#### SOCIAL EXPLORER AND OTHER ALTERNATIVES TO AMERICAN FACTFINDER

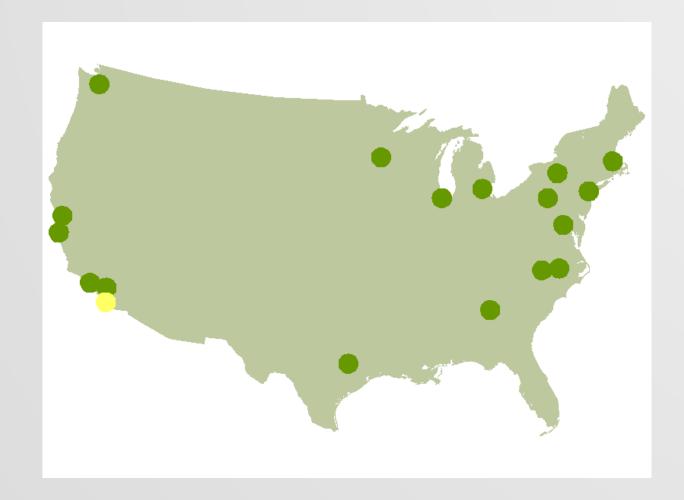
Todd Gardner Annual Meeting of the Rural Life and Census Data Center June 12, 2014

Disclaimer: This work is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views or opinions expressed are the author's own and do not necessarily reflect the view or opinions of the U.S. Census Bureau.

#### SOCIAL EXPLORER AND OTHER ALTERNATIVES TO AMERICAN FACTFINDER

Todd Gardner Annual Meeting of the Rural Life and Census Data Center June 12, 2014

# THE CENSUS BUREAU'S NATIONAL NETWORK OF RESEARCH DATA CENTERS



### SOURCES OF PUBLIC DATA



#### IPUMS-USA

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present.



National Historical Geographic Information System

Tabular U.S. census data and GIS boundary files from 1790 to the present.

Social Explorer®

Microdata for users who want to perform their own tabulations or regression analyses.

Aggregate data tables with boundary files for users with mapping software.

Aggregate data tables and online mapping.

### SOURCES OF PUBLIC DATA



#### IPUMS-USA

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present.

#### www.ipums.org



National Historical Geographic Information System

Tabular U.S. census data and GIS boundary files from 1790 to the present.

www.nhgis.org

Social Explorer®

www.socialexplorer.com

## IPUMS



#### **IPUMS-USA**

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present.

- Harmonized microdata
- US and international censuses
- Samples and complete censuses

#### Integrated Public Use Microdata Series



#### **IPUMS-International**

Harmonized data for 1960 forward, covering 544 million people in 238 censuses from around the world.



#### **IPUMS-USA**

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present.



#### **IPUMS-CPS**

Harmonized data on people in the Current Population Survey, every March from 1962 to the present.



#### North Atlantic Population Project

Complete-count data from 1800s censuses of Canada, Great Britain, Germany, Iceland, Norway, Sweden, and the U.S.



### NHGIS

The National Historical Geographic Information System (NHGIS) provides, free of charge, aggregate census data and GIS-compatible boundary files for the United States between 1790 and 2012.

- State and county aggregate data and boundary files (1790-2012)
- Census tract aggregate data and boundary files (1910-2012)
- Census data at all geographic summary levels, including census blocks (1970-2010)
- Boundary files for metropolitan statistical areas (1950-2012)
- Boundary files for all standard geographic summary levels (1990-2012)
- County Business Patterns data (1970-2003)
- SABINS aggregate data and boundary files for School Attendance Boundary Zones (2009-2010 academic year)



## NHGIS

Data Finder geographic levels

	Show compound geographic levels
Most Popular	Nation
All	W O Nation
Standard US	State
Small Area Statistical	County
Units	W 😔 County (by State)
Metropolitan and	Census Tract
Urban/Rural	🖤 😳 Census Tract (by StateCounty)
Place	Block Group Slock Group (by StateCountyCensus Tract)
Native American	Block
Legislative/Election	W S Block (by StateCountyCensus Tract)
	County Subdivision
County Subdivision	😻 😳 County Subdivision (by StateCounty)
ZIP Code	Place
School	🥨 😳 Place (by State)
NHGIS Time Series	Consolidated City © Consolidated City (by State)
Levels	
	Core Based (Metropolitan/Micropolitan) Statistical Area [2003-Present] © OMetropolitan Statistical Area/Micropolitan Statistical Area
	Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area [1990-2000] Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area
	Urban Area [1970-Present] 😻 📀 Urban Area
	5-Digit ZIP Code Tabulation Area [2000-Present] @ 0 5-Digit ZIP Code Tabulation Area
	5-Digit ZIP Code [1980-2002]

