Industry Group	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Market lace	Clothing & Clothing Accessories Stores	448	\$8,798,820	\$1,407,558	\$7,391,262	72.4	5

#### Esri U.S. Lifestyle Data



### What Value Does Tapestry Add?

Demographics	Demographics			Area B	
Median Household Income		\$67,295		\$69,779	
Median Age		48.9 Years		32.4 Years	
% Homeowners		85%		45%	
Add Segmentation	Area A		Are	a B	
Car	Own or Lease a	a Honda	Own or Lease a Lexus		
Media	Read Newspap	Read Newspapers		Read News Online	
Recreation	Attend Golf Tou	Attend Golf Tournaments		Likely to join a gym	
Banking	Own a US Savings Bond		Bank Online		
Television	Watch the History Channel		Watch MTV		
Urban/Rural	Rural		Urban		

## **Up and Coming Families**

John Smith 1201 South Main Street Fairfax, VA 22031





### Now I Can Find Them...







What Data does Esri offer for Canada?

## **Demographic Data for Canada**

- Nearly 3,000 variables available
- Data available for 2011, 2013, and 2018
- 162 different tables of data including:
  - Age
  - Marital Status
  - Education
  - Mother Tongue
  - Income
  - Occupation
  - Daytime Population
  - Expenditures
  - Housing





#### What International Data does Esri offer?

## **Global Demographic Data**

- Around 100 variables per country
  - Population and Population per Mill
  - Average Household Size
  - Total Households
  - Purchasing Power
  - Age (15-Year Age Groups)
  - Gender
  - Consumer Spending
  - Income
  - Household Type
  - Marital Status
  - Education



	US	Canada	International
Population (including age and gender)	$\checkmark$	$\checkmark$	$\checkmark$
Marital Status	$\checkmark$	$\checkmark$	
Employment	$\checkmark$	$\checkmark$	
Income/Purchasing Power	$\checkmark$	$\checkmark$	$\checkmark$
Households by Type	$\checkmark$	$\checkmark$	
Education	$\checkmark$	$\checkmark$	$\checkmark$
Race	$\checkmark$	$\checkmark$	
Housing (Owner/Renter/Vacant)	$\checkmark$	$\checkmark$	
Consumer Spending	$\checkmark$	$\checkmark$	$\checkmark$
Lifestyle			
Business Data	$\overline{\checkmark}$	$\checkmark$	(37 countries)

## One Global Content team

Working with our distributors for content

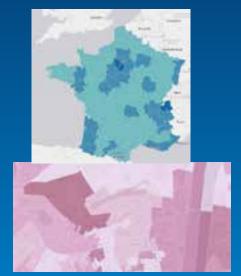
## Coverage



# Access



## **Accessible in Four Ways**







Infographics

Median<br/>AgeTapestry<br/>SegmentMedian<br/>Income32.4Laptops &<br/>Lattes\$77,018

City

Fairfax

Address

123 S Main St

#### Geographic Data Enrichment

# 

#### Reports

## **Dynamic Maps**



- Collection of Ready to use Maps
- Popups with more data
- Configurable
- "Demographics and Lifestyle" Group in ArcGIS Online

## Infographics



• New style of reporting

#### Ready to use

- Age
- Average Household Size
- Household Income
- Housing Units by occupancy
- Dominant Tapestry

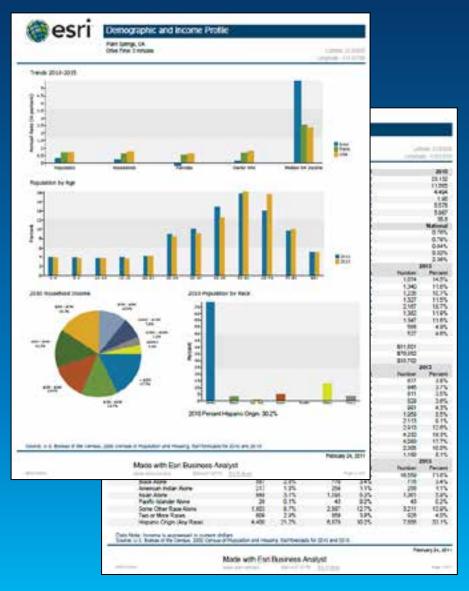
#### Dynamic and Interactive

# **Geographic Data Enrichment**



- Add new columns of information to your data
- Configurable
- Data Collections
  - Wealth Facts
  - Policy Facts
  - Health Facts
  - Business Facts
  - Media Facts
  - Poverty Facts
  - At Risk
  - More

# Reports



 Pre-formatted • PDF and XLS Demographic and **Income Profile**  Housing Profile ACS Reports Census 2010 Reports

# **U.S. Stand-alone Databases**



Client Presentation Darren Gemoets Aquilent, Inc.

