

CIVIC

DIGITAL

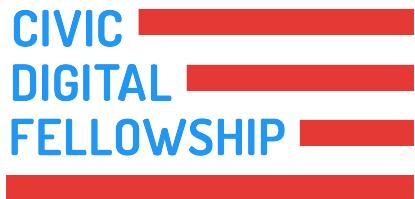
FELLOWSHIP

Census for Small Businesses

Communications Directorate

Lisa Wolfisch – *Acting Director, Center for New Media and Promotions*

Michele Bartram – *Customer Experience Officer*



MARIAM BAQAI

Mills College
Economics & Computer Science

ANNA WANG

University of Texas at Austin
BHP/Information Systems

RACHEL DODELL

Wellesley College
Media Arts & Sciences

99.7%

of all business are small businesses

50%

of non-farm GDP is created by
small businesses

**Beauty salons, day
cares, bars, hotels...**

some of the top hard-to-count segments

“How is that information
used? Where does it go?”

SMALL BUSINESS - PITTSBURGH

“If I could get a result back
from one, I would gladly
participate”

SMALL BUSINESS – MIAMI

**Small businesses do not understand the value of Census Bureau data
or how they can use it to build a better business**

The current site is *about* the Census Bureau, not for its audience.

Citizens are expected to figure out what is relevant to them.

The screenshot shows the 'Small Business' section of the Census Bureau website. At the top, there's a navigation bar with links for Topics, Geography, Library, Data, Surveys/Programs, Newsroom, and About Us. Below the navigation, a breadcrumb trail shows the path: Census.gov > Topics > Business > Small Business. The main title 'Small Business' is in bold blue text. To the left, a sidebar lists links for 'About this Topic', 'Data', 'Library', 'News', 'Related Sites', and 'Surveys/Programs'. The main content area features a paragraph about finding statistics for small businesses, followed by three call-to-action buttons: 'Know Your Customers', 'Start Planning Your Business', and 'Find Your Classification Code'. On the right, there's a large image of a woman opening a door with a sign that says 'OPEN'. Below this, a 'Latest' section includes news items like 'Census Business Builder Now Includes "My Own Data" Upload' and 'Stats for Stories: National Small Business Week'. A 'QuickFacts' sidebar on the far right displays a map of South Dakota with the text 'Population per square mile in Yankton city, South Dakota is 1,760.5'.

This is the **Census Business Builder**, the main tool developed by the Economic Directorate for small businesses.

The data is incredible, but the tool is difficult to access and use.

 **Census Business Builder: Small Business Edition - 2.2**

[Privacy Act Statement](#) [FAQs](#) [Send Feedback](#)

Determine the Best Location for Your Business

1. What type of business do you want to research?

Select the type of business you want to research by either selecting it first from the "Most Popular" broad categories and then from the detailed list provided...

 Construction
 Food Services
 Healthcare
 Personal Services
 Prof & Biz Services
 Retail

or Search for your type of business

Industry Title, Keyword, or NAICS Code

2. Where are you considering locating the business?

Select the location you want to research either clicking on the My Location button or by searching for it

My Location

or

State, County, City/Town, or ZIP Code

Click "Go to Map" to browse the information about the potential customers and competitors for the location and surrounding locations you are researching OR...

Go to Map

... Click "Create Report" to go straight to the report for your type of businesses and location

Create Report

Powered by the U.S. Census Bureau and Esri. For help using this tool (including tutorial videos and FAQs), see the [CBB Home Page](#)
Learn more about other Census Bureau data that can help grow your business or understand your region by visiting the [Census Home Page](#)
Release: 2.2 (Build: 16)

Our task

To communicate the value of Census Bureau data to small businesses

- I. Design an audience-centered space for small businesses to access and use Census data
- II. Demonstrate a methodological, repeatable process for other audience-centered pages in the future

Our Minimum Viable Product (MVP) went live this week.

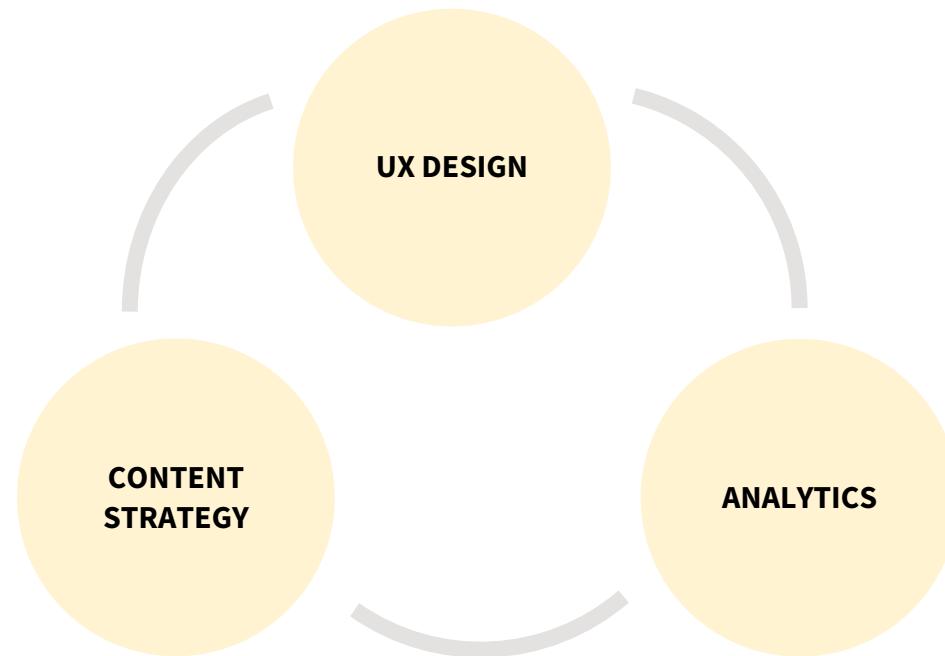
- ✓ **User-centric**
- ✓ **Intuitive**
- ✓ **Accessible**
- ✓ **Friendly**

CHECK IT OUT >>

The screenshot shows a web browser displaying a secure version of the Census Small Business website at <https://uscensusbureau.github.io/census-small-business/>. The page features a dark blue header with the United States Census Bureau logo and navigation links for Home, Start a business, Grow a business, Explore resources, and Get advice. Below the header is a large image of two people working at a desk with a laptop, smiling and looking at papers. Overlaid on this image is a white call-to-action box containing the text "Powerful Data for Your Small Business" in bold, followed by "Start making data-driven decisions, today." and a red "START NOW" button. At the bottom of the page, there is a quote: "Every successful business starts and grows with research. Find the best data about your customers and competitors." A horizontal blue bar is visible at the very bottom of the page.

Approach

We used an interdisciplinary approach in order to develop a holistic solution



User Research

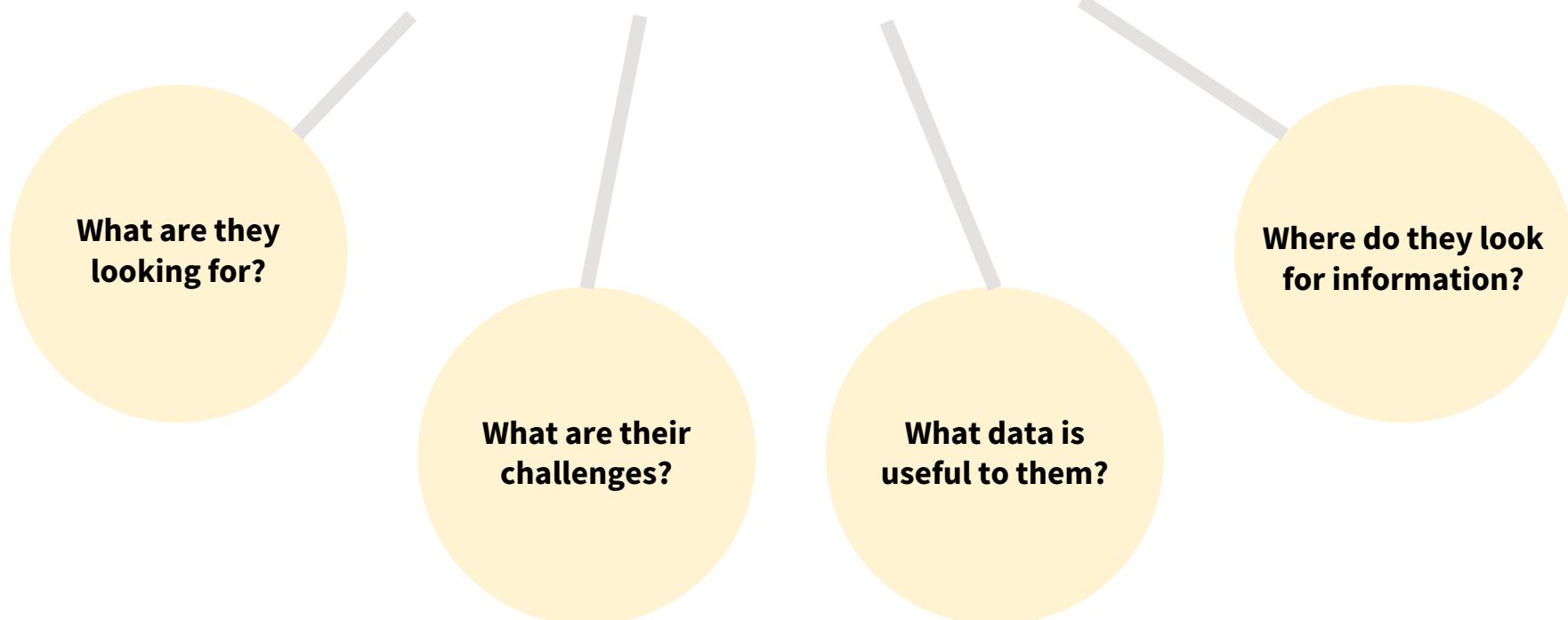
We conducted qualitative user research to better understand our small business users using a repeatable process

THE PROCESS

- 01** Identify goal of research
- 02** Formulate questions
- 03** Interview users strategically
- 04** Create personas
- 05** Inform design decisions

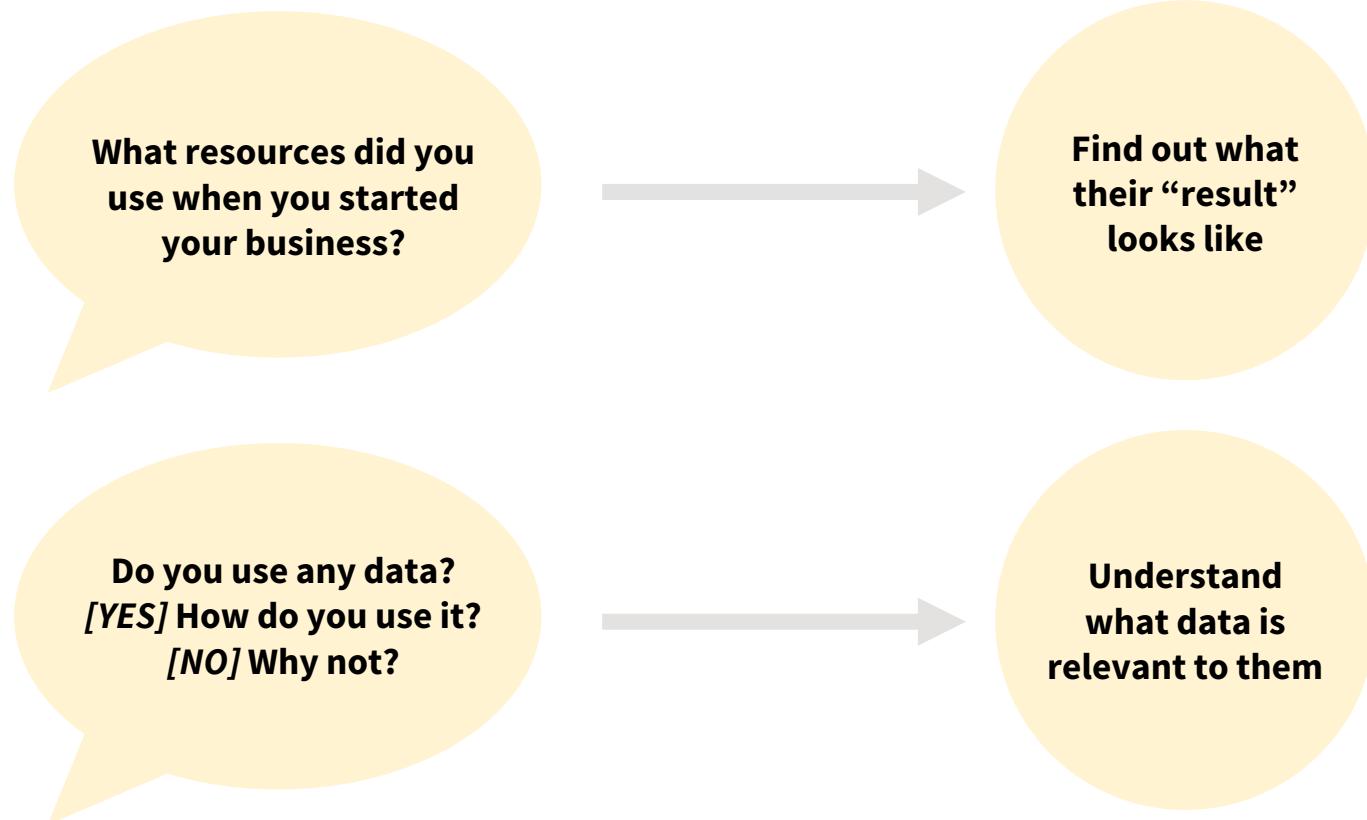
01 Identify goal of research

To better understand our Small Business users



02 Formulate questions

Questions map directly to a specific goal



03 Interview users strategically

We interviewed three different audiences in order to understand the small business needs from all perspectives



04 Create personas

We created personas for three types of small business users based on their stage of business and mapped their needs

DREAMER DAN

	Education HIGH SCHOOL GRADUATE
	Product Knowledge BEGINNER
	Experience 0 YEARS
LIKES	
Google Easily accessible information Free information	
DISLIKES	
Complicated site navigation Extensive research Spending money	

Dan is currently employed but wants to start his own restaurant business. He doesn't know a lot about the restaurant industry, and does not know how to get started. Dan searches online for more information about the restaurant industry, how to create a business plan,



STARTUP SALLY

	Education COLLEGE GRADUATE
	Product Knowledge INTERMEDIATE
	Experience 4 MONTHS
LIKES	
Easily accessible information Social Media	
DISLIKES	
Surveys Forms Time-intensive activities	

Startup Sally has just launched her Marketing Agency. Before she launched, Sally needed to know her NAICS code in order to get help from the SBA. Sally has all her business forms filed but doesn't know how to reach her customers. She tries social media outreach and Facebook ads. Sally is thinking about hiring her



ESTABLISHED EDDY

	Education GED, COLLEGE GRADUATE
	Product Knowledge EXPERT
	Experience 3 YEARS
LIKES	

Eddie has owned an auto repair shop for 3 years. He has 5 employees, but is always looking for more help. Eddie knows his customers, but wants to acquire more. Eddie has filled out Census surveys 3 times. He looks at zip code data and demographic data to find his customers. Eddie is now thinking about opening another location.



CHALLENGES

- Finding employees
- Advertising
- Acquiring customers

SKILLS

- Deep industry knowledge

JOURNEY MAPS

	START	LOOKING FOR	DESIRED RESULT	HOW TO CAPTURE
DREAMER DAN		Business Plan How to start a business in x location	Step by step guide Various types of content	Provide localized data "Census data could be helpful"
STARTUP SALLY		NAICS code How to choose location for business	Simple NAICS code search Guidance on factors to consider choosing location	Simplify NAICS search "Census info is user-friendly"
ESTABLISHED EDDY		Target market data Employee salary statistics	Customer data by zip code Industry employee salaries	Quickly present use cases "Census data is relevant to me"
		Industry competitor data Customer data by zip code	Detailed reports	Improve messaging about report feature "Census data is comprehensive and easy to obtain"

05 Inform design decisions

We then used this research to inform our key design decisions,
always putting the user first

CONCLUSION

CBB is a great tool but largely miscommunicated

Small business lack time and care about localized, specific data

Small businesses don't know which data they need

DESIGN DECISION

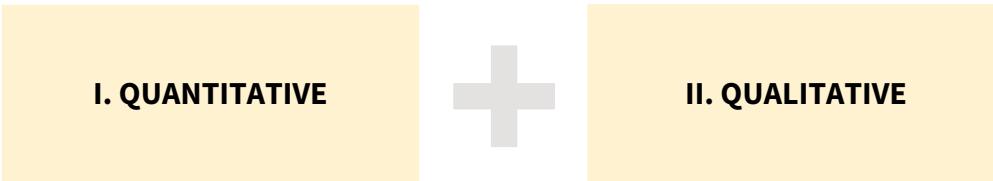
Use the new site to **quickly communicate the value** of CBB
Key messages to communicate: **use cases, report feature**

Quickly **show the value upfront** without requiring small business to use CBB initially
Reduce high upfront transaction cost

Illustrate **success stories** and provide **walkthrough use cases** to demonstrate how their questions can be answered with census data

Analytics

We conducted an **insights-driven internal audit** through both **quantitative** and **qualitative** approaches to understand how current small business-related pages were performing



I. Quantitative analysis

We used Adobe Analytics to run customized internal reports.

In analyzing data we considered *single-page visits, exit pages, average time spent on page, and more* in order to **understand the way customers are interacting with the site.**

28%

exit NAICS search immediately

46%

immediately leave small business topics page

56%

CBB users left without creating a report

II. Qualitative analysis

Numbers don't tell stories.

We combined insights gained from speaking to the Call Center with ForeSee customer feedback to understand users' pain points.

"I guess it's not your job to explain NAICS to the general public,

but there's no way to search on the site if you don't understand NAICS. Useless."

"The data you guys collect is great but this website is cumbersome and almost impossible to use.

Where is the guide that says, 'ok, if you are trying to do this, here's where you go'"

Strategic takeaways

We used this data to create and validate insights from our user research about the digital experience of our small business users.

- 1. Census Bureau data is not easily accessible to novice users**
- 2. The Census is not providing value to small business owners**
- 3. Census Business Builder navigation is not user-intuitive**
- 4. NAICS page has high traffic but low customer satisfaction**
- 5. Analytics indicate user frustration with small business-related pages**

Content Strategy

We used user-centric language to transform our content and make it accessible for small business owners

THE PROCESS

- 01** Conduct content audit
- 02** Establish voice and tone
- 03** Create site map
- 04** Produce meaningful content
- 05** Implement SEO

01 Conduct content audit

We conducted an audit examining existing Census content, as well as our partner and competitor sites, to understand the current strategy and its successes and pitfalls.



WHO IS THE CONTENT OWNER?

WHAT CONTENT IS AVAILABLE ON CENSUS.GOV?

WHAT ARE OUR CONTENT COMPETITORS DOING?

02 Establish voice and tone

We identified key goals and worked to define the Census Bureau's personality as it adapted to our business audience.