#### NHGIS IS THE DATA SOURCE FOR SOCIAL EXPLORER

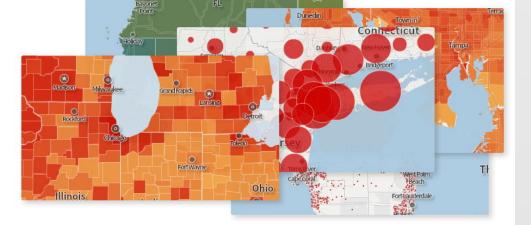
Social Explorer®	Maps & Tables	How To	Profe My Explorer	ssional Edition provided by Social Explorer
Мар	S		Tab	les

#### Present data in a clear, visually comprehensible manner.

Interactive maps can be made on a variety of subjects with data from several censuses.

#### Explore U.S. Demography

Explore 220 years of demographic data with over 20,000 socio-economic indicators between 1790 and the present. Includes all decennial censuses, American Community Surveys, and two religion surveys.



Start Here  $\rightarrow$ 

# SOCIAL EXPLORER DATA

- Census data: 1790 to 2010
- American Community Survey: 2005 to 2012
- InfoGroup data on religion
- Religious Congregations and Membership Study
- Vulcan Project Carbon Emissions Data
- System built for expansion

# FUTURE DATASETS

- Ireland data
- County election data
  - Presidential
  - Congressional
  - Senatorial
  - Gubernatorial
- County Business Patterns data
- Uniformed Crime Report data
- Future enhancement: users able to upload their own data

### DEVELOPMENT OF SOCIAL EXPLORER

# The New York Eimes



# DEVELOPMENT OF SOCIAL EXPLORER

- Social Explorer is led by Andrew A. Beveridge, a Professor of Sociology at Queens College and the City University of New York (CUNY) Graduate School
- Since 1993 Beveridge has served as a consultant to the New York Times on issues of demographic and social change
- Social Explorer originated in 1999
- Support from the National Science Foundation and The New York Times
- In 2009 Social Explorer partnered with Pearson Education to create interactive mapping and reporting activities for popular university sociology textbooks
- Since 2010 Social Explorer has been distributed by Oxford University Press
- Current version of Social Explorer launched in 2013

# SOCIAL EXPLORER TECHNOLOGY

- Client-based map rendering
- Cloud-based
- Fast, interactive user interface
- Built on Flash with HTML 5 in development
- Mobile version