## Agenda

- Who am I and why am I here?
- About NLM's TOXMAP
- Historic use of demographic data in TOXMAP
- Use of demographic data in the new TOXMAP
- Data integration
- Summary

## Who am I and why am I here?

## Federal Government contractor

- National Library of Medicine / NIH
- Intelsat
- NASA/Goddard
- Employee of Aquilent, Inc.
- Invited by Laura McNulty, Esri's Manager for Health & Sciences



www.aquilent.com





#### **Contact NLM**

## 🔁 💦 🗾 💡

## Databases

PubMed/MEDLINE

MeSH

UMLS

Clinical Trials.gov

MedlinePlus

TOXNET

Images from the History of Medicine

**Digital Collections** 

LocatorPlus

All NLM Databases & APIs



## NIH MedlinePlus Magazine Fall 2013

Read features about taste, smell, hearing, language, voice, and balance; breathing easier; living with psoriasis and more.



REPLAY C







## Search biomedical literature Find medical terminologies Search NLM collections Read about diseases Learn about drugs Explore history Find a clinical trial Use a medical dictionary Find free full-text articles

Find, Read, Learn

## Explore NLM

About NLM

Health Information

Library Catalog & Services

History of Medicine

**Online Exhibitions & Digital** Projects

### Research at NLM

Human Genome Resources Biomedical Research & Informatics Environmental Health & Toxicology Health Services Research & **Public Health** 

## NLM for You

Grants & Funding Meaningful Use Tools Training & Outreach Network of Medical Libraries **Regional Activities** Careers @ NLM

## News & Events

- Michael E. DeBakey Award Nominations due February 21, 2014 (01/14/14)
- NLM Releases Digitized Collection of Its Publications and Productions (12/18/13)
- NLM Announces Addition of Sir

#### U.S.Department of Health & Human Services

Hea

#### >> www.hhs.gov

National Library of Medicine

SIS Home About Us Site Map & Search SIS News

Environmental & Toxicology

#### Contact Us

SPECIAL ITED INFORMATION STRVIC

Search This Site

## Find Information About... Especially For Search TOXNET® Databases Other Professional Resources Resources for the Public Enviro-Health Links **Guides & Tutorials**



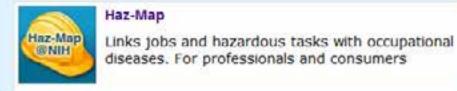
## Search Our Web Site Search (e.g. climate change)

**Quick Tours** 

A to Z Index of Resources

ABCDEFGHI 1 K LMNOPQR

#### For Information About...





#### Integrated Risk Information System (IRIS)

Hazard identification and dose-response

#### Search TOXNET

TOXNET - Collection of databases on hazardous chemicals, toxic releases, and environmental health

## (e.g.

mercury, asbestos)