VOICE

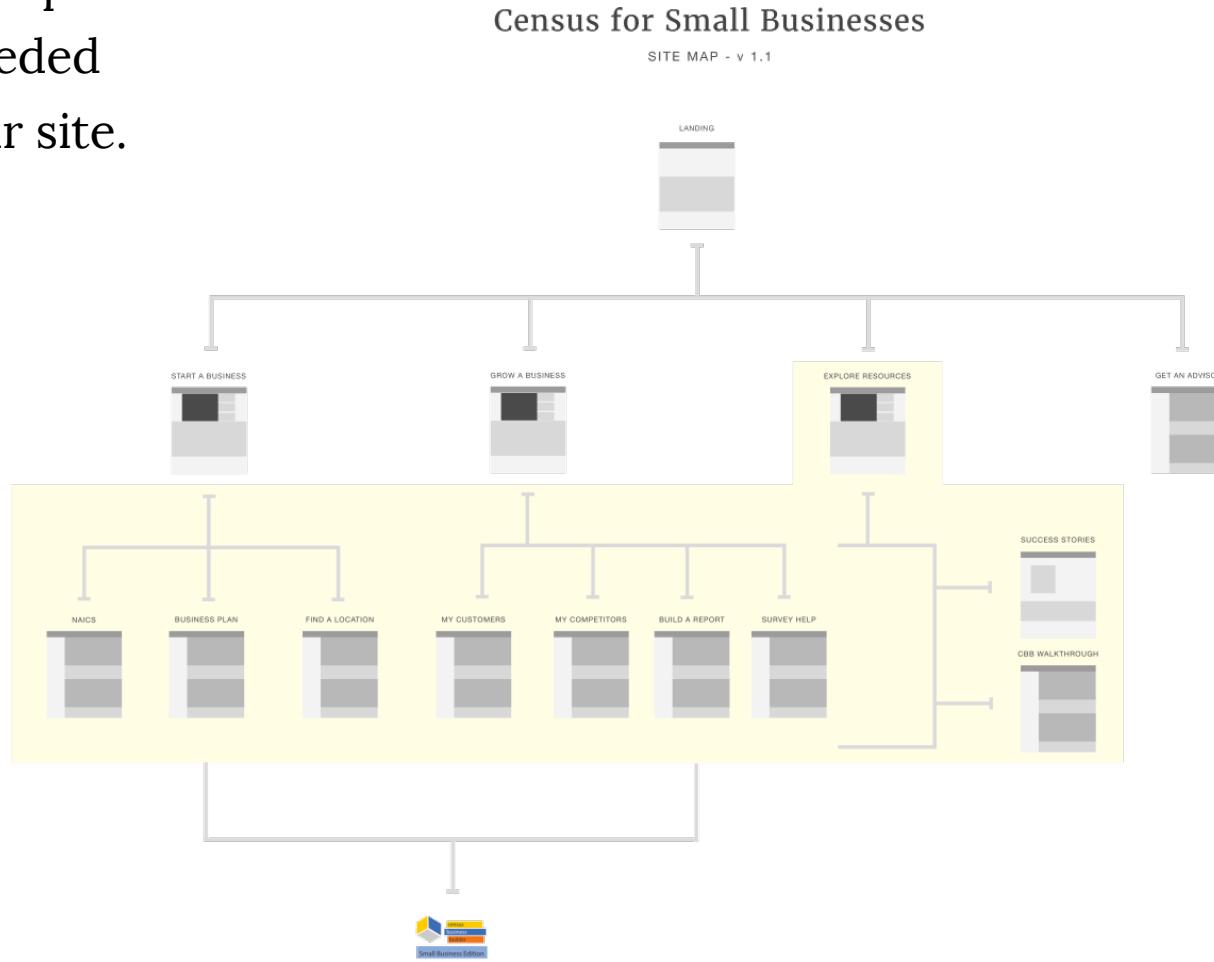
Human – but also a government agency
Friendly – yet not too casual
Expert – but not condescending
Objective – yet not emotionless

TONE

Goal-oriented
Instructive

03 Create a site map

We worked together to create a site map showing what types of content we needed and how users would interact with our site.



04 Produce meaningful content

We mapped our content needs to our goals to create content that would bring value to our small business users.

TOPIC PAGES

Business Plan, Customers

WALKTHROUGHS & USE CASES

Using CBB, Start a Restaurant

MICROCOPY & GRAPHICS

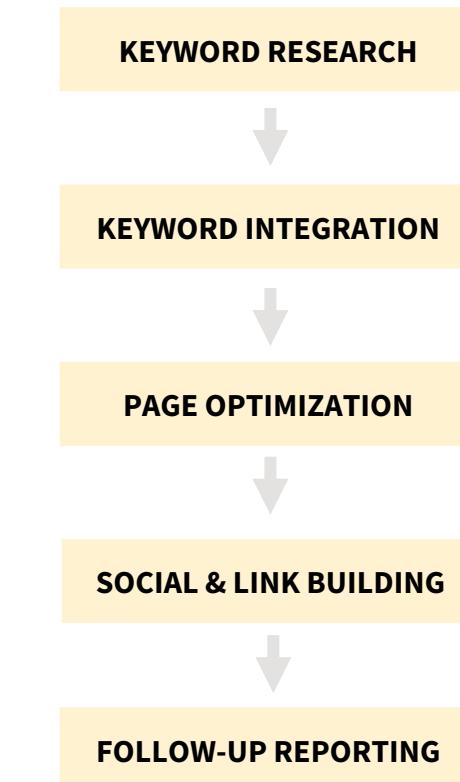
Teaser text, GIFs, Images

05 Implement Search Engine Optimization

We found underrated content, which is characterized by a high number of visits but a low number of search engine referrals.

These pages presented an opportunity to optimize, but there was no **Search Engine Optimization (SEO)** process.

THE PROCESS



Wireframes & Development

Using these design decisions, we made quick low-fidelity mockups to show to potential users

After getting feedback on the designs we developed an MVP following U.S. Web Design Standards and its pattern library

The final design decisions were the result of an interdisciplinary approach to conducting research.

Quickly **show the value of CBB**



56%

CBB users left without making a report



Help users understand how to use Census Bureau tools

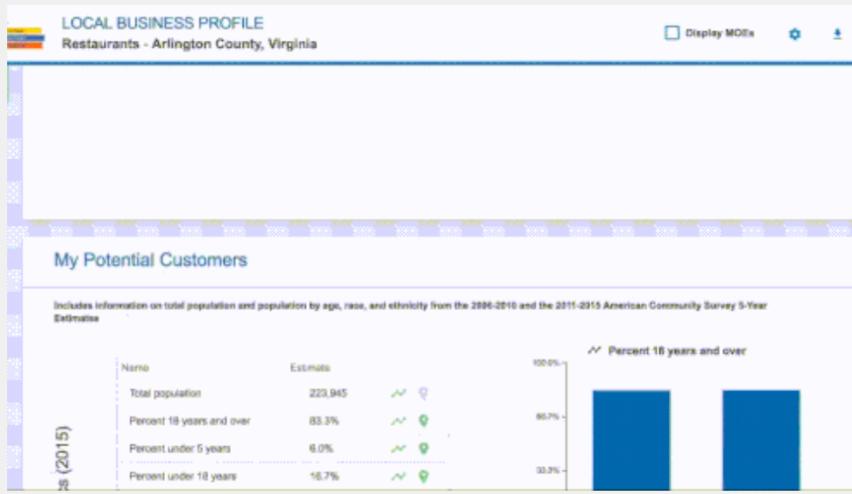
USER RESEARCH

QUANTITATIVE ANALYTICS

CONTENT STRATEGY

Build a report to learn more about your industry and your community.

Census Business Builder reports allow you to find data and interactive charts for your business research.



MY NAICS CODE

Don't know your NAICS code?

MY ZIPCODE

FIND MY DATA

Each page was designed with specific goals in mind.

LANDING PAGE GOALS

Quickly communicate value of CBB with interactive, location-specific data

Give industry-specific use cases of relevant Census Bureau data

For Small Businesses

Powerful Data for Your Small Business

Start making data-driven decisions, today.

ACTION

To be successful you need to learn more about your market.
Quickly find the best data about your customers and competitors.

12345

DEMOGRAPHICS

HOUSEHOLD INCOME

Powerful Data for Your Small Business

Start making data-driven decisions, today.

ACTION

Powerful Data for Your Small Business

Start making data-driven decisions, today.

ACTION

ACTION

Finally we developed an MVP using the U.S.
Web Design Standards in a two-week sprint.

HTML/CSS

SASS

JavaScript

JQuery

Gulp

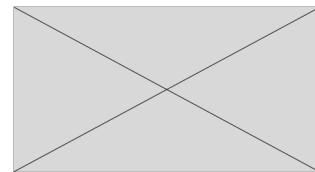
REST API

JSON



Powerful Data for Your Small Business

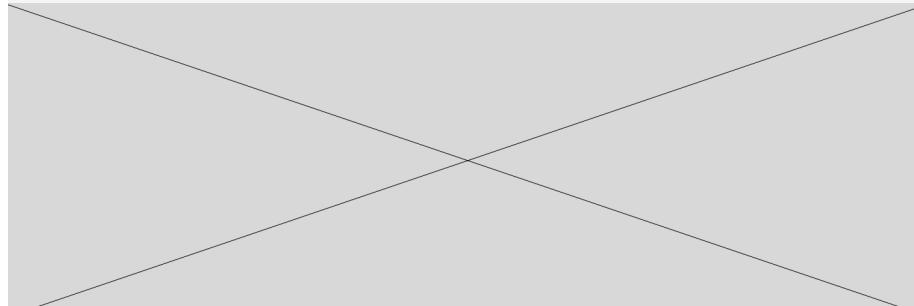
Start making data-driven decisions, today.



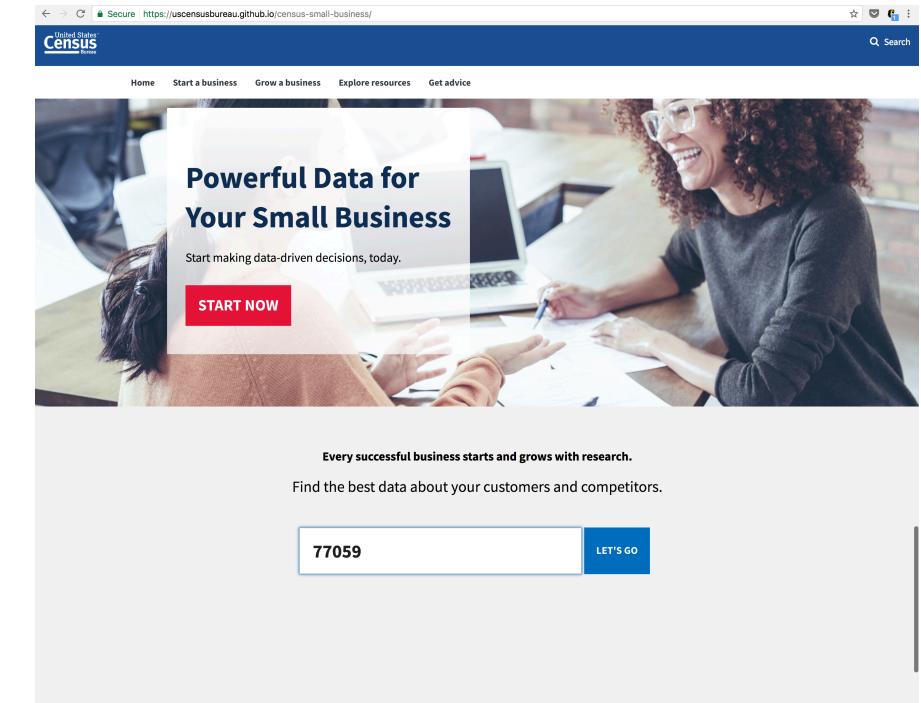
ACTION

To be successful you need to learn more about your market.
Quickly find the best data about your customers and competitors.

12345



DEMOCRAPHICS



The screenshot shows the final MVP web application. At the top, there's a navigation bar with links for Home, Start a business, Grow a business, Explore resources, and Get advice. Below the navigation is a large banner featuring a woman smiling at a desk with a laptop, with the text "Powerful Data for Your Small Business" and a "START NOW" button. A subtext below the banner reads "Every successful business starts and grows with research. Find the best data about your customers and competitors." To the right of the banner is a search bar with the number "77059" and a "LET'S GO" button. At the bottom, a section titled "SHOWING DATA FOR Houston-The Woodlands-Sugar Land, TX Metro Area" displays three cards: "MEDIAN HOUSEHOLD INCOME" (\$128,406), "MEDIAN AGE" (45), and "EMPLOYED INDIVIDUALS" (14,152).

\$128,406

MEDIAN HOUSEHOLD INCOME

Income levels can help you determine what types of goods and services your customers can afford.

45

MEDIAN AGE

This data can help you understand the breakdown of ages in your area.

14,152

EMPLOYED INDIVIDUALS

This data can help you determine what types of goods and services your customers may be interested in.

We learned a lot.

-  Things happen. Your deadlines may change, so flexibility is key.
-  Stakeholders ask for a lot. Find their common ground and build your MVP.
-  Your product will never be perfect. Just get it out there, test it, and do it again.

Thank you!

Lisa Wolfisch

Michele Bartram

Jeff Meisel

Andrew Hait

Francine Krasowska

Bryant Turner

Gregory Henle

Mark Tolbert

The CLMSO Contact Center

Data Dissemination Specialists

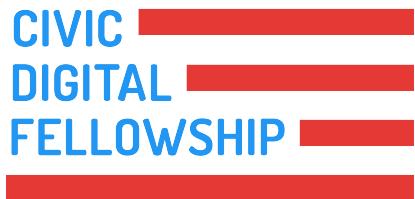
The Public Information Office

Census for Small Businesses

Communications Directorate

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MARIAM BAQAI

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University of Texas at Austin
BHP/Information Systems

RACHEL DODELL

Wellesley College
Media Arts & Sciences

Chris Kuang

Rising sophomore at Harvard College

CIVIC 
DIGITAL 
FELLOWSHIP 


Researched and **wrote** policies regarding internal disclosure avoidance and review.

Learned the importance of ensuring all stakeholders are consulted to ensure policy revisions or additions are effective.

Christian Martindale

Rising junior at Duke University

CIVIC 
DIGITAL 
FELLOWSHIP 




LATEX

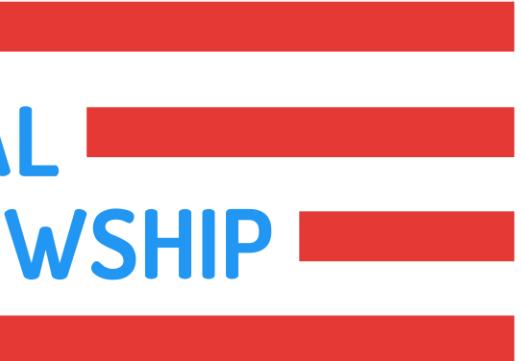
Wrote a research paper detailing an aspect of privacy protection

Learned the importance of ensuring policy keeps pace with technological advances

Meriton Ibrahim

Rising senior at Harvard College

CIVIC
DIGITAL
FELLOWSHIP

Three horizontal red progress bars of decreasing length from left to right, corresponding to the words CIVIC, DIGITAL, and FELLOWSHIP respectively.

Researched methods to produce software that is a part of the disclosure avoidance system for the 2020 Decennial Census

Learned the importance of maintaining privacy while releasing public use data

Angie Pinilla

Master's in Computer Science at Cornell University

CIVIC
DIGITAL
FELLOWSHIP

A series of five horizontal red bars of varying lengths, positioned below the text "CIVIC", "DIGITAL", and "FELLOWSHIP". The first bar is the longest, followed by shorter ones.

Developed a collection of modules to automate data analysis and quantify quality measures.

Learned the effects of privacy protection measures on data accuracy and utility.

Nathaniel Burbank

Master's student at the Harvard School of Engineering and Applied Sciences.

CIVIC 
DIGITAL 
FELLOWSHIP 


Researched and tested methods to augment Census Bureau data by linking with external records.

Learned the potential value of external datasets to supplement Census Bureau data.



MY CONGRESSIONAL DISTRICT

Redesigning the User Experience

Francesca Bueti Stevens Institute of Technology
Lisa Wolfisch Acting Director, Center for New Media & Promotion
Zachary Whitman Chief Data Officer, U.S. Census Bureau

CIVIC ■■■
DIGITAL ■■■
FELLOWSHIP ■■■
■■■■■

DATA-DRIVEN DESIGN APPROACH

Identified user groups



DATA-DRIVEN DESIGN APPROACH

Identified user groups

Conducted user interviews

How do you use data?

Where do you get your data?

What do you do with data?

DATA-DRIVEN DESIGN APPROACH

Identified user groups

Conducted user interviews

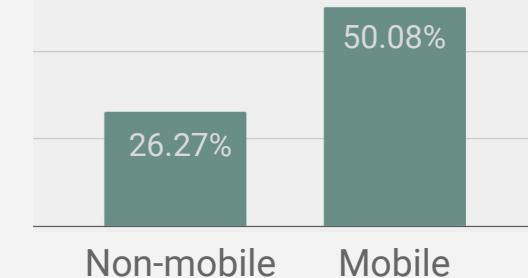
Analyzed Metrics

1 in 5
visits from a
mobile device



June 2016 - 2017

Bounce Rates



Users are **2x** as likely to **bounce** on **mobile**

DATA-DRIVEN DESIGN APPROACH

Identified user groups

Conducted user interviews

Analyzed Metrics

Synthesized Data

*I DOWNLOAD info on my congressional dis...
ONT SIZE IS TOO SMALL FOR PRINT OUT. I w...
e to know what the term "Public Coverage"
eans... I'd like to see added how figures provi...
ed COMPARE regionally and nationally. Is th...
ol to see data from PAST congressional distr...*

DATA-DRIVEN DESIGN APPROACH

- Identified user groups
- Conducted user interviews
- Analyzed Metrics
- Synthesized Data
- Informed Design Decisions



Tell us what you think

My Congressional District

1 Select a State

2

People Workers Housing \$ Socio-Economic Education Business

My Congressional District gives you quick and easy access to selected statistics collected by the U.S. Census Bureau through the [American Community Survey \(ACS\)](#) and [County Business Patterns \(CBP\)](#). The ACS provides detailed demographic, social, economic, and housing statistics every year for the nation's communities. CBP provides annual statistics for businesses with paid employees at a detailed geography and industry level. My Congressional District is powered by ACS and CBP data through the [Census Application Programming Interface \(API\)](#).

Sources: 2015 American Community Survey 1-Year Estimates and 2015 County Business Patterns

? Need help finding your Congressional District?
Enter ZIP code
Window opens in new tab.

United States®
Census
Bureau

POWERED BY
The American Community Survey and County Business Patterns

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

Current Version from census.gov/mycd

Tell us what you think



115th Congress

My Congressional District

1 Select a State

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York

2

?

People Workers Housing \$ Socio-Economic Education Business

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Sources: 2015 American Community Survey 1-Year Estimates and 2015 County Business Patterns

County Business Patterns

Current Version from census.gov/mycd

Tell us what you think



My Congressional District

1 New York

2 Select a District

- Congressional District 1
- Congressional District 2
- Congressional District 3
- Congressional District 4
- Congressional District 5
- Congressional District 6
- Congressional District 7
- Congressional District 8
- Congressional District 9
- Congressional District 10
- Congressional District 11
- Congressional District 12
- Congressional District 13
- Congressional District 14
- Congressional District 15
- Congressional District 16
- Congressional District 17**
- Congressional District 18
- Congressional District 19
- Congressional District 20
- Congressional District 21
- Congressional District 22
- Congressional District 23
- Congressional District 24
- Congressional District 25
- Congressional District 26
- Congressional District 27

People Workers Housing \$ Socio-Economic Education Business

My Congressional District gives you quick and easy access to selected statistics collected by the U.S. Census Bureau through the [American Community Survey \(ACS\)](#) and [County Business Patterns \(CBP\)](#). The ACS provides detailed demographic, social, economic, and housing statistics every year for the nation's communities. CBP provides annual statistics for businesses with paid employees at a detailed geography and industry level. My Congressional District is powered by ACS and CBP data through the [Census Application Programming Interface \(API\)](#).

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County Business Patterns

Current Version from census.gov/mycd

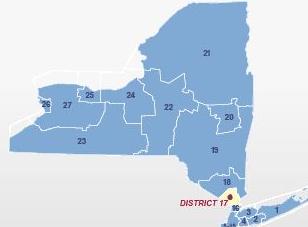
Tell us what you think



My Congressional District

1 New York

2 Congressional District 17



Need help finding your Congressional District?
Enter ZIP code GO
Window opens in new tab.

Congressional District 17, New York	
Source: 2015 American Community Survey 1-Year Estimates	
Sex and Age	Estimate
Total population	742,551
Male	365,104
Female	377,447
Under 5 years	46,241
5 to 9 years	49,458
10 to 14 years	52,413
15 to 19 years	51,770
20 to 24 years	48,041
25 to 34 years	86,963
35 to 44 years	88,483
45 to 54 years	106,456
55 to 59 years	54,649
60 to 64 years	44,745
65 to 74 years	61,095
75 to 84 years	34,547
85 years and over	17,800

Display ACS Margin of Error

 Download and Share

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Economics and Statistics Administration
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census.gov

The American Community Survey and County Business Patterns

Current Version from census.gov/mycd

Tell us what you think



My Congressional District

1 New York

2 Congressional District 17



Need help finding your Congressional District?
Enter ZIP code

Window opens in new tab.