Adjust \$ values for inflation to:	None	\$		Ta	ables 1	- 10 of 32
Statistics		United St	ates	District Columbia, D of Colum	istrict	
SE:T1. Total Population						
Total Population		309,138,711		605,759		
SE:T2. Population Density (	per sq. mile)					
Total Population		309,138,711		605,759		
Population Density (per sq. mile)	1	87.5		9,922.6		
						1
Area (Land)		3,531,905.35		61.05		
SE:T56. Household Income	(In 2012 Inflation Adj			61.05		
	(In 2012 Inflation Adj			261,192		
SE:T56. Household Income	(In 2012 Inflation Adj	justed Dollars)	7.2%		10.5%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673	5.4%	261,192 27,304 11,975	4.6%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302	5.4% 5.3%	261,192 27,304 11,975 9,726	4.6% 3.7%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899	5.4% 5.3% 5.4%	261,192 27,304 11,975 9,726 9,771	4.6% 3.7% 3.7%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724	5.4% 5.3% 5.4% 5.2%	261,192 27,304 11,975 9,726 9,771 9,231	4.6% 3.7% 3.7% 3.5%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999	(In 2012 Inflation Adj	iusted Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053	5.4% 5.3% 5.4% 5.2% 5.2%	261,192 27,304 11,975 9,726 9,771 9,231 9,489	4.6% 3.7% 3.7% 3.5% 3.6%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999	(In 2012 Inflation Adj	iusted Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262	5.4% 5.3% 5.4% 5.2% 5.2% 4.8%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651	4.6% 3.7% 3.5% 3.6% 3.7%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464	5.4% 5.3% 5.4% 5.2% 5.2% 4.8% 4.8%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683	4.6% 3.7% 3.7% 3.5% 3.6% 3.7% 4.1%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$49,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620	5.4% 5.3% 5.4% 5.2% 5.2% 4.8% 4.8% 4.2%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672	5.4% 5.3% 5.4% 5.2% 5.2% 4.8% 4.8% 4.8% 4.2% 8.1%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$34,999 \$40,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999 \$60,000 to \$74,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672 11,622,280	5.4% 5.3% 5.2% 5.2% 4.8% 4.8% 4.2% 8.1% 10.1%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914 21,497	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5% 8.2%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999 \$60,000 to \$74,999 \$75,000 to \$99,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672 11,622,280 14,110,448	5.4% 5.3% 5.2% 5.2% 4.8% 4.8% 4.2% 8.1% 10.1% 12.3%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914 21,497 29,172	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5% 8.2% 11.2%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999 \$60,000 to \$74,999 \$75,000 to \$99,999 \$100,000 to \$124,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672 11,622,280 14,110,448 9,236,956	5.4% 5.3% 5.2% 5.2% 4.8% 4.8% 4.2% 8.1% 10.1% 12.3% 8.0%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914 21,497 29,172 22,457	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5% 8.2% 11.2% 8.6%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999 \$60,000 to \$74,999 \$75,000 to \$99,999 \$100,000 to \$124,999 \$125,000 to \$149,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672 11,622,280 14,110,448 9,236,956 5,531,631	5.4% 5.3% 5.2% 5.2% 4.8% 4.8% 4.8% 4.2% 8.1% 10.1% 12.3% 8.0% 4.8%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914 21,497 29,172 22,457 14,978	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5% 8.2% 11.2% 8.6% 5.7%	
SE:T56. Household Income Households: Less than \$10,000 \$10,000 to \$14,999 \$15,000 to \$19,999 \$20,000 to \$24,999 \$25,000 to \$29,999 \$30,000 to \$34,999 \$35,000 to \$39,999 \$40,000 to \$44,999 \$45,000 to \$49,999 \$50,000 to \$59,999 \$60,000 to \$74,999 \$75,000 to \$99,999 \$100,000 to \$124,999	(In 2012 Inflation Adj	justed Dollars) 115,226,802 8,272,970 6,260,673 6,139,302 6,169,899 6,004,724 5,935,053 5,469,262 5,507,464 4,802,620 9,307,672 11,622,280 14,110,448 9,236,956	5.4% 5.3% 5.2% 5.2% 4.8% 4.8% 4.8% 4.2% 8.1% 10.1% 12.3% 8.0% 4.8% 4.8%	261,192 27,304 11,975 9,726 9,771 9,231 9,489 9,651 10,683 8,606 16,914 21,497 29,172 22,457	4.6% 3.7% 3.5% 3.6% 3.7% 4.1% 3.3% 6.5% 8.2% 11.2% 8.6% 5.7% 7.6%	

### CUSTOM REPORTS

### CUSTOM REPORTS

Download data in Excel format

#### Census 2010

Choose census year 

Geographies 

Tables 

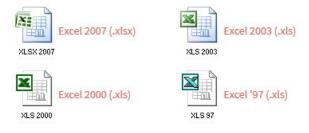
Results



Download the report as a Microsoft Excel file. Several versions of Excel are supported: 2007, 2003, 2000 and '97. The most notable difference is that versions prior to Excel 2007 are limited to 255 columns and 65,535 rows, per sheet. For these versions, if you select more than 255 geographies, they will be output on separate sheets. You may also choose to output just the totals.

Please set options before you download the report:
□ General options:
<ul> <li>Output percents</li> <li>Output totals only (aggregates)</li> </ul>

#### Download Microsoft Excel:



## CUSTOM REPORTS

Download data for use with statistical software

#### Census 2010

Choose census year 

Geographies 

Tables 

Results

Report Excel D	ta Download 😁 Link
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Download data in CSV format. CSV stands for Comma Separated Values, and it is a highly portable format that can be read by many software programs including many statistical packages, databases, spreadsheets and GIS applications. You can also open these files directly in Microsoft Excel or import the data into Microsoft Access. Encoding: Western Latin-1 (ISO-8859-1).

Please set options before you download any data or import programs (these options affect both).