#### In the Spotlight

Dietary Supplement Label Database

LiverTox

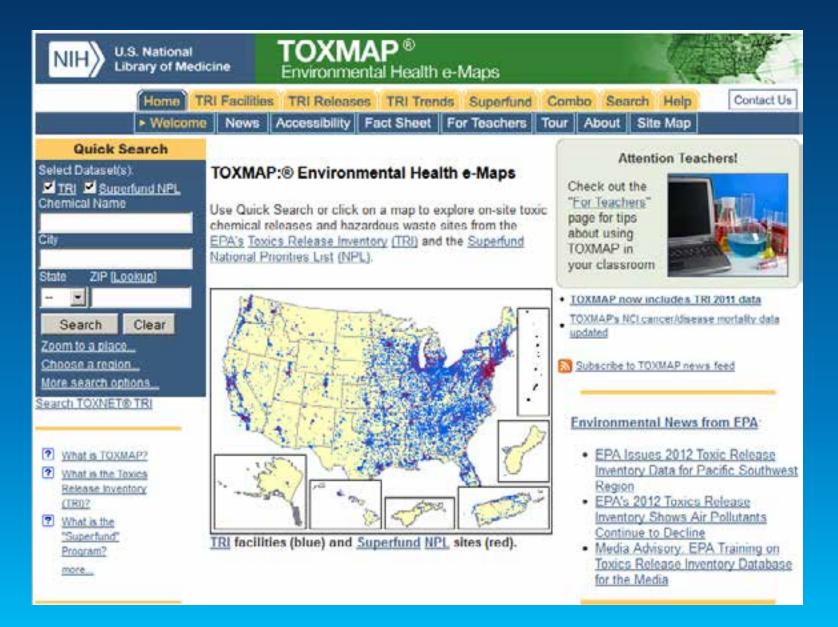
ALTBIB - Alternatives to Animal Testing

Which Resource Should I Use?

#### Stay Connected

Join the Listserv Subscribe to RSS

## TOXMAP



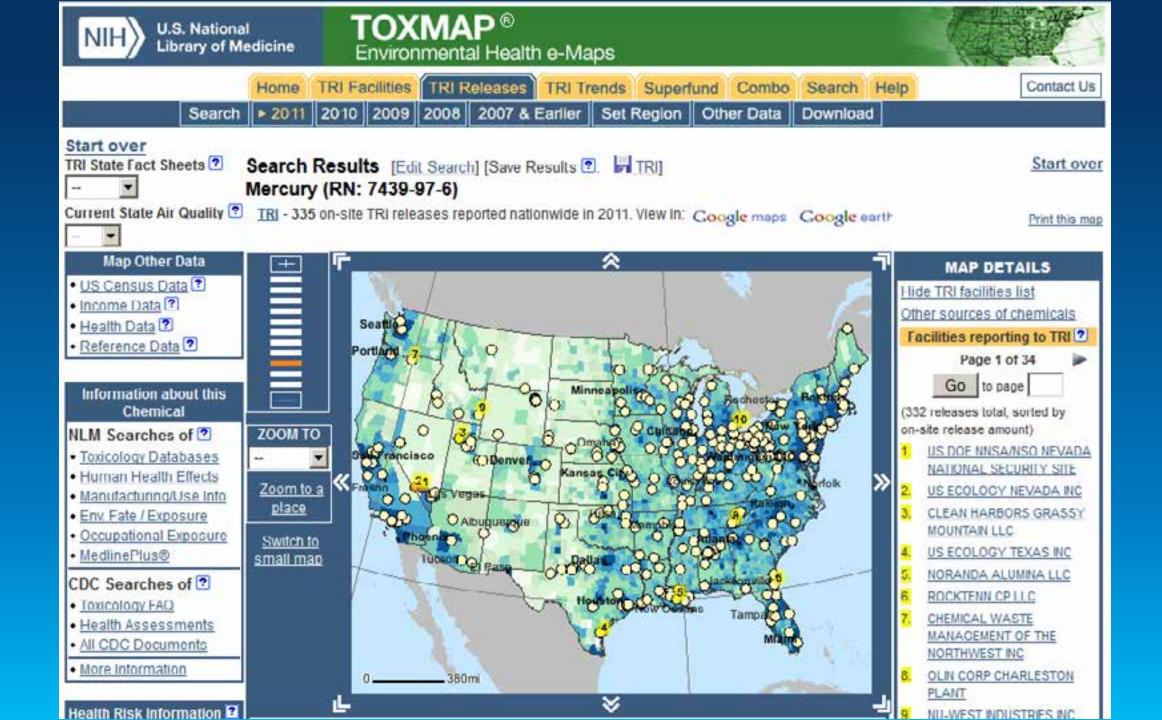
## **TOXMAP Development Team, 2002-2014**