Congressional District 17, New York
Source: 2015 American Community Survey 1-Year Estimates

Employment Status	Estimate
Population 16 years and over	581,668
In labor force	384,800
Civilian labor force	384,646
Employed	361,090
Unemployed	23,556
Armed Forces	154
Not in labor force	196,868
Civilian labor force	384,646
Unemployment Rate	6.1%

Commuting to Work	Estimate
Workers 16 years and over	353,571
Car, truck, or van -- drove alone	232,680
Car, truck, or van -- carpooled	33,318
Public transportation (excluding taxicab)	46,051
Walked	17,761

Display ACS Margin of Error

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The American Community Survey and County Business Patterns

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Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

Current Version from census.gov/mycd

Tell us what you think



115th Congress

My Congressional District

1 New York

2 Congressional District 17



DISTRICT 17

Need help finding your Congressional District?
Enter ZIP code GO
Window opens in new tab.

Congressional District 17, New York
Source: 2015 American Community Survey 1-Year Estimates

Housing Occupancy	Estimate
Total housing units	262,202
Occupied housing units	245,245
Vacant housing units	16,957
Homeowner vacancy rate	2.4%
Rental vacancy rate	3.3%

Housing Tenure	Estimate
Occupied housing units	245,245
Owner-occupied	160,460
Renter-occupied	84,785
Average household size of owner-occupied unit	2.99
Average household size of renter-occupied unit	2.84

Year Householder Moved into Unit	Estimate
Occupied housing units	245,245
Moved in 2015 or later	11,738
Moved in 2010 to 2014	73,061

Display ACS Margin of Error

 Download  Share

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The American Community Survey and County Business Patterns

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

Current Version from census.gov/mycd

Intuitive, Geographically-Focused Interface.

United States Census Bureau

Search for your Congressional District

Use your Current Location

+

-

Source: U.S. Census Bureau

Intuitive, Geographically-Focused Interface.

The screenshot displays a mobile application interface for the United States Census Bureau. At the top is a dark blue header bar with the "United States Census Bureau" logo. Below the header is a white search bar containing a magnifying glass icon and the text "New York". A thin horizontal line separates the search bar from the main content area. The content area contains three list items, each with a thin horizontal line above and below it: "Congressional District 17, New York", "Congressional District 16, New York", and "Congressional District 15, New York". Below this list is a grayscale map of the United States showing state boundaries and county outlines. In the bottom right corner of the map area, there is a small rectangular box containing the text "Source: U.S. Census Bureau".

United States Census Bureau

New York

Congressional District 17, New York

Congressional District 16, New York

Congressional District 15, New York

Source: U.S. Census Bureau

Accessibility | Information Quality | FOIA | Data Protection and Privacy Policy | U.S. Department of Commerce | Release Notes | FAQs

Intuitive, Geographically-Focused Interface.

The screenshot displays a map of New York State, specifically highlighting Congressional District 17. The district is outlined in blue and overlaid on a grey background map. A search bar at the top left shows "New York". A central callout box contains the text "Congressional District 17, New York" and "Congressional District 17 of New York is represented by [Nita M. Lowey](#)". A "Learn More" button is also present in the callout. In the bottom right corner of the map area, there is a small box stating "Source: U.S. Census Bureau". The bottom navigation bar includes links for Accessibility, Information Quality, FOIA, Data Protection and Privacy Policy, U.S. Department of Commerce, Release Notes, and FAQs.

United States Census Bureau

New York

Congressional District 17, New York

Congressional District 17 of New York is represented by [Nita M. Lowey](#)

Learn More

Source: U.S. Census Bureau

Accessibility | Information Quality | FOIA | Data Protection and Privacy Policy | U.S. Department of Commerce | Release Notes | FAQs

Comprehensive Profile View of Congressional Districts

United States Census Bureau

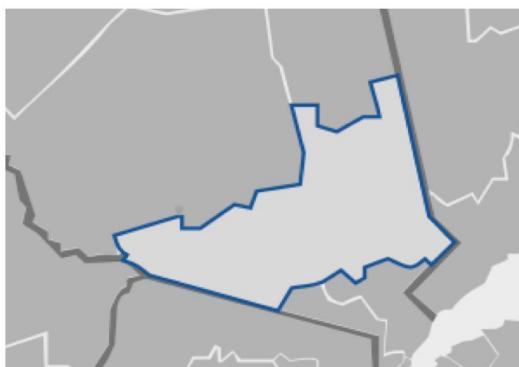
Q New York Congressional District 17

Congressional District 17, New York

Representation

Congressional District 17 of New York is represented by [Nita M. Lowey](#).

[Download](#) [Print](#)



 742,551 POPULATION	 \$66,262 MEDIAN HOUSEHOLD INCOME	 11.2% POVERTY RATE	 60.7% EMPLOYMENT RATE	 37.0% BACHELOR'S DEGREE OR HIGHER
--	--	--	---	---

People **Workers** **Housing** **Socio-Economic** **Education** **Business**

Comprehensive Profile View of Congressional Districts

United States Census Bureau

Q New York Congressional District 17

People Workers Housing Socio-Economic Education Business

Sex Age Race Hispanic or Latino Race Place of Birth Ancestry Veteran Status Disability Status of the Civilian Noninstitutionalized Population Residence 1 Year Ago

Sex

Individuals were asked to mark either "male" or "female" to indicate their biological sex.

[Learn more.](#)

[Compare](#) [Share / Export](#)

Sex in Congressional District 17, New York

Sex	Count	Percentage
Male	10,293	51.3%
Female	9,993	48.7%

Margin of Error

Source: 2015 American Community Survey 1-Year

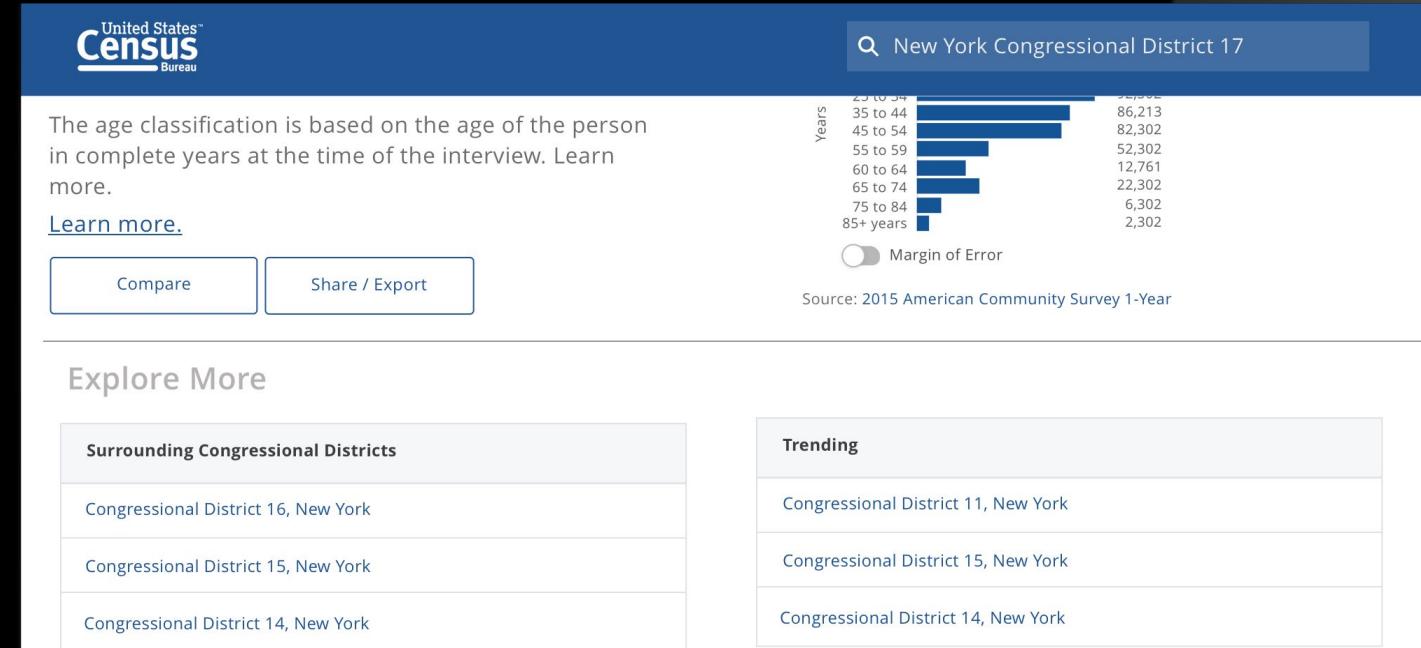
Age

The age classification is based on the age of the person in complete years at the time of the interview. Learn more.

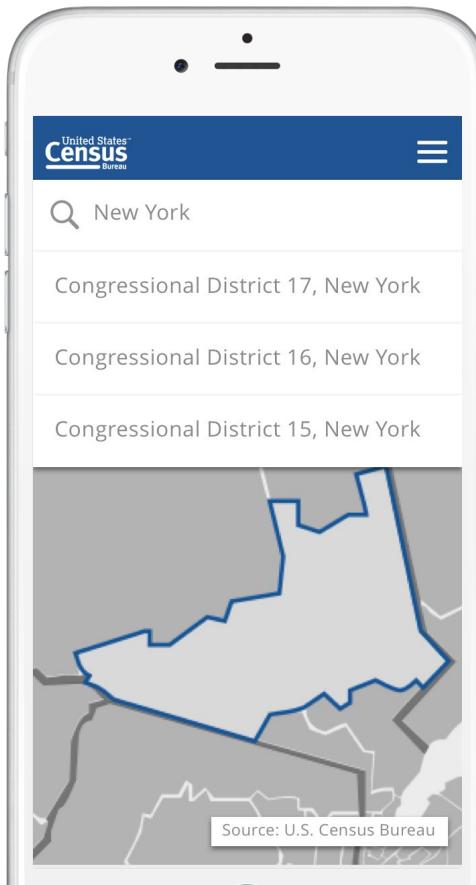
Age in Congressional District 17, New York

Age Group	Count
Under 5	54,761
5 to 9	52,302
10 to 14	62,302
15 to 19	64,761
20 to 24	67,302
25 to 34	92,302

Comprehensive Profile View of Congressional Districts



Designed with a mobile-first approach.



Thank you.

Census Academy

A “Khan Academy” for Census Data

CIVIC ■■■■■
DIGITAL ■■■■■
FELLOWSHIP ■■■■■

Neel Mehta

Computer Science @ Harvard University

Product Manager & Civic Digital Fellow

United States Census Bureau

Mentor: Jeff Meisel, CLMSO

Census has tons of interesting data...



People



Places



Economy

...and a big staff that trains customers

30+

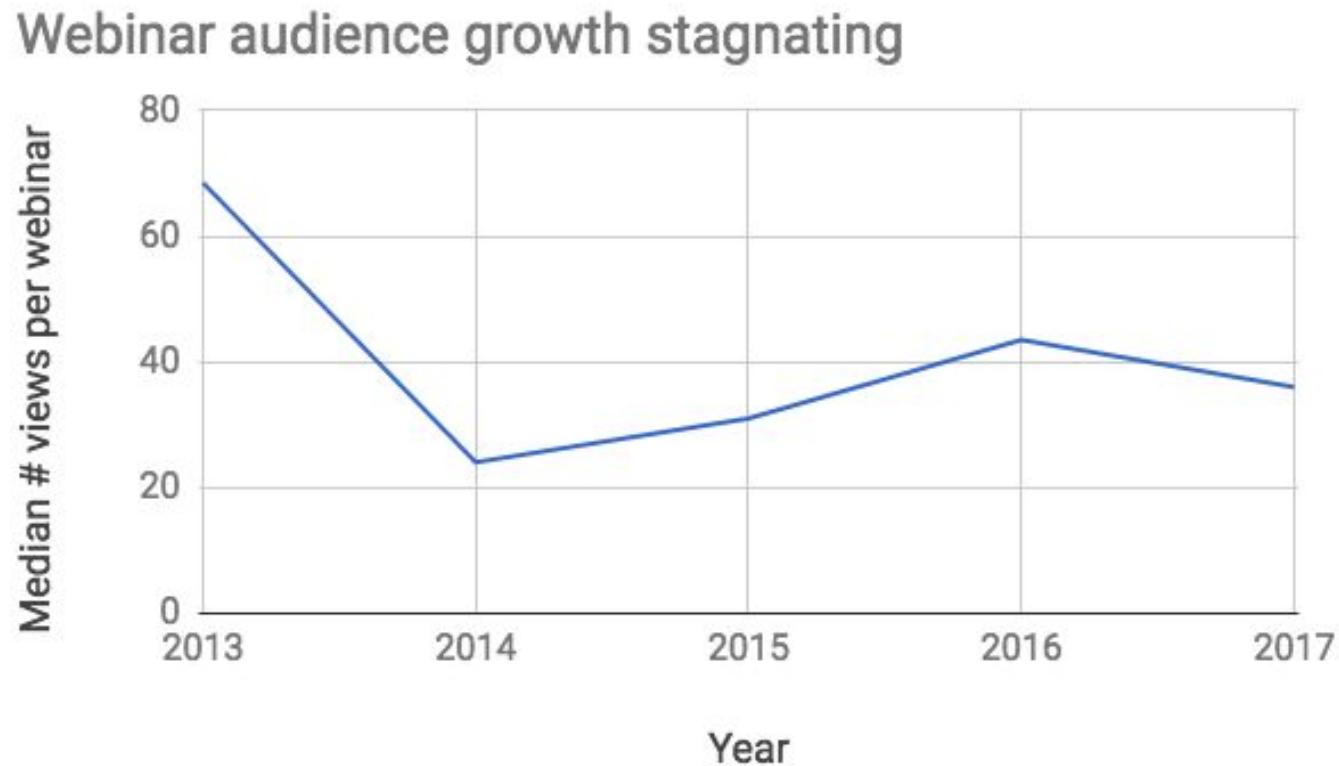
Training Specialists and Data Dissemination Specialists

The Problem

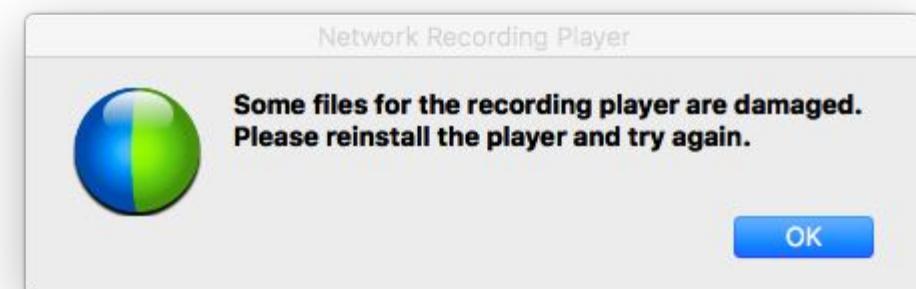
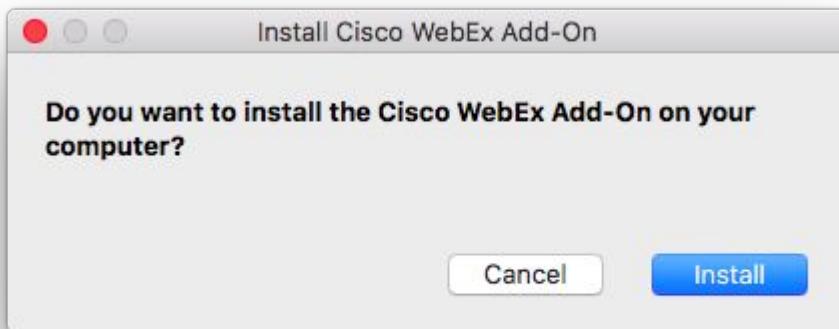
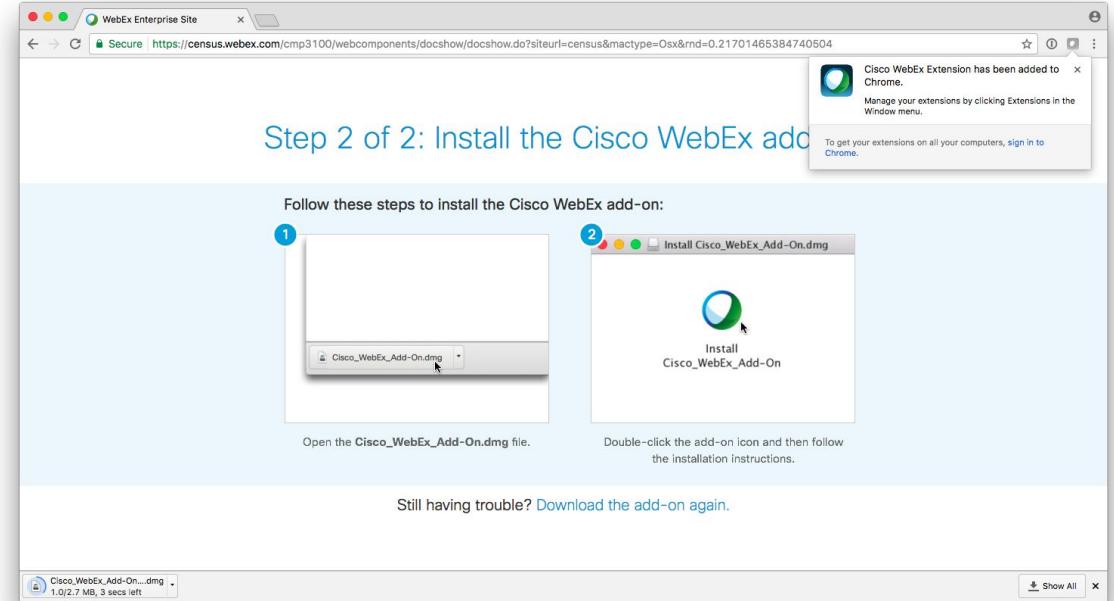
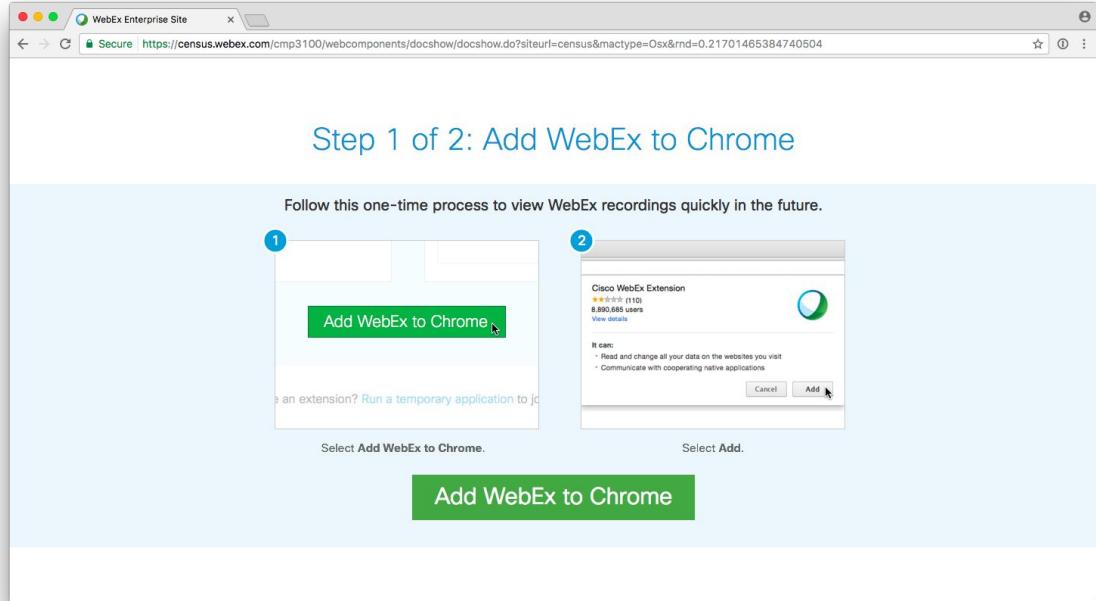
Trainers' bread & butter is hour-long webinars...