Output options:

- TAB delimited files (STATA users should use this option to make import more efficient & accurate!)
- Output column labels in the first row
- Output ALL geographic identifiers
- Output percents (first variable in each table is the base)
- Output DBF friendly column names

#### Download data by geography type:

Nation data (CSV)
 Summary Level: 010
 Geography Nesting: Nation
 Selected: 1

Download programs to import and label data:

SAS
 SPSS
 STATA: (please select TAB delimited files in Output Options above)
 Data dictionary (text file)

### TABLES

#### Choose geography first

#### Social Explorer®

#### Census 2010

Choose census year 

Geographies 

Tables 

Results

List Geographies	FIPS Codes
Select a geographic type: (Show	all geographies)
050 County	
Select a State:	
South Dakota	
Select one or more geographic and Bon Homme County, South Dakota Brookings County, South Dakota Brown County, South Dakota Brule County, South Dakota Buffalo County, South Dakota Campbell County, South Dakota Charles Mix County, South Dakota Clark County, South Dakota	eas and click 'add':
Add V Remove Add Current Geography Selections:	
current deography selections;	



### TABLES

- Choose from list
- Search by Keyword
- Premade Reports

#### Social Explorer®

#### ACS 2008 -- 2012 (5-Year Estimates)

Choose census year 

Geographies 

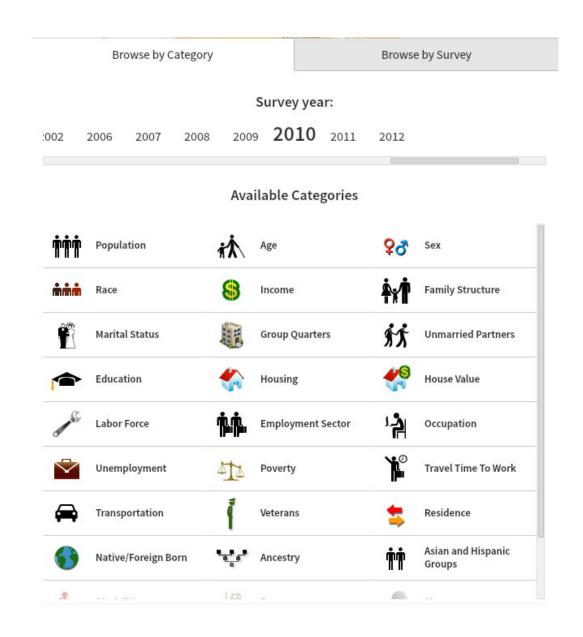
Tables 

Results

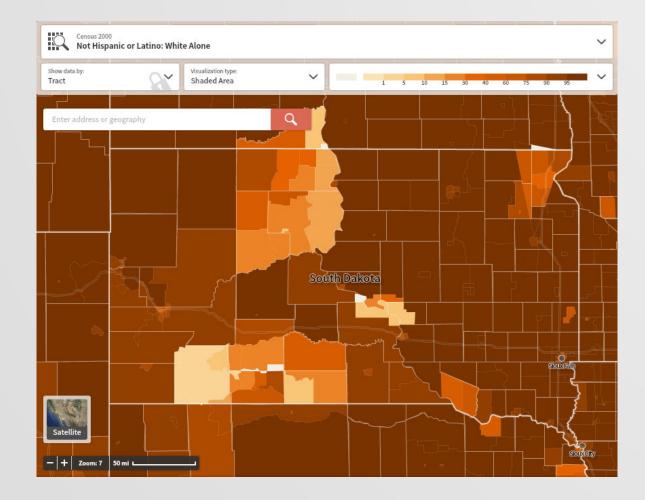
List Tables	Search by Keyword	Premade Reports	
Select a dataset:			
Social Explorer Tables: ACS 2008	to 2012 (5-Year Estimates)	•	
Select one or more tables and o	click 'add':		
T49. Industry By Occupation For E T50. Occupation For Employed Civ T51. Occupation For Male Employ T52. Occupation For Female Empl T53. Employment Sector For Empl T54. Employment Sector For Male T55. Employment Sector For Fema T56. Household Income (In 2012 In T56A. Household Income (In 2012	Inflation Adjusted Dollars) - Cumulati Inflation Adjusted Dollars) - Cumulati	s And Over Over nd Over ars And Over Years And Over ve (Less)	•
Add V Remove	an and Alaska Native; NHPI - Native	Hawaiian and Other Pacific Islande	r
Current Table Selections:			
	Show results		