Two-thirds of One developer 2011-2014

Images courtesy http://www.icons-land.com





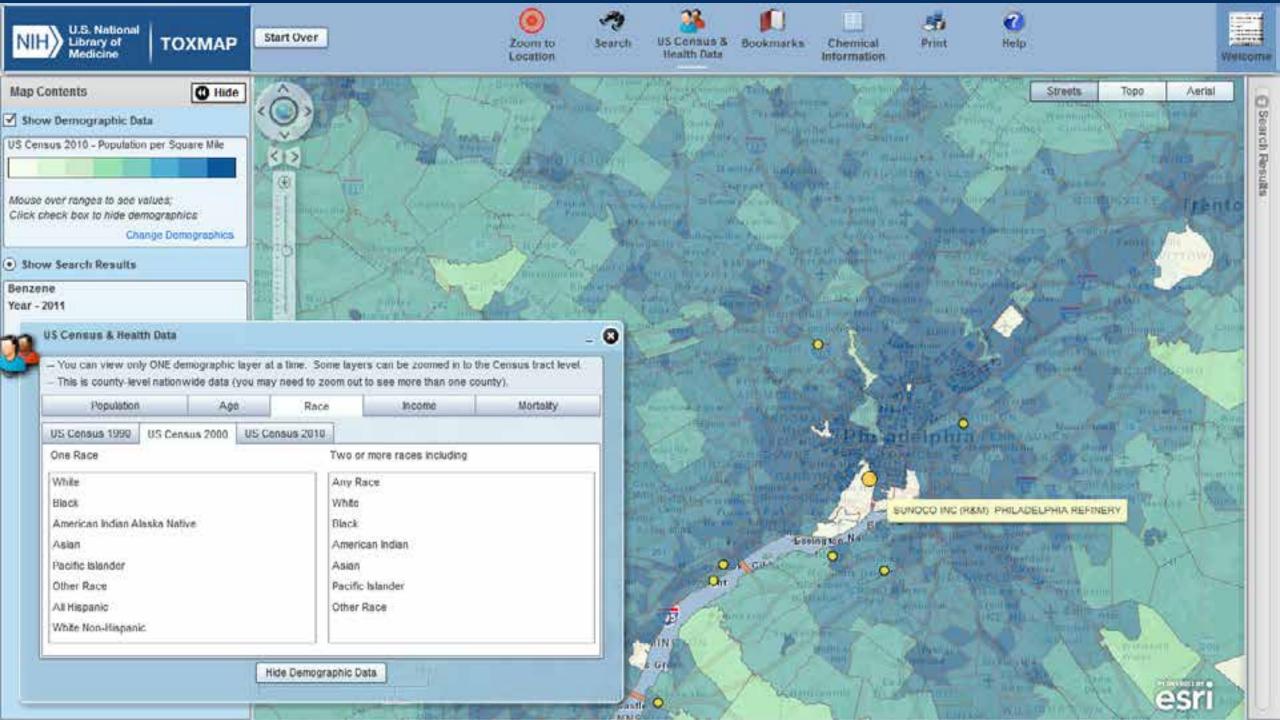
## **New TOXMAP**

## Now available!





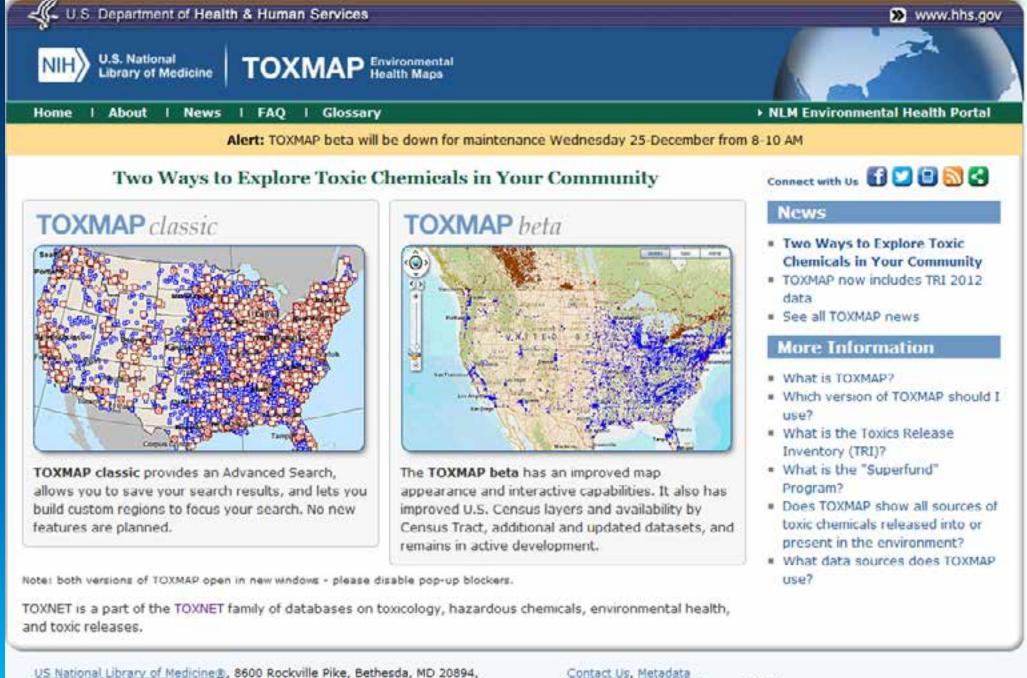




## **Data Integration**

- Pretty straightforward
- Simple Arc Catalog scripts
- Only one "hiccup" required a call to Esri tech support

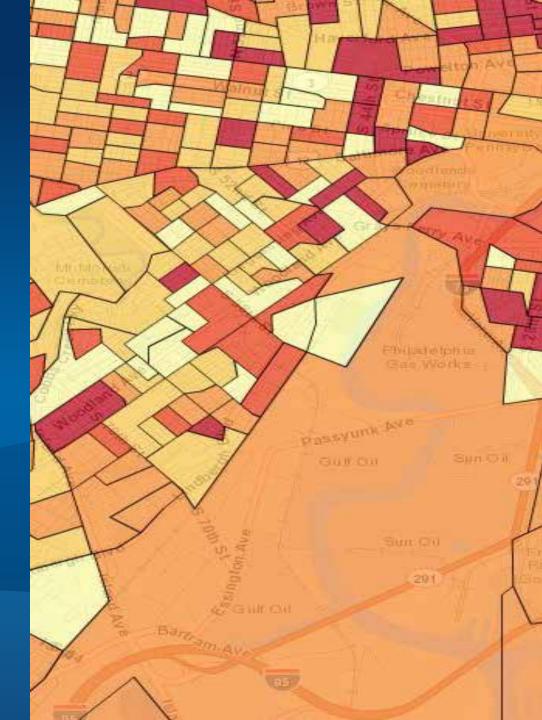
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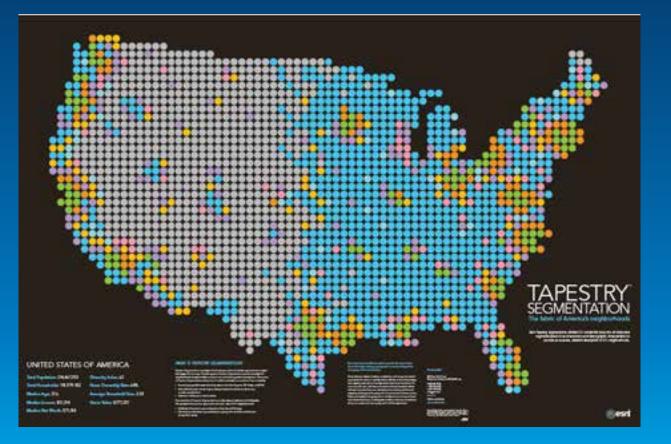
US National Library of Medicine®, 8600 Rockville Pike, Bethesda, MD 20894, National Institutes of Health, Department of Health & Human Services Copyright, Privacy, Freedom of Information Act, Accessibility Contact Us, Metadata Homepage Updated: February, 2014 EPA data: TRI- November, 2012; Superfund- December, 2009

# http://toxmap.nlm.nih.gov

# What's new in 2014?



# Tapestry Next Generation

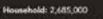


## What's changed?

- Effects of the Great Recession
  - reduced income and asset levels
  - lower home values
  - more subdued growth
- Increasing diversity
- Aging of the population
- New housing patterns from the past decade in evidence - less dense suburban developments that are almost rural