But webinars aren't engaging enough



It takes 11 clicks to view a webinar



We ask users to join the mailing list

The screenshot shows the Census Bureau's website for Educational Resources. A red box highlights the "Stay Connected" sidebar on the left, which contains an input field for an email address and a blue "Subscribe" button.

United States Census Bureau

Topics Population, Economy Geography Maps, Products Library Infographics, Publications Data Tools, Developers Surveys/Programs Respond, Survey Data Newsroom News, Blogs About Us Our Research

You are here: [Census.gov](#) > Educational Resources

Educational Resources

Main | Recent Webinars | Recorded Webinars | Training Resources | FAQs | Contact Us

Training Opportunities

We Can Help You!

Let us show you how to find and use Census data for your everyday uses, including informing your business planning, supporting grant proposals and research projects, planning of local schools and hospitals, and much more! Whether you're looking for economic or demographic data, we can teach you how to get what you need for your various projects.

Options for Learning

There are three main ways that you can learn to find Census data. And all of it is free!

- Webinars – see the list below for our upcoming webinars. No registration is needed. We also have a network of Data Specialists who can provide training throughout the nation – these webinars require registration.
- Video Tutorials – We have a growing number in our Training Resources Library.
- Classroom Training – We do this when distance and staff resources allow. Often, as an alternative to a classroom training, we can schedule a webinar for you on the topic you're interested in!

Take Advantage of the Data Today!

Upcoming Trainings

Aug 10, 2017 [Data User's Guide to U.S. Census Bureau's Economic Data](#)

Aug 30, 2017 [Introduction to the American Community Survey](#)

Data Tools

- Interactive Maps
- QuickFacts
- American FactFinder
- DataFerrett
- Local Employment Dynamics
- OnTheMap
- Census Business Builder

Related Sites

- American Community Survey
- Economic Indicator Webinars
- 2012 Economic Census
- 2012 Census of Governments
- Statistical Abstract of U.S.
- State Data Center

But we can't capture enough users

5%

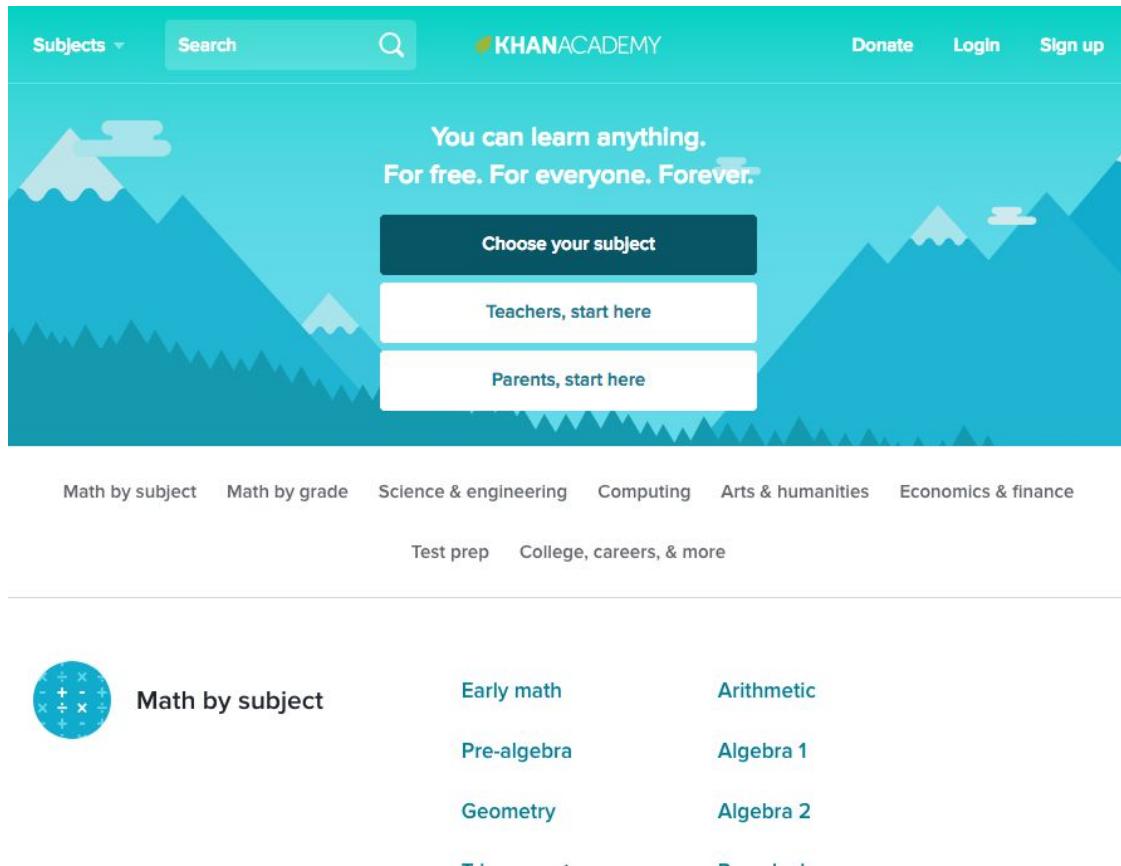
Average percent of website
visitors that join mailing
list (industry average)

0.0012%

Ours.

Our Solution

“Khan Academy” for Census Data



The Khan Academy homepage features a teal background with a mountain landscape illustration. At the top, there are navigation links for "Subjects" (dropdown), "Search" (with a magnifying glass icon), and the "KHANACADEMY" logo. To the right are "Donate", "Login", and "Sign up" buttons. A central message reads: "You can learn anything. For free. For everyone. Forever." Below this are three buttons: "Choose your subject", "Teachers, start here", and "Parents, start here". The footer contains links for "Math by subject", "Math by grade", "Science & engineering", "Computing", "Arts & humanities", "Economics & finance", "Test prep", and "College, careers, & more". A circular icon on the left represents "Math by subject".



The Census Academy homepage has a blue header with the "United States Census Bureau" logo and links for "Courses", "Webinars", and "Contribute". The main content features a man in a white shirt looking at a laptop screen. The text "Census Academy: Free courses on how to use Census data." is displayed prominently. Below it, a subtitle says "Learn how to use data for your business, classroom, research, or other project." A blue button at the bottom right says "Start learning now".

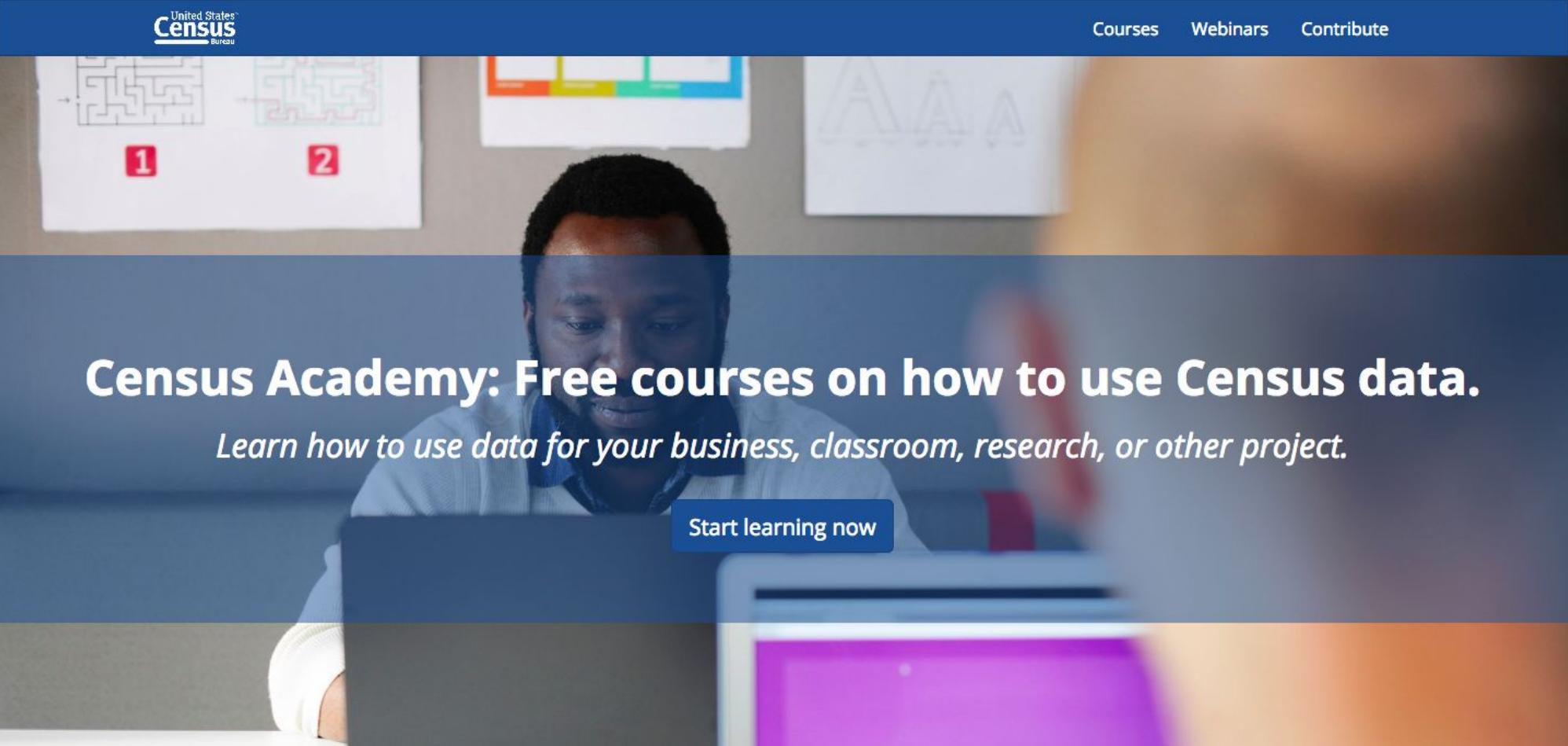
Live demo

<https://uscensusbureau.github.io/census-academy/>



Screenshots

Homepage

The image is a screenshot of the Census Academy homepage. At the top, there is a blue header bar with the "United States Census Bureau" logo on the left and three navigation links ("Courses", "Webinars", "Contribute") on the right. Below the header is a large, semi-transparent overlay image showing a man from the chest up, looking down at a laptop screen. He is wearing a light-colored button-down shirt. In the background, there are several educational materials: a whiteboard with a maze diagram and numbered boxes "1" and "2", a colorful geometric shape puzzle, and a worksheet with the letter "A" repeated. A blue call-to-action button labeled "Start learning now" is positioned in the lower center of the overlay. The overall theme is learning and education.

Courses of 3-10 minute videos

Free Courses from the Census Bureau

Census Data Access and Table Formatting in Excel
with Alexandra Barker



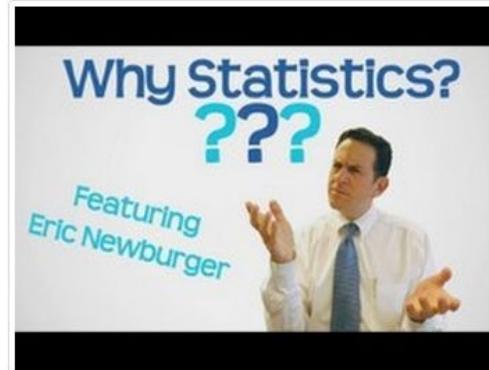
Analyzing Census Data with Excel **Featured**

Watch (2 videos)



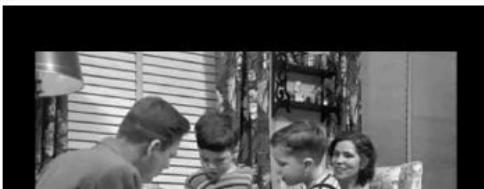
Developing a Data-Driven Small Business Using Census Data

Watch (5 videos)



Intro to Statistics Using Census Data

Watch (7 videos)



Course page



Courses Webinars Contribute

Intro to Statistics Using Census Data

Learn the basics of statistics and data visualization, using examples and teaching from the US Census Bureau.

1. Why Statistics?



Sharing + growth hacking



You've completed the course! Let all your friends and colleagues know.

Share on YouTube

Add to LinkedIn Profile

Share via Email

Want to know when updates to this course or entirely new courses come out? Join the Census's mailing list!

Email address

Sign up

Crowdsourcing course ideas

This screenshot shows a GitHub repository page for the project `uscensusbureau / data-course-ideas`. The repository has 32 commits, 1 branch, 0 releases, and 1 contributor. The latest commit was made a day ago. There are 1 issue and 0 pull requests. The repository is public and has 2 watchers, 1 star, and 0 forks.

Submit your ideas for data training courses on Census Academy <https://uscensusbureau.github.io/cens...>

Branch: master ▾ New pull request Create new file Upload files Find file Clone or download ▾

File	Description	Time
<code>courses</code>	try updating the contributing doc	7 days ago
<code>.gitignore</code>	add gitignore	15 days ago
<code>CONTRIBUTING.md</code>	Add option of giving own link	7 days ago
<code>ISSUE_TEMPLATE.md</code>	add example	7 days ago
<code>README.md</code>	Tweaks	a day ago
<code>_config.yml</code>	Set theme jekyll-theme-merlot	a day ago

Upcoming webinars



Courses Webinars Contribute

Upcoming Webinars

Want to get updates when these webinars are going to start, and when new webinars are announced? Join the Census's mailing list!

Email address

Sign up

Mon Aug

7

11:00am ET

A Comparison of New and Established Benchmarking Methods

[Learn more](#)

[Join the Census's mailing list](#) to get notified when this webinar is about to happen!

Mon Aug

7

1:30pm ET

Wavelet Benchmarking and Seasonal Adjustment Some Theory and Some Results

[Learn more](#)

[Join the Census's mailing list](#) to get notified when this webinar is about to happen!

Past webinar library

Past Webinars

Here's a selection of a few free webinars that the Census Bureau has run. For more webinars, see our [old website](#). We also encourage checking out our library of free data training courses for fresh, well-organized videos.



export

ACE AESDirect Demonstration

How to use key features in the Automated Export System, including creating electronic export information, using shipment templates and party profiles, and using the new shipment manager features.



Recording



Transcript

AES 101: Overview of the Automated Export System (AES)

Experts from the Census Bureau's Foreign Trade Division explain how to use the AESDirect app to report the goods you've exported.



Recording

Accessing International Trade Data



Recording



Transcript

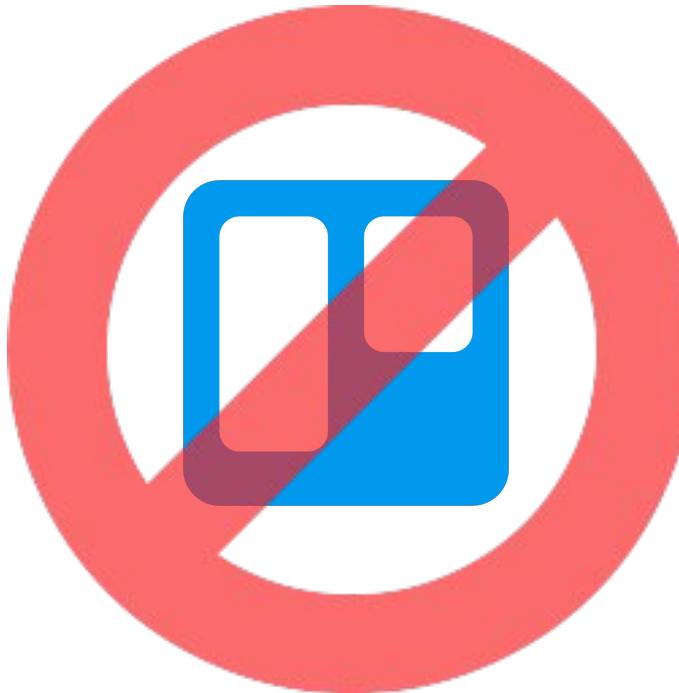


Slides

Takeaways: Agile Product Management in a Non-Agile World

Product management is tough...

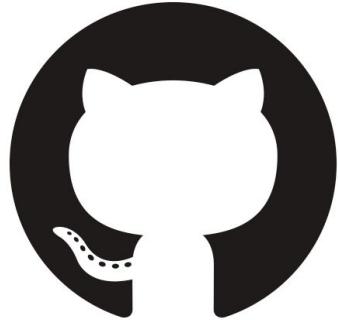
Especially when the top tools aren't used



Bureaucracy Hack #1: Find your champions

- Data Dissemination Branch
- Education + Training Branch
- Center for New Media + Promotion

Hack #2: Build in the open



- Code
- Docs
- Bugs

Hack #3: Keep it simple

Stack



Adobe
Experience
Manager



GitHub Pages

Time to first deploy (est.)

2 months

6-12 months

15 min.

Thanks!

- Jeff Meisel
- Alexandra Barker
- Adam Heckman (Microsoft)
- Tomas Encarnacion
- Zach Whitman
- Karen Poole
- Deb Rivera
- Greg Pewett
- Mike Morgan + video studio
- Education and Training Branch
- Data Dissemination Branch

Extra slides

Webinars: low “bang for the buck”

36

Median # viewers per
webinar, 2013-17

3 weeks

Average time it takes to
produce a webinar start to
finish (from user interviews)

What's next

1. Hand off to internal champions
2. Implement prototype in CMS
3. Build course pipeline

Prototyping Census Partnerships



Julia Lindpaintner
8 August 2017

The team, Open Innovation, and the value of prototyping

Census Open Innovation Labs



Kyla Fullenwider

CHIEF INNOVATION OFFICER



Mara Abrams

COIL MANAGING DIRECTOR



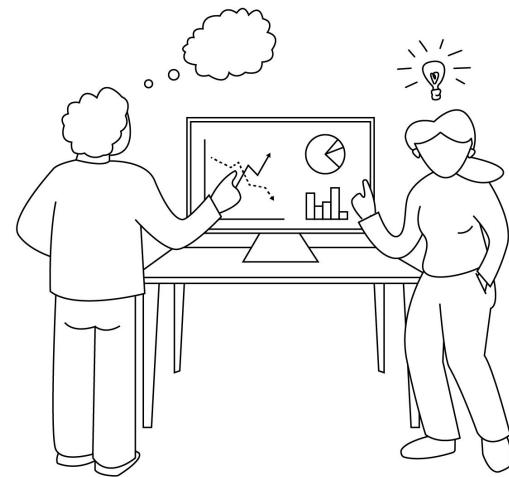
Lorena Molina-Irizarry

NATIONAL PARTNERSHIPS

What is Open Innovation?

Open Innovation can be broadly defined as the process by which an organization seeks ideas and expertise outside its own walls.

To address the complex and crosscutting challenges facing the federal government, agencies need to effectively engage and collaborate with those in the private, nonprofit, and academic sectors, other levels of government, and citizens.



Open Innovation Strategies used by Federal Agencies

Crowdsourcing & Citizen Science

In crowdsourcing, agencies submit an open call, generally through the Internet, for voluntary assistance from a large group of individuals to complete defined tasks. Similarly, in citizen science, participants assist with science-related tasks, such as collecting and analyzing data, and interpreting and reporting results.

Idea Generation (Ideation)

Agencies ask participants to submit ideas to address a specific issue or problem, and may allow them to comment on ideas submitted by other participants, and vote to express their support for an idea.

Open Data Collaboration

Agencies mobilize participants to share, explore, and analyze publicly-available data sets, and use the data to conduct research, design data visualizations, or create web and mobile applications and websites that help people access and use the data.

Open Dialogue

Agencies collect and respond to information, observations, and perspectives from a range of citizens, experts, and stakeholders. They can do this using online tools, such as websites or interactive webinars, and in-person meetings or forums.

Prize Competition or Challenge

Agencies identify a problem to solve or a specific goal it wants to achieve, and ask members of the public to submit potential solutions. The agency evaluates these proposals, and provides a monetary or non-monetary reward to selected winners.

Why prototype?

A prototype is a model—its purpose is to elicit feedback and facilitate iteration.

Rather than talking about ideas in the abstract, prototyping—even on screen—allows users and stakeholders to react rather than hypothesize.

Designers use prototypes to check assumptions, keep conversations concrete, and quickly identify misunderstandings.