### MAPS

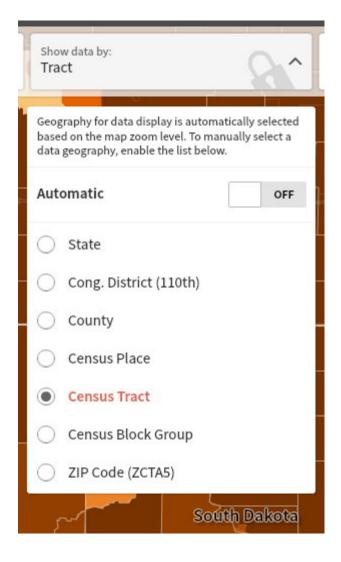
- Browse by Category
- Browse by Survey
- Choose survey year



#### SOCIAL EXPLORER MAP PERCENT WHITE NON-HISPANIC IN SOUTH DAKOTA, 2000



## CHANGE GEOGRAPHIC LEVEL



### CHANGE VISUALIZATION

#### Visualization type: Shaded Area

#### Shaded Area

The Shaded Area Map displays data as darker or lighter colors corresponding to areas of higher or lower value.

~

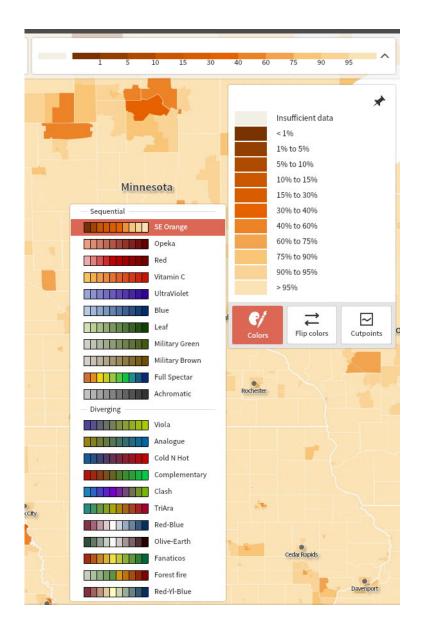
#### 💦 Bubbles

The Sized Bubble Map displays data as circles of varying size. The size of each circle corresponds to it's value - the higher the value, the larger the circle.

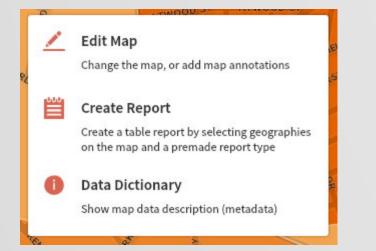
#### Dot Density

The Dot Density Map displays data as dots representing a discrete amount of values per dot. The dots are randomly scattered across the area.