#### HeMode Groups Gen Kurban **Rustbelt Traditions**



Average Household Size: 2.46 Median Age: 31.6 Median Household Income: \$49,109

#### WHO ARE WE?

Ruettalt Traditions are apply named. Most residents are still luring it the same titles in affect they preve up, although there are some experiments that have initial to seamer climates. They do not follow lads or pursue the latest and greatest in product innovations. Although they tend to stick with what they know, they

5d

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

AGE BY SEX

have adapted to altertainment a



#### OUR NEIGHBORHOOD

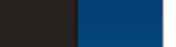
**Rustbelt Traditions** 

· Dominant household type: married couples (inside PE), with a slightly higher proportion of single parson households Stellar, 1010 that reflects the ageng of the population-· Household size lower at 2.48 (makes 95) · Housing units are premarily single family.

LABOR FORCE · Education: 68.3% with high achool clipions

tor some sollinger Unamployment rate lower at 7.8%.

· Laber force participation rate, 67% makes 1931, with recreated server



**APESTRY** 

5d

#### LifeMode Group: GenXurban 5d **Rustbelt Traditions**

#### WHAT ARE MARKET CHARACTERISTICS?

- · Purchased a used or new domestic solutile in past year
- · Own &r TVs, residuing Internet connectivity
- · Use listernet for shat mining gamming. Facebook and airea online balling
- · Investigants more apresentative, servings accounts or bonds
- + Stime remodeling and gardening are provides

POPULATION CHARACTERISTICS.

trial Appleton

- 100

and Papelinter Detailst Acad to

- · Partial to traditional media, magazines, wempopers and realiz-
- · Faitally orderined computers that value tone sparts at home

Description of cention have, Luplance also be net pres-cells term.

Becerium inclose, sceneroses fact bearin evenus as officianam.

Propulation Density discount propinger of head littles

- · Bullget aware shoppings that specifier comfort, brand loyalty--and Baging American
- · Digitally aware, but not schelly comfortable with the latest in sectoral op-

1.000



#### HOUSING

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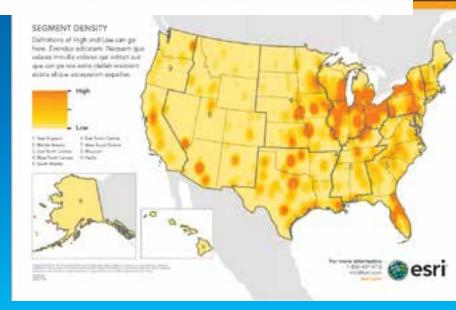
TAPESTRY

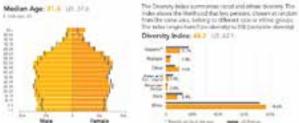
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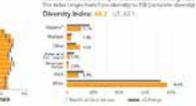


DieMade Gibligt GerXurban

AVERAGE HOUSEHOLD BUDGET Description of incluse have Luphshar arise has least setting odic tem facesum quiam. suprescule fact beate eveninai officipitam tempue.

Average Household

Sudget: \$47,000



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RACE & ETHNICITY

#### frankline state uses, belong to different take to ethic grinps. context and ine een anto odde time facalitati guilate. Description of localitat labor, Legenster attactor but actuindic tark birarium galam

Medan Household Income 341.715 Different ACCES Median Not Worth 171276 -A Married Streets 12104

INCOME AND NET WORTH

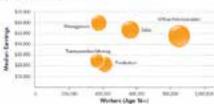
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odic terr fucerary palant. Description of section have.

#### OCCUPATION BY EARNINGS

10.00

Detertiphtees of another here. Legislater after the part arms only here factorized sport, surfacet fait boats avenue



# More

- More ACS Data
- More Infographics
- More Data Collections
- New Indexes
- More Global Demographic Data
- More information on Resource Center



## **More information**

All methodology statements are posted online.

http://www.esri.com/data/esri\_data www.esri.com/acs www.esri.com/census2010 www.esri.com/accuracy



# esridatainfo@esri.com



Understanding our world.