Research, insights, and our approach

PROBLEM STATEMENT

How might we bring an Open
Innovation lens to Partnerships?

Research & discovery

We reviewed literature,
reports & recommendations.

- 2010 Evaluation Reports
- Accenture PXP Partner Discovery
- ICF 2010 Evaluation Report
- 2012 CBAMS Report
- 2010 ICP National Partnerships Assessment

We held workshops &
listening sessions.

- Data Dissemination Specialists
- State Data Centers

We spoke with internal &
external stakeholders.

- Field HQ
- Regional Directors
- Partnership staff
- 2020 IPC
- Data Dissemination Staff
- ECON
- R&M
- GEO
- SDC/CICs
- Partners

census.gov

2010 Census: Partner With Us

United States Census 2010
IT'S IN OUR HANDS

2010 Census Home Press & Media Partners > Students & Teachers > Census.gov

OUR PARTNERS MATERIALS

Partners Home Complete Count Committee Guidebook Materials In-Language Materials Partners Research and Tools

Get ADOBE® FLASH® PLAYER

Partners Pushed Participation

During the 2010 Census, over 250,000 partners pulled together to spread the message about the importance of participation in their communities. These trusted voices served as Census ambassadors helping America equal the participation rate from 2000, saving millions of taxpayer dollars. Our quarter million partners ran the spectrum of government, non-profit, corporate and community organizations that spread the message and mobilized their constituents to support the goal of a complete count.

Partner Updates

The U.S. Census Bureau would like to thank the partners who formally pledged their commitment to share the 2010 Census message and mobilized their constituents in support of the Census Bureau's goal to achieve a complete count. Conducting the decennial census is a massive and vitally important undertaking - one in which the Census Bureau could only accomplish with the help and support of its partners.

Include this video on your page.

<object width="640" height=""

Get Flash ▾

U.S. Census Bureau

Home | Contact Us | Product Catalog | Information Quality | Data Tools | Privacy Policy

census.gov

2010 Census: In-Language Fact Sheets, Posters and Key Dates

United States Census 2010
IT'S IN OUR HANDS

2010 Census Home Press & Media Partners > Students & Teachers > Census.gov

OUR PARTNERS MATERIALS

Search Go

Partners Home Complete Count Committee Guidebook Materials In-Language Materials Bilingual Questionnaire Universe/ Maps Direct Mail Postcard Universe Fact Sheets, Posters and Key Dates Take 10 Turnkey Kits Partners Research and Tools

Get ADOBE® FLASH® PLAYER

In-Language Fact Sheets, Posters and Key Dates

Get e-mail updates when this information changes.

Arabic/ عربى	Greek/ ελληνικός	Korean/ 한국어	Tagalog/ Tagalog
Armenian/ Հայերեն	Haitian Creole/ Kreyòl	Laotian/ ລາວພາສາ	Thai/ ไทย
Bengali/ বাংলা	Ayisyan	Polish/ Polski	Ukrainian/ Український
Chinese/ 中文	Hindi/ हिन्दी	Portuguese/ Português	Urdu/ اردو
Farsi/ فارسی	Hmong/ Hmoob	Puerto Rico	Vietnamese/ Tiếng Việt
French/ Français	Italian/ Italiano	Russian/ Русский	Yiddish/ ייִדיש
German/ Deutsch	Japanese/ 日本語	Spanish/ Español	
	Khmer/ Cambodian		

Arabic

Document	Description	Format	Language/Audience
	General Fact Sheet Provides general facts and frequently asked questions about the 2010 Census as well as the broad benefits of partnership; relevant to all audiences.	PDF 3.3 MB	Arabic/ عربى
	Community-Based Fact Sheet Provides information relevant to community-based organizations, including specific facts and frequently asked questions about the 2010 Census and the benefits of partnership.	PDF 2.2 MB	Arabic/ عربى



我們需要把您算進來!

请记住您的2010年人口普查表。可抵扣的红利金额可能高达\$4,000美元！小学教育的部分
是所有家庭收入的11%。回答10个问题，帮助我们了解您的家庭，从而改善我们的学校、医疗保健、基础设施等。
● 2010年人口普查表将于3月开始发放。

Censo 2010
PUERTO RICO
ESTADOS UNIDOS

填好并寄回。
波多黎各需要您。回答10个简单的问题，
帮助我们改善学校、医院、道路等。
CON EL CENSO AVANZAMOS TODOS

Censo 2010
Puerto Rico
ESTADOS UNIDOS

一羽の鶴を折る程度の時間で、
私たちのコミュニティーの
向上に役立てます。

必ず郵便封筒を送り返し下さい。

Censo 2010
PUERTO RICO
ESTADOS UNIDOS

Tus manos definen quiénes somos como pueblo

Y ahora, con tus manos, puedes ayudar a
crear un mejor futuro para Puerto Rico.

10 preguntas en 10 minutos hacen la diferencia.
El Censo llega en marzo del 2010. Al contestar diez preguntas ayudarás a mejorar
tu comunidad local, selecciona tu respuesta, llena y envíala por Puerto Rico.
Con el Censo nos movemos hacia adelante.

Censo 2010
Puerto Rico
ESTADOS UNIDOS

私たちコミュニティーの 向上の願いをこめて。

私たちの願い（10年間かかる）は2010年の米国国勢調査に託すことです。あなたの手で記入された郵便封筒を郵便局へお送りください。それが私たちコミュニティーの向上の願い、文教の充実、医療、まちづくりサービスの改善など、毎日の生活を豊かにするために各々の家庭が達成されますので、10秒程度で簡単な回答をおこなってください。

● 2010年米国国勢調査は3月に開始します。

Censo 2010
Puerto Rico
ESTADOS UNIDOS



Tu participación en el Censo 2010 es fácil, importante y segura. Por ley tus respuestas y la información que proporcionas no se puede usar en tu contra ni se puede compartir con nadie, ni siquiera agencias federales y del orden público.

CON EL CENSO AVANZAMOS TODOS

**Censo
2010**
Puerto Rico
ESTÁ EN NUESTRAS MANOS
D-2010-PRD

**2010 Census
Censo 2010**

This is the official form for all the people in this address. It's quick and easy, and you can do it online!

**আপনার ভিসার মেয়াদ যাইই থাকুক
না কেন, আপনার 2010 সালের
সেক্সস সম্পর্কিত তথ্য সুরক্ষিত**

2010 年美国人口普查表

2010 সালের সেক্সস ফর্মের উপর নেওয়া আপনার গুরুত্বপূর্ণ জন্ম ও জীবনশৈলী।

2010年美國人口普查表格

2010 সালের সেক্সস ফর্মের উপর নেওয়া আপনার গুরুত্বপূর্ণ জন্ম ও জীবনশৈলী।

**JESTEM PEWIEŃ!
NASZE ODPOWIĘDZI SĄ CHRONIONE PRAWEM!**

Wasza odpowiedź chroni prawo!

Wyzyczyszczenie spisów przeprowadzanych ma zakaz udostępniania danych osobowych komukkolwiek, w tym innym agencjom federalnym oraz organom ścigania. Wyzyczyszczenie spisów obyczajowe ma zakaz udostępniania danych osobowych komukkolwiek, w tym innym agencjom federalnym oraz organom ścigania.

Uczestniczenie w Spisie Powszechnym jest łatwe, ważne i bezpieczne!

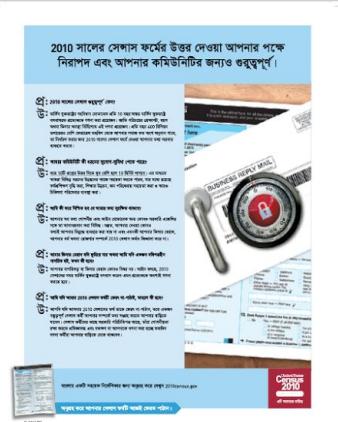
Uczestniczenie w Spisie Powszechnym 2010 jest łatwe, ważne i bezpieczne, a odpowiedzi respondentów nie mogą być ujawnione lub użyte przeszkołowo.

10 pytań • 10 minut!

Jeden z najdłuższych w historii, formularz Spisu Powszechnego 2010 składa się z 10 pytań, na których udzielanie odpowiedzi zajmuje 10 minut.

Załączony nam na załączniku potrzebujesz Twojej spółwiedni, nowej lub twój osobiestwo. 2010CENSUS.GOV

**ZROBIĆ KROK DO PRZEDNI
PO UZYSKANIU TRÓCHI ODPOWIĘDZI**

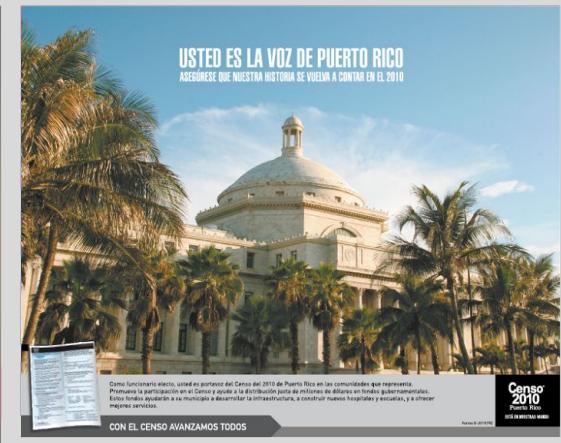


**الإحصاء السكاني يسعى لتلبية احتياجات مجتمعكم
وليس للحصول على معلوماتكم الشخصية**

- القانون يحمي جريجوري
- يقيادات الأنسان سرية، و يتم توقيعها على أي منظمة قانونية أخرى
- ليست هناك أسلمة من المرض القانوني بما يقل بالمهمة



2010CENSUS.GOV



census.gov

2010 Census: Research and Tools

United States Census 2010
IT'S IN OUR HANDS

2010 Census Home Press & Media Partners > Students & Teachers > Census.gov

OUR PARTNERS MATERIALS

Search Go

Partners Home Complete Count Committee Guidebook Materials In-Language Materials Partners Research and Tools

Get ADOBE® FLASH® PLAYER

Research

Audience Segmentation Research

- Segmenting the Population for the Census 2010 Integrated Communications Campaign [PDF-3MB]
- Audience Segmentation for the Census 2010 Communications Campaign: Findings from the 2008 Dress Rehearsal [PDF-184K]
- 2010 Census AIAN Audience Segmentation and Evaluation [PDF-3MB]
- Predicting Return on Investment Across Population Segments in a Social Marketing Campaign [PDF-1MB]
- Census Barriers, Attitudes and Motivators Survey (CBAMS) Methodology Report [PDF-8MB]
- Messaging to America: Census Barriers, Attitudes and Motivators Survey Results [PDF-4MB]
- Census Barriers, Attitudes and Motivators Survey Analytic Report [PDF-14MB]
- Using the American Community Survey to Validate and Enhance Population Segmentation for the Census 2010 Integrated Communications Campaign [PDF-4MB]
- 2010 Census Communications Campaign Creative Copy Testing Summary of Results [PDF-1MB]
- 2010 Census Communications Campaign Creative Copy Testing (Phase 1) Final

Get e-mail updates when this information changes.

ATTENTION 2010 PLANNING DATABASE USERS:

The 2010 Enhanced Planning Database tool has been removed from the 2010 Census website. The data items contained in the 2010 Enhanced Planning Database are instead available upon request. Please contact the Customer Liaison and Marketing Services Office (CLMSO) at 301-763-4676. You may also contact Erin Love at 301-763-2034.

Census 2000 Planning Database

Demographics correlated with 2000 mail non-response rates

- Introduction and Documentation [PDF-353K]
- Data tables [XLS-50MB]

Communications Campaign Plan and Synopsis

- 2010 Census Integrated Communications Campaign Plan: The Success Of The Census Is In Our Hands [PDF-11MB]
- 2010 Census Integrated Communications Campaign Plan (Synopsis) [PDF-4MB]

Mail Back Participation Rates

Published Daily Rates from March 25 through April 27. DAT files.

Partnership Principles for a Changing World



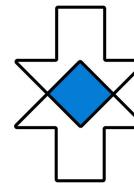
AGILITY AND ADAPTIVENESS

The world is changing fast—we need to build a program that can keep up.



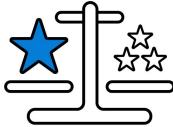
PARTNERS AS SUBJECT MATTER EXPERTS

Partners know what's best—let's put their expertise to work.



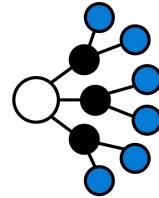
BOTTOM-UP AND TOP-DOWN INTEGRATION

One integrated Partnership Program is essential for decreasing costs, increasing efficiency, and improving efficacy.



QUALITY OVER QUANTITY

Metrics and evidence-based practices will increase efficiency and decrease costs.



ONE TO MANY; MANY TO MORE

Create a Network Effect that allows us to scale quickly and inexpensively.

Three goals

1

Make it user-centered

- Give partners the information they need, when they need it

2

Make it evidence-based

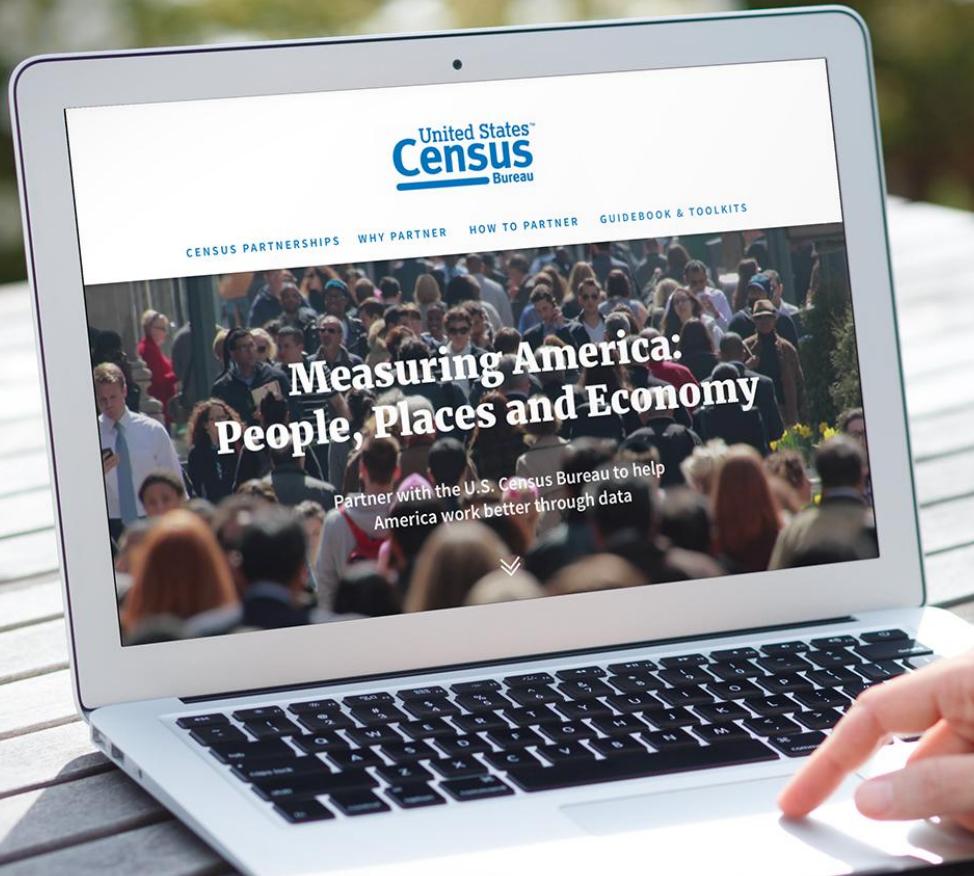
- Harness behavioral insights through partnership with the Office of Evaluation Sciences
- Conduct user research to validate new outreach methods

3

Make it iterative

- Plan for an agile, adaptable partner effort in the future

Make it user-centered: A splash page for Census partnerships



census.gov

Census Partnerships

CENSUS PARTNERSHIPS WHY PARTNER HOW TO PARTNER CONTACT

MAKE THE MOST OF CENSUS BUREAU DATA



The Census Bureau is America's leading source of quality data about the nation's people, places, and economy. Whether you're a business, school, nonprofit, or government, we'll work with you to find new and innovative ways to partner.

census.gov

Census Partnerships

CENSUS PARTNERSHIPS WHY PARTNER HOW TO PARTNER CONTACT



Drive participation

Ensure your constituents, customers, and stakeholders are represented in vital Census Bureau household and business surveys.

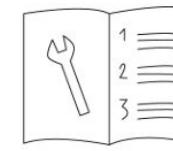
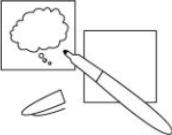
Make our data work for you

Create valuable new tools that improve business, policy, and American lives.

census.gov

Census Partnerships

CENSUS PARTNERSHIPS WHY PARTNER HOW TO PARTNER CONTACT



Host a workshop

Inquire about joining or hosting workshops to forge cross-sector collaboration, identify solutions, and engage participants around the 2020 Decennial Census, American Community Survey, and 2018 Economic Census, among others.

Share your ideas

Help us make the Census Bureau work for you. Submit your ideas for hosting events, creating content, or bringing the Census to the people and people to the Census.

Use our tools

Coming Fall 2017!

We are assembling best practices and tools to help you increase participation in Census Bureau surveys.

GET IN TOUCH

Make it evidence-based: Partner toolkits for Census and beyond

Outreach is not one-size-fits-all

Harness behavioral science to tailor
audience outreach strategies.

We partnered with the Office of Evaluation Sciences to put
together audience-specific recommendations to overcome
some of the biggest barriers to census participation

• • ◀ ▶ □

oes.gsa.gov

An official website of the United States government [Here's how you know](#)

Office of Evaluation Sciences

OES Office of Evaluation Sciences

About Approach Work Team Collaborate Join

We believe government works best when it's built for people.

Learn more

25

docs.google.com

OES COIL Guidebook Content Draft - Google Docs

File Edit View Insert Format Tools Table Add-ons Help Last edit was 3 days ago

L Comments Share

Outline X

additional questions and initial ways to get started are provided.

Questions to Ask to Design Your Campaign

First, update and tailor the communication materials.

- **What message will resonate with the people you serve? You can test these out with real people!**
- **Who should connect with them?**

Next, develop delivery mechanisms and outreach activities.

- **How can you connect with your audience?**
- **When should you connect with your audience?**

What barrier do people describe?	Description	What messages will resonate?	Who should connect?	How could you connect?	When should you connect?
"I'm not taking the Census because I don't trust the government."	I am This audience is unsure of how Census data is used and stored. - Could it be passed onto other government agencies and used against me? For example, by Immigration and Customs Enforcement? How is my privacy protected? Is Big Brother watching me?	Provide social proof. People are more likely to do something if they think it is normal and everyone else is also participating, doing it. This is called "social proof" in social psychology. For example, emphasize the fact that most people complete the Census with	Social influence matters. Find a person they trust to deliver delivering the message. It may be better to choose someone who has authenticity or community standing rather than the most well-known person.	This audience may not have a large presence on social media, and is likely to trust in-person interaction.	You should begin to reach out to this audience before the form is live; to help them understand and build understanding of how Census data is managed and used, before they see communication to take the Census and distrust it.

Census engagement is not one-size-fits-all

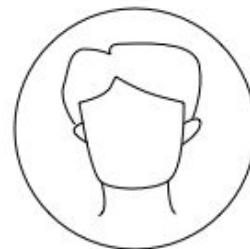
There are a variety of reasons people don't participate in the Census, and tailoring your outreach strategy can make your work much more effective. To help you do this, the team at the [Office of Evaluation Science](#) put together a guide identifying the most common barriers and providing evidence-based outreach approaches to address them.



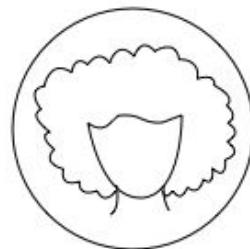
“I don’t think the Census has any impact on my life.”



“I don’t trust the government with my information.”



“I have trouble completing the Census forms.”



“I don’t have time to fill out the Census.”

AUDIENCE OUTREACH

HOW DO I DEAL WITH BEHAVIORAL BIASES?

People don't take the Census for several reasons. The Office of Evaluation Sciences put together this guide to address five common barriers that may be felt by the people served by your organization. These tips will ensure that your communications—about Census or otherwise—are as appropriate and effective as possible!