### CHANGE COLORS

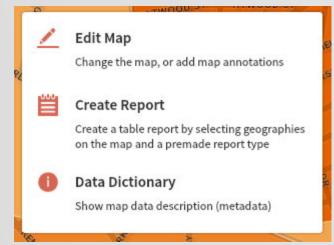


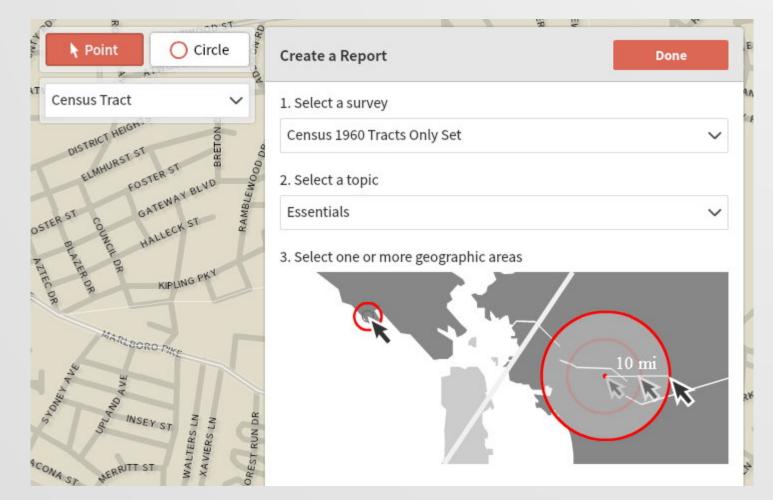
### EDIT MAP



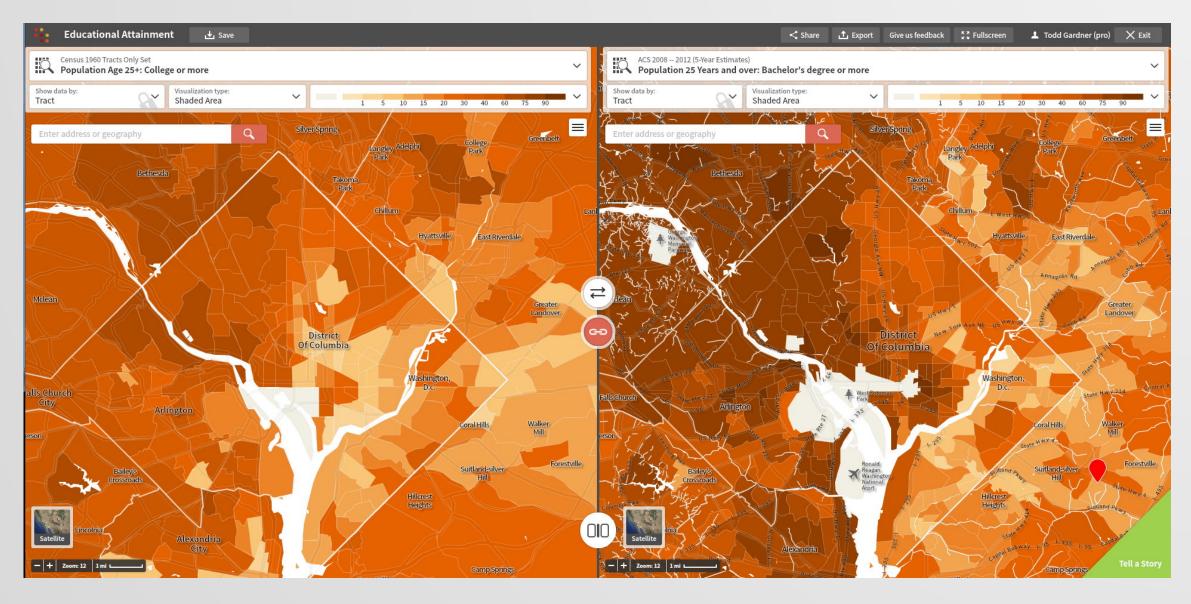
An	notate		Basemaps			
Create new						
Marker	د Arrow	<b>L</b> Hotspot	<b>N</b> Line	Shape		
ہر Freehand	Abc Label					
Show map lege	end		Edit	OFF		