I WANT TO HELP MY COMMUNITY...

... know their data is safe. — [PAGE 29](#)

... take the census on time. — [PAGE 31](#)

... get their kids counted. — [PAGE 32](#)

... understand how the Census helps them and their community. — [PAGE 34](#)

... read and complete the form. — [PAGE 36](#)

AUDIENCE OUTREACH

WHAT THEY'RE SAYING

"I just don't have time to fill out the Census survey."

WHAT THEY MEAN

"I am a busy person, the Census seems time-consuming, and I never think to do the Census when I can actually get it done."

WHAT WILL RESONATE

Relate the Census to other tasks
Tell them it takes 5 min or less, less time than it takes to make coffee

Offer micro-incentives
Offer them a coupon or something small to make it worth their time

WHO SHOULD CONNECT

Draw on established relationships
Send messages about the Census via communications with which they already engage, such as a newsletter, bank statement, school form, etc.

HOW YOU COULD CONNECT

Reduce the hassle factor
Provide direct links to the form, show them a step-by-step guide of how to complete, etc.

Make a commitment
Making a public commitment increases the chances of participation. Share on social media.

WHEN TO CONNECT

Timed to related activities
Try to get to them when they could do the survey right there and then, rather than having to remember to do it later.

Co-creation, not dissemination

Partners are subject matter experts in their fields;
leverage that expertise and co-create solutions
for Census.

Rather than giving partners a set list of commitments or actions they can take to support the Census, we developed and tested a model that brings together a variety of partners to rapidly come up with solutions of their own.



CENSUS OPEN INNOVATION CHALLENGE LOS ANGELES

Help us count America.

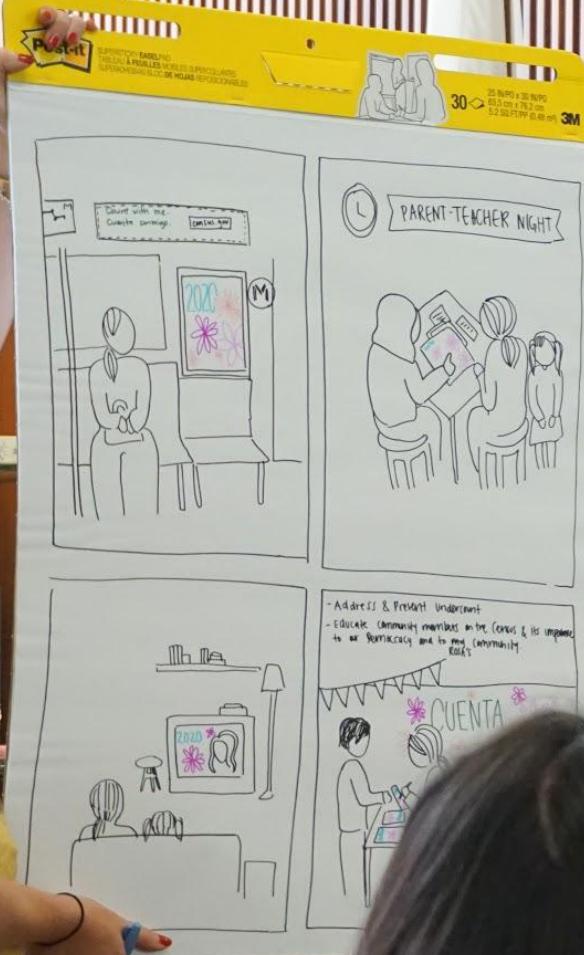


EXIT

ARE YOU A
THIRD
SPACE
THINKER?







RUNNING YOUR OWN POP-UP WORKSHOP

A guide to leading a creative problem-solving session to foster new collaborations and solve census challenges in your community



Contents

1 RATIONALE

Page 04

The rationale behind pop-up workshops:
What they are and how they can help

2 LOGISTICS

Page 11

Planning your pop-up workshop:
Roles, responsibilities, and requirements

3 ACTIVITIES

Page 15

Running a pop-up workshop:
Agendas and activities

4 TAKEAWAYS

Page TK

Following up, maintaining momentum,
and honoring commitments

We're here to help!

Contact us at census.partners@census.gov to let us know
what you're planning and where you need support.

02

2 LOGISTICS

1. Determine the format

- Will it be your own, all-day or half-day event?
- Will it be a shorter session of 1-2 hours as part of or adjacent to a larger event or conference?
- See page TK for sample agendas for each type of event

2. Decide who the host partners will be

- Is this something that your organization would like to take on individually, or would you be better served with additional host partners?
- Who are those who could add additional knowledge, financial or strategic support, technical assistance, physical space, or brand recognition?
- Start conversations early, and be sure to clearly lay out expectations and responsibilities of each host partner.

3. Clarify goals + theme

- What is the problem you're trying to solve?
- Will it be centered around the 2020 Decennial Census, the American Community Survey, the Economic Census, or another data product?
- Are there multiple problems or personas for which you are trying to solve, or would it be more effective to solve one?
- Is there a certain industry or sector you are looking to convene, such as media organizations or city officials? Or is the problem better served by a more diverse or general audience?

3 ACTIVITIES

Persona ideation

DURATION

20–30 minutes

PARTICIPANTS

Groups of 2–4

HANDOUT

Proto-persona worksheet

Persons	Demographics
Person points	Solutions

In the upper right, list a few key demographics to flesh out the persons.
In the lower left, list some pain points/needs/goals for your persona. It's okay if these feel like generic needs or assumptions that you would need to validate.

WHY

In the case of coming up with ways to break down barriers to census participation, this exercise can help participants think more about the things that might stand in someone's way. Rather than think generally of someone who "doesn't trust government," developing a proto-persona will allow solutions to respond to actual needs.

HOW TO DO IT

- Each person/group (depending on the size) gets a large sheet of paper, divide in 4 quadrants.

In the upper left, sketch your persona, give them a name, and identify this person's attitude towards census.

In the upper right, list a few key demographics to flesh out the persons.
In the lower left, list some pain points/needs/goals for your persona. It's okay if these feel like generic needs or assumptions that you would need to validate.

In the lower right, come up with 4 ways to address those pain points/needs/goals. What would help them? Make note of any of the solutions that might be unique or innovative that meet those needs. (You can also use a brainstorming approach to generate a lot of ideas here.)

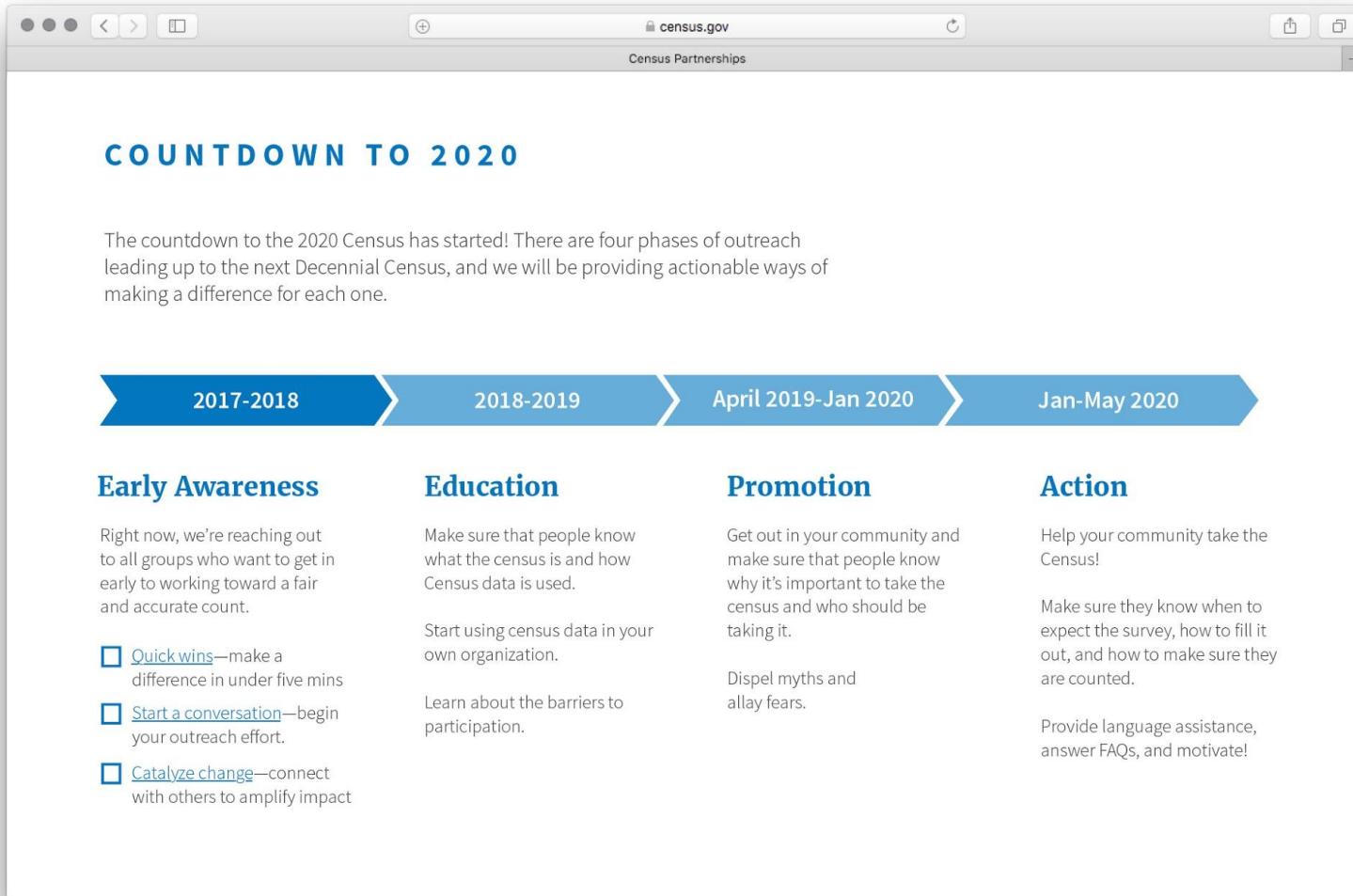
With that exercise complete, move on to brainstorming ways that one could help them overcome whatever barrier stands between the proto-persona and taking the census.



12

23

Make it iterative: An evolving partnership platform

A screenshot of a web browser window. The address bar shows 'census.gov' and the page title is 'Census Partnerships'. The main content area has a white background with a blue header bar at the top. The header bar contains the text 'COUNTDOWN TO 2020' in large blue capital letters. Below the header bar, there is a paragraph of text: 'The countdown to the 2020 Census has started! There are four phases of outreach leading up to the next Decennial Census, and we will be providing actionable ways of making a difference for each one.' Below this text is a horizontal timeline diagram. It consists of four blue chevron-shaped arrows pointing to the right, each containing a phase name. The first arrow contains '2017-2018', the second '2018-2019', the third 'April 2019-Jan 2020', and the fourth 'Jan-May 2020'. Underneath the timeline, there are four columns of text, each corresponding to one of the phases. The first column is titled 'Early Awareness' and describes outreach efforts to reach groups early. It includes three bullet points: 'Quick wins—make a difference in under five mins', 'Start a conversation—begin your outreach effort.', and 'Catalyze change—connect with others to amplify impact'. The second column is titled 'Education' and describes efforts to make sure people know what the census is and how Census data is used. It includes two bullet points: 'Start using census data in your own organization.' and 'Learn about the barriers to participation.' The third column is titled 'Promotion' and describes efforts to get out in the community and dispel myths. It includes two bullet points: 'Get out in your community and make sure that people know why it's important to take the census and who should be taking it.' and 'Dispel myths and allay fears.' The fourth column is titled 'Action' and describes efforts to help communities take the Census. It includes two bullet points: 'Help your community take the Census!' and 'Provide language assistance, answer FAQs, and motivate!'.

COUNTDOWN TO 2020

The countdown to the 2020 Census has started! There are four phases of outreach leading up to the next Decennial Census, and we will be providing actionable ways of making a difference for each one.



Phase	Description
2017-2018	Early Awareness: Reach out to all groups who want to get in early to working toward a fair and accurate count.
2018-2019	Education: Make sure that people know what the census is and how Census data is used.
April 2019-Jan 2020	Promotion: Get out in your community and make sure that people know why it's important to take the census and who should be taking it.
Jan-May 2020	Action: Help your community take the Census!

Early Awareness

Right now, we're reaching out to all groups who want to get in early to working toward a fair and accurate count.

- [Quick wins](#)—make a difference in under five mins
- [Start a conversation](#)—begin your outreach effort.
- [Catalyze change](#)—connect with others to amplify impact

Education

Make sure that people know what the census is and how Census data is used.

- Start using census data in your own organization.
- Learn about the barriers to participation.

Promotion

Get out in your community and make sure that people know why it's important to take the census and who should be taking it.

- Dispel myths and allay fears.

Action

Help your community take the Census!

Make sure they know when to expect the survey, how to fill it out, and how to make sure they are counted.

Provide language assistance, answer FAQs, and motivate!

Desktop Copy 7



Desktop Copy 8



Desktop Copy 6



Desktop Copy 12



Desktop Copy 16



Desktop Copy 10



Desktop Copy 11



Desktop Copy 17



Desktop Copy 13



Desktop Copy 14



Desktop Copy 13



Desktop Copy 14



Desktop Copy 12



Desktop Copy 6



Desktop Copy 9



Desktop Copy 7





A dense crowd of diverse people of various ages and ethnicities, filling the background of the page.

**United States™
Census
Bureau**

[PARTNERSHIPS](#) [GET STARTED](#) [TOOLKITS](#)

Measuring America: People, Places and Economy

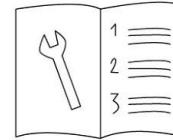
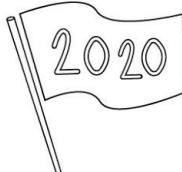
Partner with the U.S. Census Bureau to help
America work better through data

[JOIN THE 2020 EFFORT](#)

census.gov

Census Partnerships

HOW TO PARTNER



Join the 2020 effort

Learn about the census and find out how you can support a fair and accurate count in 2020.

[Get started.](#)

Use our toolkits

We have [evidence-based tools](#) and best practices to help you engage participants in the Census Bureau's surveys.

Share your ideas

[Get in touch](#) to share your ideas for hosting events, creating content, or bringing the Census to the people and people to the Census.

A screenshot of a web browser window showing the United States Census Bureau website. The browser has a light gray header with standard window controls (minimize, maximize, close) and a toolbar with a search field containing 'census.gov' and a refresh button. The main content area has a white header bar with the Census Bureau logo on the left and three navigation links on the right: 'PARTNERSHIPS', 'GET STARTED' (underlined), and 'TOOLKITS'. Below this is a large blue section titled 'Learn' in white. The text in this section discusses the constitutionality of the census and encourages users to learn facts. At the bottom of this blue section are three underlined links: 'Census 101', 'Helping your community', and 'Countdown to 2020'. The footer is a white bar at the bottom of the page.

United States™
Census
Bureau

PARTNERSHIPS GET STARTED TOOLKITS

Learn

Did you know that the Decennial Census is constitutionally mandated? Do you know why people in your community may not be participating? Arm yourself with the facts.

[Census 101](#)
[Helping your community](#)
[Countdown to 2020](#)

CENSUS 101

census.gov

Why We Conduct the Decennial Census

U.S. Department of Commerce | Blogs | Index A-Z | Glossary | FAQs

Search

United States Census Bureau

Topics Population, Economy Geography Maps, Products Library Infographics, Publications Data Tools, Developers Surveys/Programs Respond, Survey Data Newsroom News, Blogs About Us Our Research

Census.gov > Our Surveys & Programs > Decennial Census of Population and Housing > About the Decennial Census > Why We Conduct the Decennial Census

Decennial Census of Population and Housing

About the Decennial Census

Why a Census?

History of the Census

Census in the Constitution

Related Sites

Information for Respondents

Census by Decades

Data

Geographies

Guidance for Data Users

Library

Newsroom

Technical Documentation

Contact Us

Why We Conduct the Decennial Census

[Tweet](#) [Share](#)

The framers of the Constitution of the United States chose population to be the basis for sharing political power, not wealth or land.

"Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers..."

- The Constitution of the United States, Article I, Section 2.

A census aims to count the entire population of a country, and at the location where each person usually lives.

The census asks questions of people in homes and group living situations, including how many people live or stay in each home, and the sex, age and race of each person. The goal is to count everyone once, only once, and in the right place.

How the Census Benefits Your Community

Federal funds, grants and support to states, counties and communities are based on population totals and breakdowns by sex, age, race and other factors. Your community benefits the most when the census counts everyone. When you respond to the census, you help your community get its fair share of the more than \$400 billion per year in federal funds spent on schools, hospitals, roads, public works and other vital programs.

Businesses use census data to decide where to build factories, offices and stores, and this creates jobs. Developers use the census to build new homes and revitalize old neighborhoods. Local governments use the census for public safety and emergency preparedness. Residents use the census to support community initiatives involving legislation, quality-of-life and consumer advocacy.

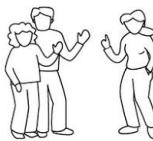
census.gov

Census Partnerships

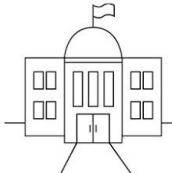
HELPING YOUR COMMUNITY

How the Census benefits your community

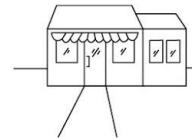
Federal funds, grants and support to states, counties and communities are based on population totals and breakdowns by sex, age, race and other factors. Your community benefits the most when the census counts everyone.



Residents use the census to support community initiatives involving legislation, quality-of-life and consumer advocacy.



Local governments use the census for public safety and emergency preparedness.



Businesses use census data to decide where to build factories, offices and stores, and this creates jobs.



Developers use the census to build new homes and revitalize old neighborhoods.

The screenshot shows a web browser window with the URL census.gov in the address bar. The page title is "Census Partnerships". The header features the United States Census Bureau logo on the left and navigation links for "PARTNERSHIPS", "GET STARTED" (underlined), and "TOOLKITS" on the right. The main content area has a blue background. A large, bold, white text "Act" is centered at the top. Below it, a white text block reads: "We know you're busy—you can make a difference whether you have just a second to spare or can commit to a sustained effort. Find the right commitment level for you." At the bottom of this blue section, there are three underlined links: "Quick wins", "Spread the word", and "Catalyze change". The bottom portion of the page is white, containing the text "IN 3 SECONDS" in a bold, blue, sans-serif font.

United States™
Census
Bureau

PARTNERSHIPS GET STARTED TOOLKITS

Act

We know you're busy—you can make a difference whether you have just a second to spare or can commit to a sustained effort. Find the right commitment level for you.

Quick wins

Spread the word

Catalyze change

IN 3 SECONDS

● ● ● < > □

⊕ census.gov

↻

↑ □ +

Census Partnerships

QUICK WINS

Make a difference in under five minutes!

Share this page

Share this page with your network and get the word out!

Share your feedback

[Join the effort](#) to support a fair and accurate count in 2020 and let us know what you're interested in.

Share why Census matters

Download and share this Census 101 graphic.

[Download graphic](#)

START A CONVERSATION

census.gov

Census Partnerships

CATALYZE CHANGE

If you can commit a little more time, start organizing in your community and become a part of Census programs and initiatives.

Host a pop-up workshop

Plan a “pop-up” using our toolkit —a guide to leading a creative problem-solving session to foster new collaborations and solve census challenges in your community

 [Download toolkit](#)

Start a Complete Count Committee

Connect with a Partnership Specialist in your area to find out how to build a team that can support a fair and accurate count.

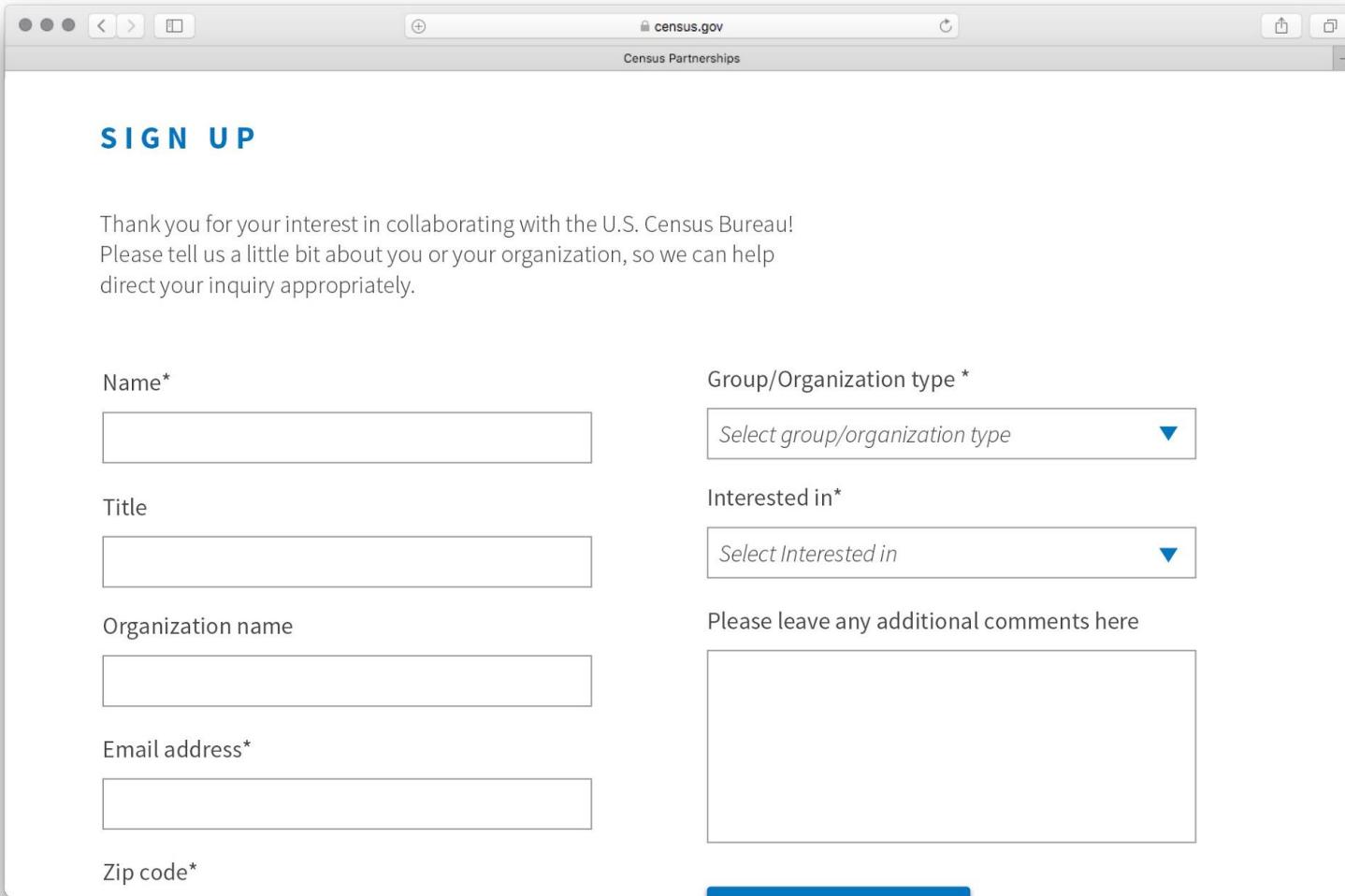
Join the Opportunity Project

Partner with The Opportunity Project to connect with other partners and create digital tools that strengthen American economic opportunity.

NEXT: Join

The screenshot shows a web browser window with the following details:

- Address Bar:** census.gov
- Page Title:** Census Partnerships
- Header:** United States™ **Census** Bureau
- Navigation:** PARTNERSHIPS, GET STARTED, TOOLKITS
- Main Content Area (Blue Background):**
 - Section Header:** Join
 - Text:** Sign up here to signal your support for the 2020 Census and all of the Census Bureau's vital surveys.
- Call-to-Action:** SIGN UP
- Text Below Call-to-Action:** Thank you for your interest in collaborating with the U.S. Census Bureau! Please tell us a little bit about you or your organization, so we can help direct your inquiry appropriately.

A screenshot of a web browser window titled "census.gov" with the sub-page "Census Partnerships". The main heading is "SIGN UP". Below it, a message reads: "Thank you for your interest in collaborating with the U.S. Census Bureau! Please tell us a little bit about you or your organization, so we can help direct your inquiry appropriately." The form consists of several input fields: "Name*" with a blank input box; "Group/Organization type *" with a dropdown menu labeled "Select group/organization type" and a downward arrow; "Title" with a blank input box; "Interested in*" with a dropdown menu labeled "Select Interested in" and a downward arrow; "Organization name" with a blank input box; "Please leave any additional comments here" with a large blank text area; "Email address*" with a blank input box; and "Zip code*" with a blank input box. A blue progress bar is visible at the bottom.

SIGN UP

Thank you for your interest in collaborating with the U.S. Census Bureau!
Please tell us a little bit about you or your organization, so we can help direct your inquiry appropriately.

Name*

Group/Organization type *

Select group/organization type ▾

Title

Interested in*

Select Interested in ▾

Organization name

Please leave any additional comments here

Email address*

Zip code*

census.gov

Census Partnerships

Toolkits

We have assembled toolkits with best practices and evidence-based techniques to reach and engage audiences around the country.

[Pop-up workshop toolkit](#)

[Audience outreach toolkit](#)

POP-UP WORKSHOP TOOLKIT

Rationale

The pop-up workshop uses design thinking to activate diverse people and organizations to solve challenges together in a hyper-interactive way.

Logistics



Lessons learned

Lessons learned

1. Bureaucracy is about people, not paper.

PARTNERSHIP PRINCIPLES FOR A CHANGING WORLD

KYLA FULLENWIDER
Chief Innovation Officer

MARA ABRAMS,
Managing Director,
Census Open Innovation Lab

LORENA MOLINA-IRIZARRY
Deputy Chief,
National Partnerships Program

Partnership Principles for a Changing World

Five innovation principles to support the elements of our business process model:

- Business Development & Buy-in
- Best Practices
- Integration & Scale

BUSINESS DEVELOPMENT AND BUY-IN

Agility & Adaptiveness

The world is changing fast—we need to build a program that can keep up.

In 2010 just over 62 million people owned cell phones—by 2020 it's estimated over 256 million people will possess at least one hand-held device. At the same time, social media has become a powerful tool for communication. In this new environment, the power of a tweet or Facebook post to change the conversation cannot be denied. With these powerful tools in the hands of almost every citizen, it is critical that the Census Partnership Program is agile and adaptive enough to respond in real time with messaging and facts that address constituents' concerns. Also for this reason, the divide and distinction between local and national approaches are less relevant as we approach 2020. A unified approach to partnerships is more relevant than ever and a strategy to bridge that gap is necessary for an accurate 2020 count.

Preliminary Recommendation

- Design agile program structure that can pivot when and where necessary;
- Upskill key staff (e.g. Partnerships Specialists) in agile methods to better equip them as the front line in our messaging and outreach efforts;
- Cultivate a close working relationship and integration with PIO.



01

BEST PRACTICES



PARTNERSHIP PRINCIPLES FOR A CHANGING WORLD

Quality Over Quantity: Building an Evidence-Based Partnership Program

Metrics and evidence-based practices will increase efficiency and decrease costs.

With limited resources and increasing constraints it's more critical now than ever to be strategic about how and with whom we partner. We must move beyond success metrics that value only the quantity of partners to metrics that value the quality and efficacy of partners. For example, 300 partner commitments could have a fraction of the impact of a line memo from a Census in a popular television show or in a tweet from an influential local leader. Changing the way we define and measure success will be essential to adapting the Partnership Program for the 21st Century.

Preliminary Recommendation

- Leverage ongoing Office of Evaluation Science research and qualitative data from partners and staff to develop key Performance Indicators and new success metrics. Do this by integrating clear performance elements into individual performance plans for PS and DDS that measure quality over quantity of partnerships. Identify a model to test both quantitative impact and qualitative value of the Partnership Program on Census responses.
- Develop evidence-based best practices and activities that any partner can use to be more effective with fewer resources; disseminate via open tools such as the Partner Guidebook, partner website, and via internal relationship managers,
- Create research pathways to ease burden of future research efforts.

BEST PRACTICES



Partners as Subject Matter Experts

Partners know what's best—let's put their expertise to work.

Working with trusted partners in 2020 and across the Enterprise is more than a nice to have—it's a must have. Partners bring trust, infrastructure, resources, and access that the Census Bureau does not have on its own. Additionally, they bring credibility. Their expertise is generally both community and context-specific. It's not always clear how to use this knowledge; partners know their audience and they know their product. Rather than box partners in by prescribing to them what to do based on what we assume is best, partners should be empowered to identify and deploy their own expertise and influence in ways they deem appropriate. By allowing partners to "take the lead" and develop their own engagement approach we create deeper buy-in and more effective commitments and engagements over the long-term.

Preliminary Recommendation

- Upskill key staff in Agile Design Thinking methods and into Account Management roles to work with partners to tap into their creativity and expertise when building engagements and commitments;
- Begin strategic engagement of "Opinion Leader" partners and influencers, who then influence other partners. (This leverages the Diffusions of Innovations method; see 2010 CDP report recommendation.)

INTEGRATION AND SCALE



PARTNERSHIP PRINCIPLES FOR A CHANGING WORLD

One to Many & Many to More: Building a Partner Network

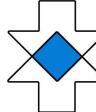
Create a Network Effect that allows us to scale quickly and inexpensively.

Rather than cultivating individual relationships with each partner, a "One to Many" model creates opportunities for Census staff to bring multiple partners together at one time. This catalyzes the vital growth of a robust Partner Network, in which partners are interconnected and engaged with one another in meaningful ways that allow them to provide opportunities for partners to self-organize and work together in new ways. The "pop-up" commitment workshop is a simple and effective way to do this; it allows staff to engage more than one partner at a time—saving time and money—and allows partners to meet each other and work collaboratively, providing a potential to yield commitments between partners amongst themselves (e.g. ULAC, McDonalds, YouTube working together to develop a joint solution) that creates exponential impact nationwide.

Preliminary Recommendations

- Upskill PS and DDS to facilitate commitment workshops "Census Pop-Up" at important convenings and conferences;
- Carry CCC and CCC meetings and engagements via design methodology ("pop-up" format);
- Create and develop network to promote taking the census (small c) as an act of civic engagement (as opposed to "big C" Census as a federal agency);
- Run monthly webinars and Town Halls with partners.

INTEGRATION AND SCALE



Bottom-Up & Top-Down Integration

One Integrated Partnership Program is essential for decreasing costs, increasing efficiency, and improving efficacy.

In order for the Partnerships Program to be most effective there must be seamless top-down and bottom-up integration. The program must be able to scale quickly and efficiently if we do not equip RDS with cohesive direction, provide best practices, upskill staff, and create clear and open lines of communication and trust. HQ must learn from the regions what works and what doesn't in order to scale best practices and build a national program that reflects that. Furthermore, it will not be possible to build an agile program without an integrated feedback loop with the RDS. By creating one Partnership Program that encompasses regional and national efforts, we can allow for a more cohesive, streamlined, and resource-efficient effort.

Preliminary Recommendations

- Issue an immediate directive/memo for RDs encouraging them to start reaching out to national organizations and corporations in their regions & include National Partnerships Lead, Mara, Loren, & Carol in their annual reports;
- Do a Listening and Learning Tour in regions with AD and Partnerships Lead;
- Move all partnerships efforts under one office with a shared mandate;
- Leverage existing Census infrastructure to scale (CIC, SDC, SCC, SIS).

02

03

Lessons learned

- 1. Bureaucracy is about people,
not paper.**

- 2. No prototype, no meeting.**

PARTNER GUIDEBOOK

WE'RE COUNTING ON YOU

U.S. CENSUS BUREAU PARTNER GUIDEBOOK

United States®
Census
Bureau

Lessons learned

1. Bureaucracy is about people,
not paper.
2. No prototype, no meeting.
3. Show, don't tell.

Everyone counts.

The census counts every person living in America once, only once, and in the right place.



Taking part is your civic duty.



Filling out the census forms is mandatory: It's a way to participate in our democracy and say "I COUNT!"

2020 will be easier than ever.



For the first time ever, the decennial census will offer an online response option.

Your data is safe.

Title 13 of the U.S. Code protects the confidentiality of all your information.

By law, the Census Bureau cannot share your answers with the IRS, FBI, Welfare, Immigration—or any other government agency.



It's about \$400 billion.



The distribution of \$400 billion in federal funds, grants and support to states, counties and communities are based on census data.

That money is spent on schools, hospitals, roads, public works and other vital programs.

It's in the constitution.



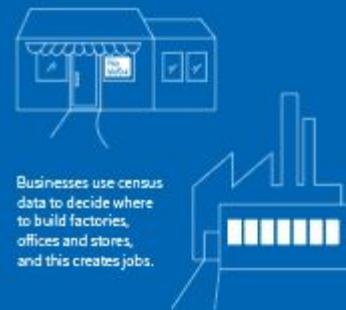
Since the first census in 1790, the U.S. has counted each resident of the country, where they live on April 1, every ten years.

It's about fair representation.

The results of the decennial census are used to reapportion the House of Representatives, determining how many seats each state gets.



Census data is being used all around you.



Businesses use census data to decide where to build factories, offices and stores, and this creates jobs.



Local governments use the census for public safety and emergency preparedness.



Developers use the census to build new homes and revitalize old neighborhoods.

Thank you!

Reinventing Web- Applications: Coding for the Future

Demographic Surveys Division

Jeffrey O'Neil
Zachariah Meade Turner
Brian Barenbaum
Richard Lee Downs

CIVIC 
DIGITAL 
FELLOWSHIP 



Li Wang
Massachusetts Institute of Technology



American Housing Survey (AHS)

American Housing Survey - Table Creator

Project 1: Build a New Housing Data Product
for the American Housing Survey

American Housing Survey (AHS) Website Breakdown

Table Criteria:

Select Area: National

Select Year: 2015

Select Table: Rooms, Size, and Amenities

Column Variables

Variable 1: None

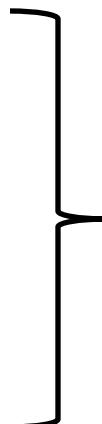
Variable 2: None

Filters

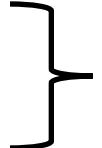
Tenure Filter: -All-

Geography Filter: -All-

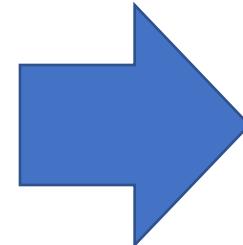
Get Table Reset



Parameters



Filters



Characteristics	National
Total	118,290
Rooms	
1	504
2	1,170
3	9,209
4	19,777
5	26,265
6	25,330
7	16,942
8	10,460
9	4,728
10 or more	3,905
Persons per Room	
0.50 or less	85,888
0.51 to 1.00	29,874
1.01 to 1.50	2,152
1.51 or more	377

Census Data Given Specific Parameters

Challenges

01

The AHS Website was coded a long time ago. The platform that it was coded on is currently outdated and incompatible with the latest technologies.

02

As information was updated, repetition of previous code (formerly used to optimize code compilation, rolled out loop method), made functions difficult to test.

03

People tested the application by hand. Because of the sheer number of classes used to style the website, small discrepancies between web browsers and screen size came to fruition.

Time Loss: Manual Testing

	<u>Parameters</u>	<u>Filters</u>	Time to Physically Input Information:	
Areas	Years	Tables	Variables	
42	x 3	x 24	x 27 x 27 x 3 x	5 secs

= 9185 Hours = 230 Work Weeks

Solution Pt. 1: Automated Testing

Jasmine 2.6.4

4 specs, 0 failures

```
myApp
  my test files are running
  testing beforeEach function
  rootScope was correctly injected
  Click event functions tests
    click event test suite successfully loaded
```

Options

finished in 0.082s

finished in 0.082s

Structured testing suite

This screenshot shows a successful Jasmine test run. The interface includes a sidebar with test details and a main area with a green bar indicating the total execution time of 0.082 seconds. A bracket on the left groups the sidebar and the main area, labeled 'Structured testing suite'.

Jasmine 2.6.4

5 specs, 1 failure

Spec List | Failures

myApp Click event functions tests should invoke the hidePanel click event

ReferenceError: spyOnEvent is not defined

```
ReferenceError: spyOnEvent is not defined
  at Object.<anonymous> (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/js/ahsangular_test.js:50:4)
  at attemptSync (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3898:24)
  at QueueRunner.run (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3887:9)
  at QueueRunner.execute (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3872:10)
  at Spec.queueRunnerFactory (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:816:35)
  at Spec.execute (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:473:10)
  at Object.fn (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:4975:37)
  at attemptAsync (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3945:24)
  at QueueRunner.run (https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3884:9)
  at https://dsd-web6.dev.demo.census.gov/home/wang0364/ahs/node_modules/jasmine-core/lib/jasmine-core/jasmine.js:3924:18
```

Options

finished in 0.037s

Stack trace

This screenshot shows a failed Jasmine test run. It displays a red bar for 5 specs, 1 failure, and a detailed stack trace for the failing test. A bracket on the left groups the sidebar and the main area, labeled 'Stack trace'.

Solution Pt. 2: Better Coding Practices

Before

A screenshot of a code editor showing a block of JavaScript code. The code contains numerous repeated calls to the `animate` method on different DOM elements, such as `$('.resultsContainer')`, `$('#results')`, `$('.container')`, `$('#showPanel')`, `$('.button')`, and `$('.reset')`. Each call includes specific CSS properties like `marginLeft`, `width`, or `opacity`. A blue box highlights the final closing brace at line 337, and a bracket labeled "Repetition" points to the repetitive animation logic.

```
301
302
303
304
305     $(".resultsContainer").animate({
306         marginLeft : "1px",
307         width : "749px"
308     }, 200);
309
310     $("#results").animate({
311         width : "749px"
312     }, 200);
313
314     $(".container").animate({
315         width : "320px",
316         opacity : 1
317     }, 400);
318
319     $("#showPanel").animate({
320         width : "0px",
321         opacity : 0
322     }, 200).hide("slow");
323
324     $(".button").animate({
325         opacity : 1
326     }, 1000);
327
328     $(".reset").animate({
329         opacity : 1
330     }, 1000);
331
332 });
333
334 //jQuery('table').Scrollable(100, 800);
335
336
337 ;
```

After

A screenshot of a code editor showing a block of JavaScript code. The code has been refactored into a service named `homeService`. It contains a single function `getData` that uses `jsonp.getItems` to fetch data from a JSON endpoint. The original repetitive animation logic from the "Before" section has been removed. A blue box highlights the opening brace of the `getData` function at line 16, and a bracket labeled "Modularization" points to the refactored service code.

```
1
2     angular.module('raApp').service('homeService', homeService);
3
4     function homeService($q) {
5         function getData() {
6             return $q.all([
7                 $q.when(jsonp.getItems({list:"resourceInformation", fields:[ "ID", "resourceName", "resourceType", "daysBetweenAudits" ]})),
8             $q.all([ ]).then(function (response) {
9                 return response;
10            }));
11        }
12        return {
13            getData: getData
14        };
15    }
16
17 |
```

Project 2: Improve Workflows By Integrating Open Source Front-End Technology

(Name of Application) (optional)



Auditor's name

JamesBondID

My Audits

Audit History

Order By: Due Date ▾

Show: All Incomplete Completed

Group Name	Type of Group	Due Date	Last Audit	Status
(Name of group being audited)	(LDAP, <u>Sharepoint</u> , etc.)	(Date the audit is due)	(Last date reviewed)	(Complete or incomplete)

Problem

1

The old personnel auditing system used outdated technology that will be difficult and expensive to maintain as the Census Bureau transitions to newer technologies.

2

For applications coded in Angular, a newer version has begun to replace Angular 1, whose functions are no longer supported by up-to-date testing platforms such as Jasmine.

Benefits of the Newer Angular

01

It is compatible with node.js (used in many newer applications) and PHP (used in many older applications).

02

It has an faster code optimization routine.

03

It comes with built-in testing frameworks such as Jasmine and Karma

04

It comes with its own set of methods and style classes that are constant in functionality between different operating systems.