### CREATE REPORT

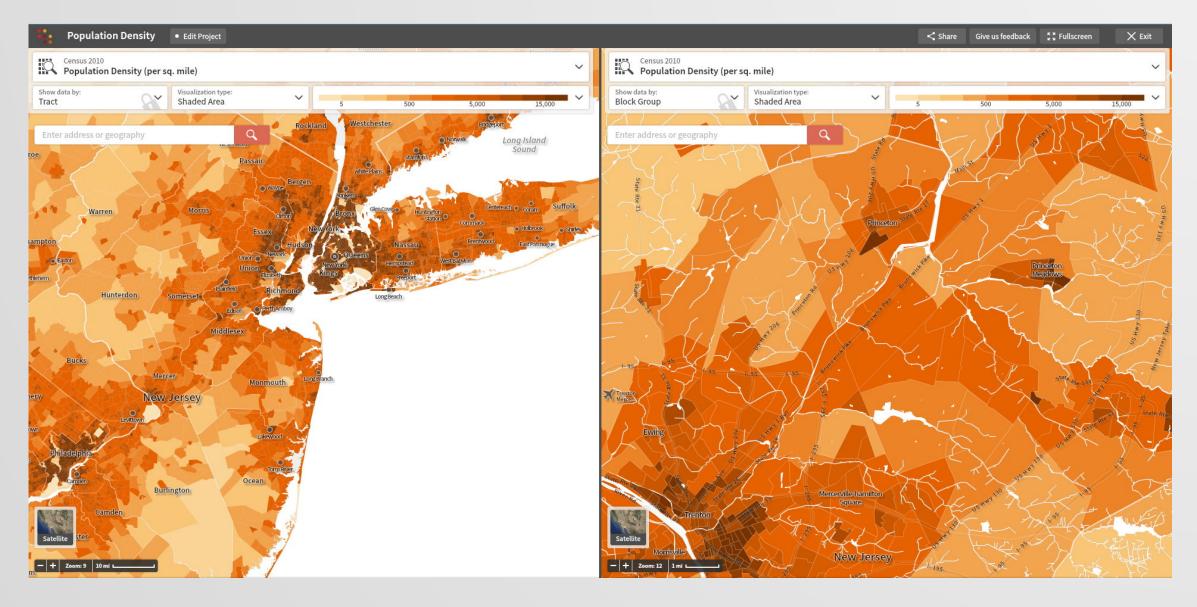




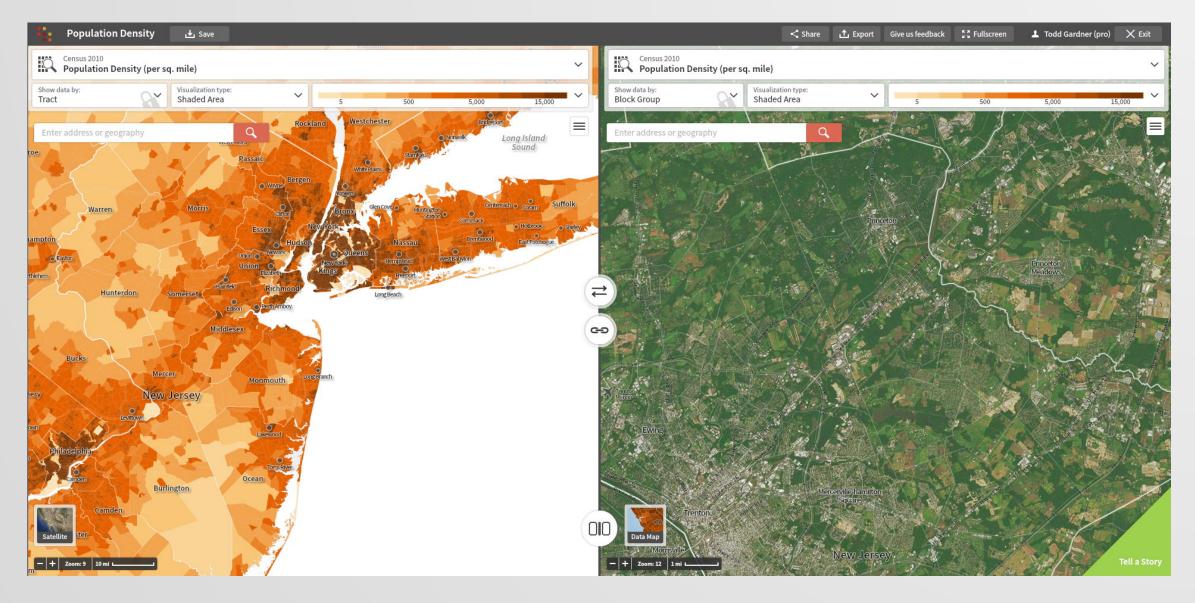
### SPLIT SCREEN MAP



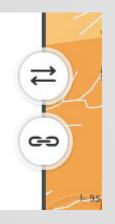
### SPLIT SCREEN MAP



### SPLIT SCREEN MAP



### SPLIT SCREEN COMMANDS

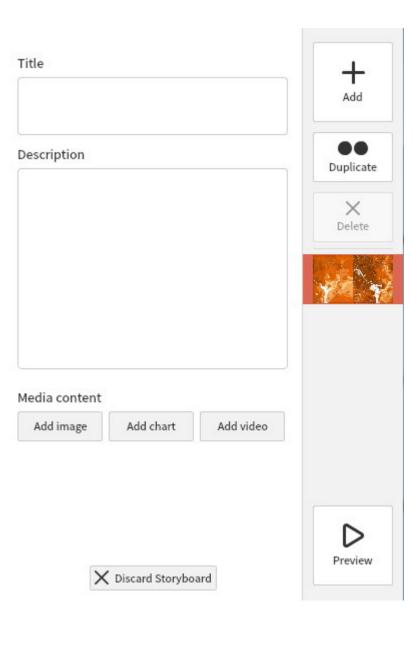


Flip images

Lock images



#### TELL A STORY



## MANAGING PROJECTS

• Save

• Print

- Export
- Share

Export		×		
Image	Powerpoint	DEURSUA		
Image size:	Share			×
Current screen resolution	Link	Collaborate	E-mail	Embed
It may take a few moments to prepare the image, Prepare to download	LINK to share:	ocialexplorer.com/s	99b5fe1cc7/view	
	Share via:		g+ P	t

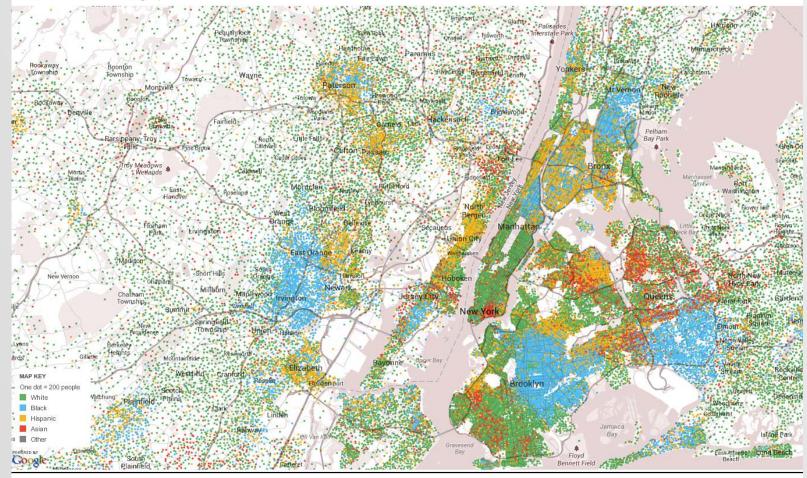
### SOCIAL EXPLORER IN THE NEW YORK TIMES

#### The New York Times

#### Mapping America: Every City, Every Block

Browse local data from the Census Bureau's American Community Survey, based on samples from 2005 to 2009. Because these figures are based on samples, they are subject to a margin of error, particularly in places with a low population, and are best regarded as estimates.

#### Distribution of racial and ethnic groups



By MATTHEW BLOCH, SHAN CARTER and ALAN MoLEAN | Source: 2005-9 American Community Survey, Census Bureau; socialexplorer.com

## SOCIAL EXPLORER AT ELLIS ISLAND

- Part of an interactive exhibit on ancestry
- 12 million visitors



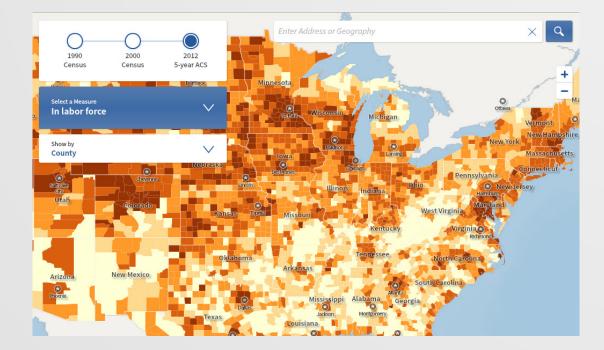
### SOCIAL EXPLORER AT ELLIS ISLAND



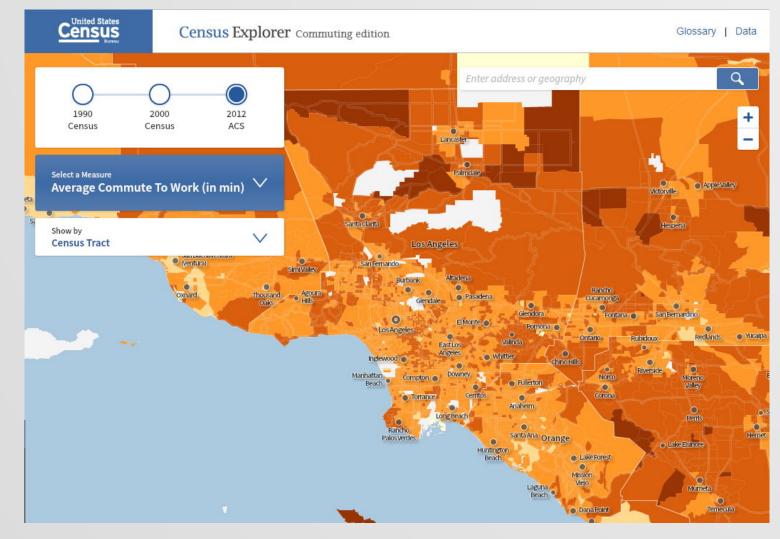
### **CENSUS EXPLORER**

www.census.gov/censusexplorer





#### CENSUS EXPLORER: COMMUTING EDITION



### SOURCES OF PUBLIC DATA



#### IPUMS-USA

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present.

#### www.ipums.org



National Historical Geographic Information System

Tabular U.S. census data and GIS boundary files from 1790 to the present.

www.nhgis.org

Social Explorer®

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# THANK YOU

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