Application Using New Angular (MVP)

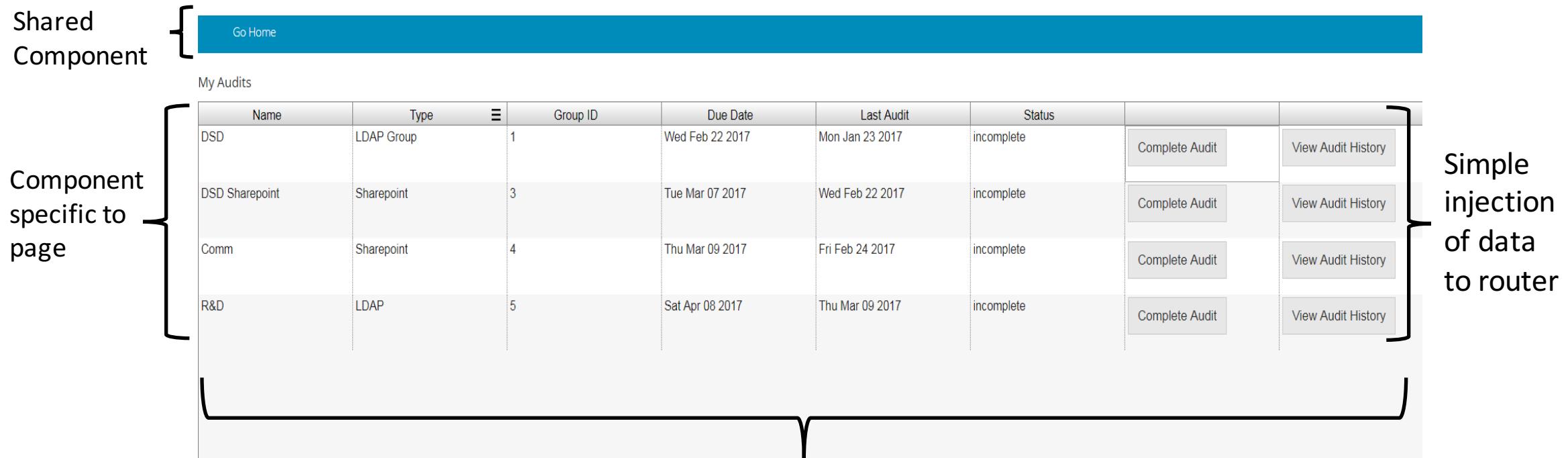


Chart created from Angular class

To The Future

Old practices were tailored to the necessity of the time. Though they worked well many years ago when technology was different, they are not always the most efficient for the modern era.

As new technologies are created, software engineers should be open and willing to use them.

Machine Learning

Optimizing the Commodity Flow Survey

Andrew Cukierwar



Washington University in St. Louis



Mentor: James Hinckley, Economic Reimbursable Surveys Division

Commodity Flow Survey

- Conducted **every 5 years**
- Co-sponsored by Census and BTS
- Each quarter, select businesses report data on up to 80 of their shipments



SCTG Codes

Standard Classification of Transported Goods

- SCTG code for each shipment
- Finding code is time-intensive
 - Over 500 SCTG codes
- Incorrect SCTG codes
- Ex: 01003 – Live Poultry

SCTG DESCRIPTION AND CODE – Continued			
Description	SCTG	Description	SCTG
23 Other Chemical Products and Preparations – Continued		24 Plastics and Rubber	
Vegetable tanning extracts or coloring matter, tannins and their derivatives, animal coloring matter, not elsewhere classified, mastics (<i>includes putty, powdered glass, household dyes, surfacing preparations, and specialty preparations for paint, glass, or similar uses</i>) (<i>excludes inorganic pigments, see 2026; carbon black, see 2029; and organic dyes, pigments, lakes, and toners, see 20504</i>)	23121	► Plastics and rubber in primary forms	
Inks	23122	Plastics in primary forms; other cellulose derivatives	24101
Essential oils, resinoids, and mixtures of odoriferous substances used as raw materials	23201	Natural rubber and similar natural gums, reclaimed rubber, and synthetic rubber and factice, in primary form or in plates, sheets, or strip	24102
Perfumery, cosmetic, or toilet preparations	23202		
Soap, organic surface-active agents, cleaning preparations, polishes and creams, and scouring preparations	23300	► Articles of plastics	
Photographic or cinematographic film, plates, paper, paperboard, or textiles (<i>includes exposed only or exposed and developed, and chemical preparations for photographic use</i>)	23400	Man-made fiber filament tow or staple fibers, not carded or combed	24211
Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products, plant-growth regulators, disinfectants, and similar products (<i>excludes chemicals not made up as preparations, see 20xxx</i>)	23500	Monofilaments of plastics of which any cross-sectional dimension exceeds 1 mm; rods; sticks; and profile shapes	24212
Glues and prepared glues	23901	Plastics plates, sheets, film, foil, tape, strip, and other flat shapes (<i>includes combinations with other materials</i>)	24213
Prepared explosives, pyrotechnic products, matches, pyrophoric alloys, and combustible preparations, not elsewhere classified (<i>excludes cellulosic explosives not in prepared forms, see 24101, and other explosives not in prepared forms, see 20xxx</i>)	23902	Plastics tubes, pipes, hoses, and fittings, including joints, elbows, and flanges	24221
Activated carbon, activated natural mineral products, and animal black	23903	Plastics floor, wall, or ceiling coverings	24222
Anti-knock preparations, oxidation or gum inhibitors, viscosity improvers, anti-corrosive preparations, and other prepared additives for mineral oils such as gasoline; hydraulic brake and transmission fluids containing none or less than 70% by weight of petroleum or bituminous oils; anti-freezing preparations; and prepared de-icing fluids	23904	Plastics bathtubs, shower-stalls, wash-basins, toilet bowls and tanks, toilet seats and covers, and similar sanitary ware	24223
Industrial monocarboxylic fatty acids and acid oils from refining	23905	Plastics closures and articles for conveyance or packing goods, including, cases, trays, pails, bags, bottles, flasks, spools, food or plant containers, and foam shapes for packing	24224
Water-treatment preparations (<i>includes anti-scaling compounds, flocculating agents, and water-softening compounds</i>)	23906	Plastics household or toilet articles	24225
Other chemical products and preparations not elsewhere classified (<i>includes turpentine and other chemical products of wood distillation or the manufacture of wood pulp, gelatin, enzymes, artificial and prepared waxes, dental preparations (excludes fillings), and lubricating preparations containing less than 70% petroleum</i>) (<i>excludes preparations containing 70% or more by weight of petroleum oils or of oils obtained from bituminous minerals, see 19100</i>)	23909	Other plastics articles, not elsewhere classified (<i>includes builders' ware, hardware, fasteners, apparel, ornamental articles, and insulating or polarizing material and fittings for electrical equipments</i>)	24229
		► Articles of rubber	
Tires, inner tubes, mud or tire flaps, and "camelback" strips for retreading, of vulcanized rubber (<i>excludes tread rubber, see 24102</i>)	24310		
Tubes, pipes, and hoses, of vulcanized rubber (<i>excludes hard rubber, see 24399</i>)	24391		
Other articles of rubber, not elsewhere classified	24399		
25 Logs and Other Wood in the Rough			
Logs for pulping (pulpwood)	25010		
Logs for lumber	25020		
Fuel wood	25091		
Wood in the rough, treated with paint, stains, creosote, or other preservatives	25092		
Other untreated wood in the rough	25093		
26 Wood Products			
Wood chips or particles	26100		
Lumber, treated	26211		
Lumber, untreated	26212		

CFS-1200

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Solution

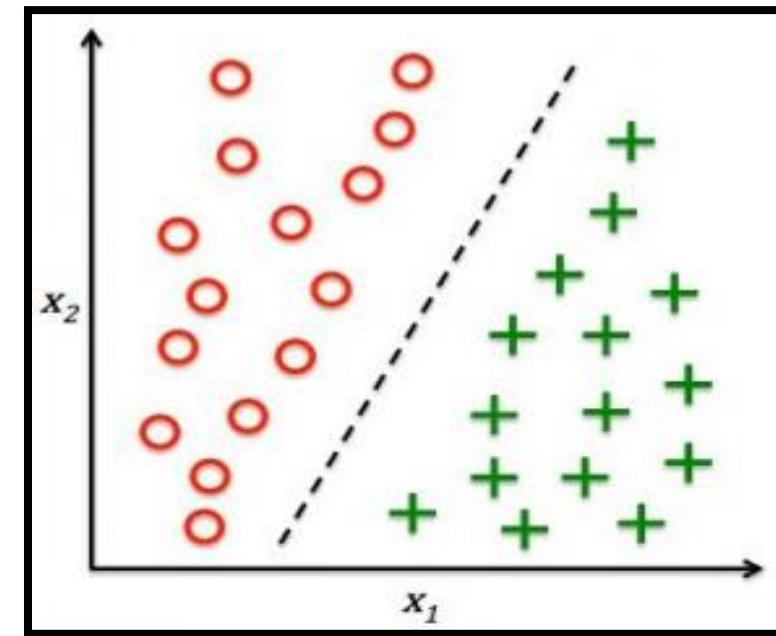
Machine Learning

- Use **machine learning** techniques to **automate** assignment of SCTG codes to shipments
 - Classify shipments into SCTG codes
 - Allows survey responders to **save great amount of time**
- Implemented in Python using the Scikit-Learn library

Classification

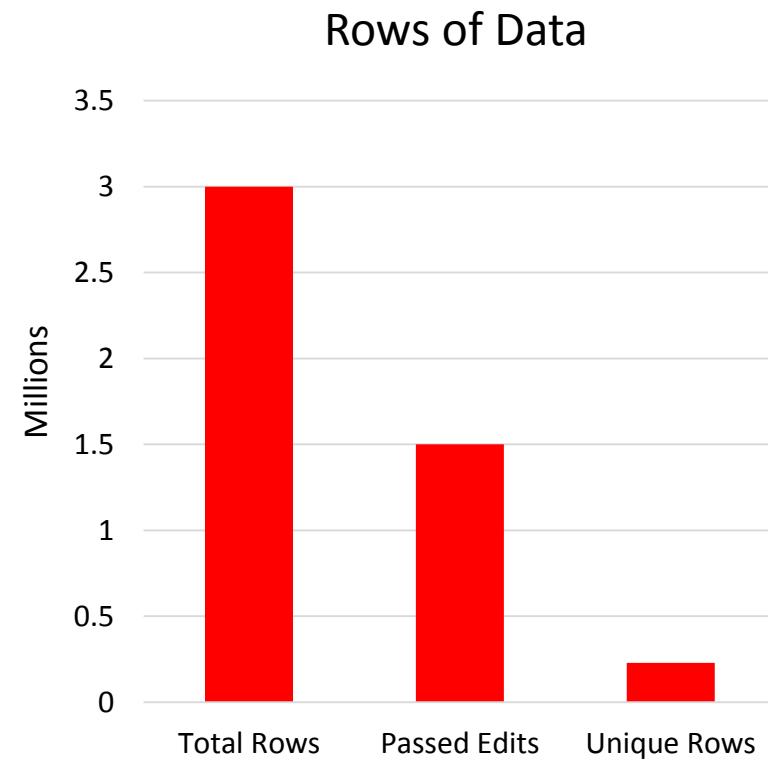
- Use X-variables to identify what class (Y-variable) an item belongs to

	X1	X2	X3	Y
Item 1	5	1	3	O
Item 2	4	5	4	+
Item 3	2	7	6	+
Item 4	2	9	8	O
Item 5	3	7	6	+



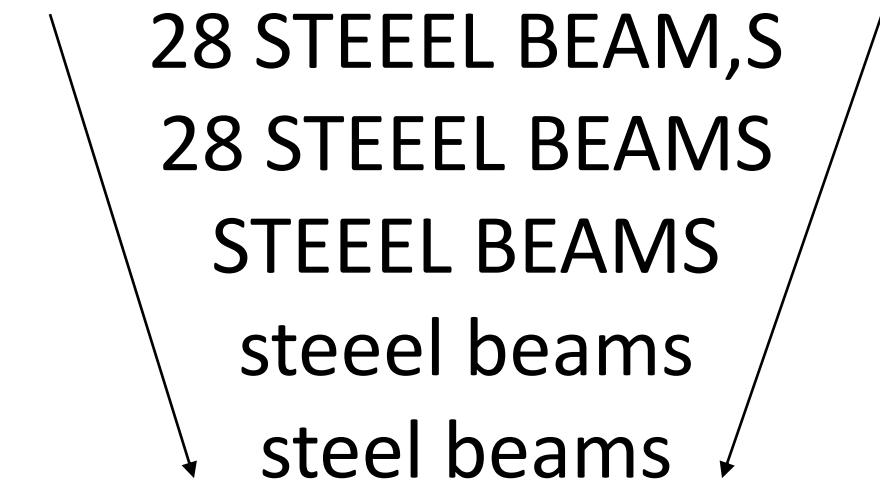
Initial Data Preparation

- Initially **3 million** rows of data
- Only **1.5 million** rows pass edits
 - Ex: Shipment is missing SCTG code
- Remove Duplicate Rows
 - Left with **230,000 unique** rows



Text Preprocessing

- Data includes short **text description of shipment**
- Manipulate text to make it **uniform**

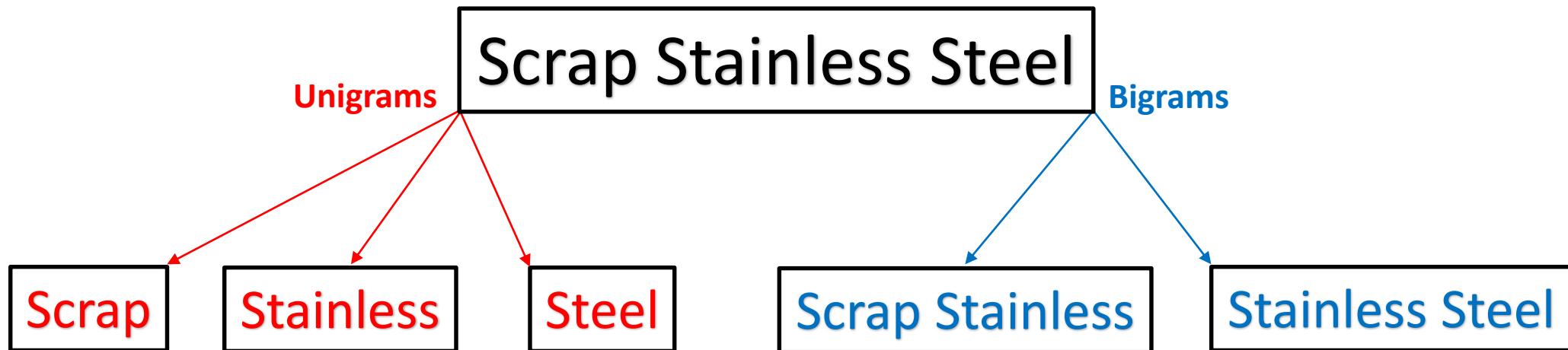


Text to Matrix

- **Must convert text to matrix form**
 - Algorithms only work on **numerical data**
- **TF-IDF** (Term Frequency – Inverse Document Frequency)
 - Bag of Bigrams

Bag of Bigrams

Each description is split into a ‘bag’ of individual words (**unigrams**) and pairs of consecutive words (**bigrams**)



TF-IDF

- Create matrix of counts of unigrams and bigrams

	Description	steel	beams	pipe	steel beams	steel pipe	steel steel
1	steel beams	1	1	0	1	0	0
2	steel pipe	1	0	1	0	1	0
3	steel steel	2	0	0	0	0	1

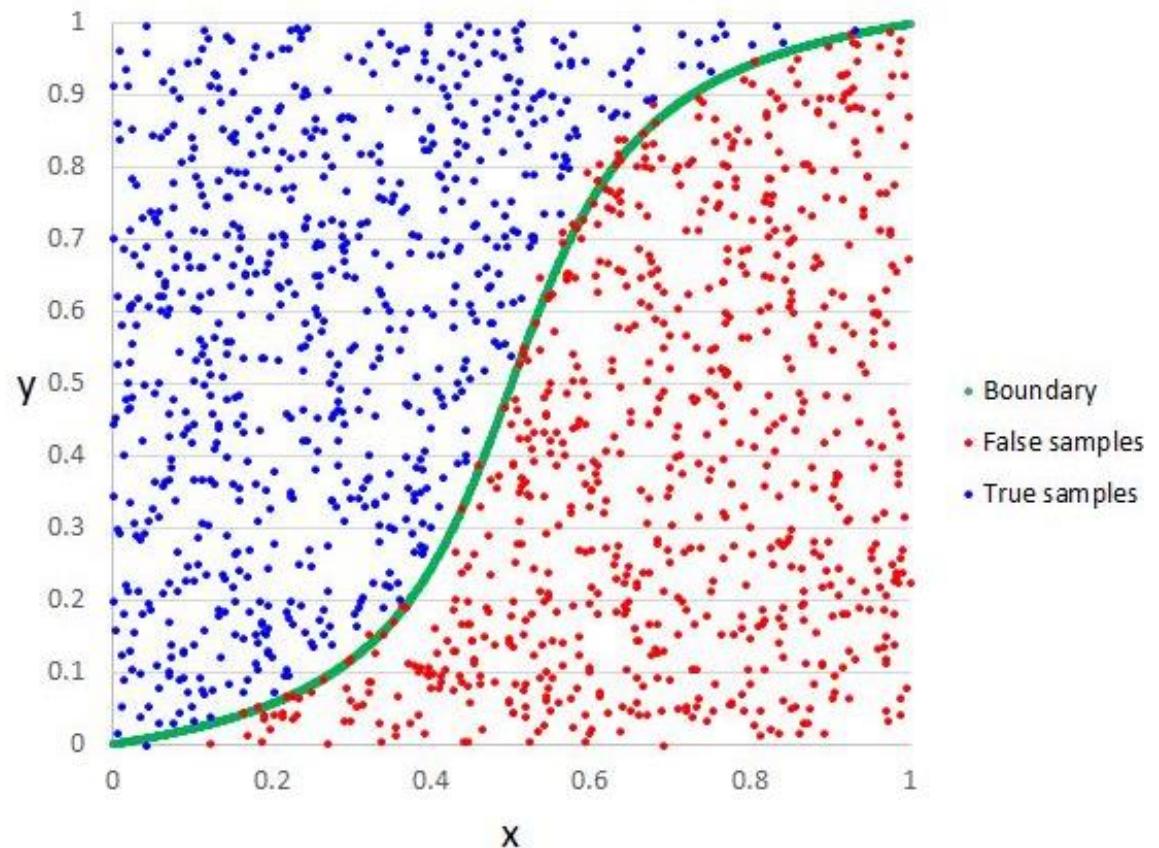
- Multiply matrix values by inverse of frequency in full body of text
- Resulting matrix is **large but sparse**
 - 230,000 Rows and 170,000 Cols = **39.1 billion values**
 - Nearly all values are **0's**

Matrix Processing

- Add two columns of data to the matrix
 - Price per weight
 - Average word length
- **Normalize** all data to be between 0 and 1

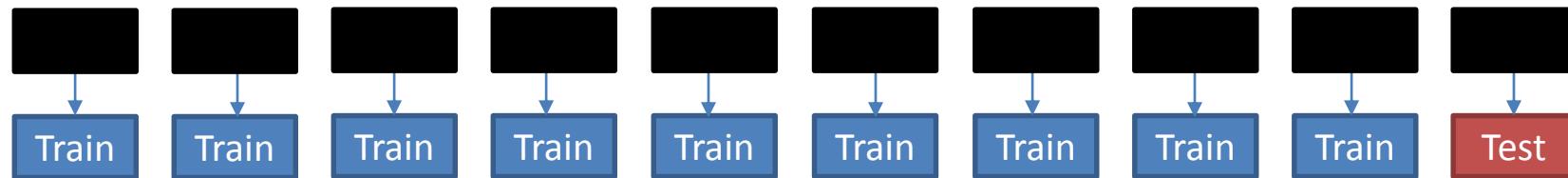
Logistic Regression Classifier

- Fast for large and sparse data
- **Highest accuracy** for this data
- Returns **probability** scores
 - Probability of X shipment having SCTG code Y is Z%



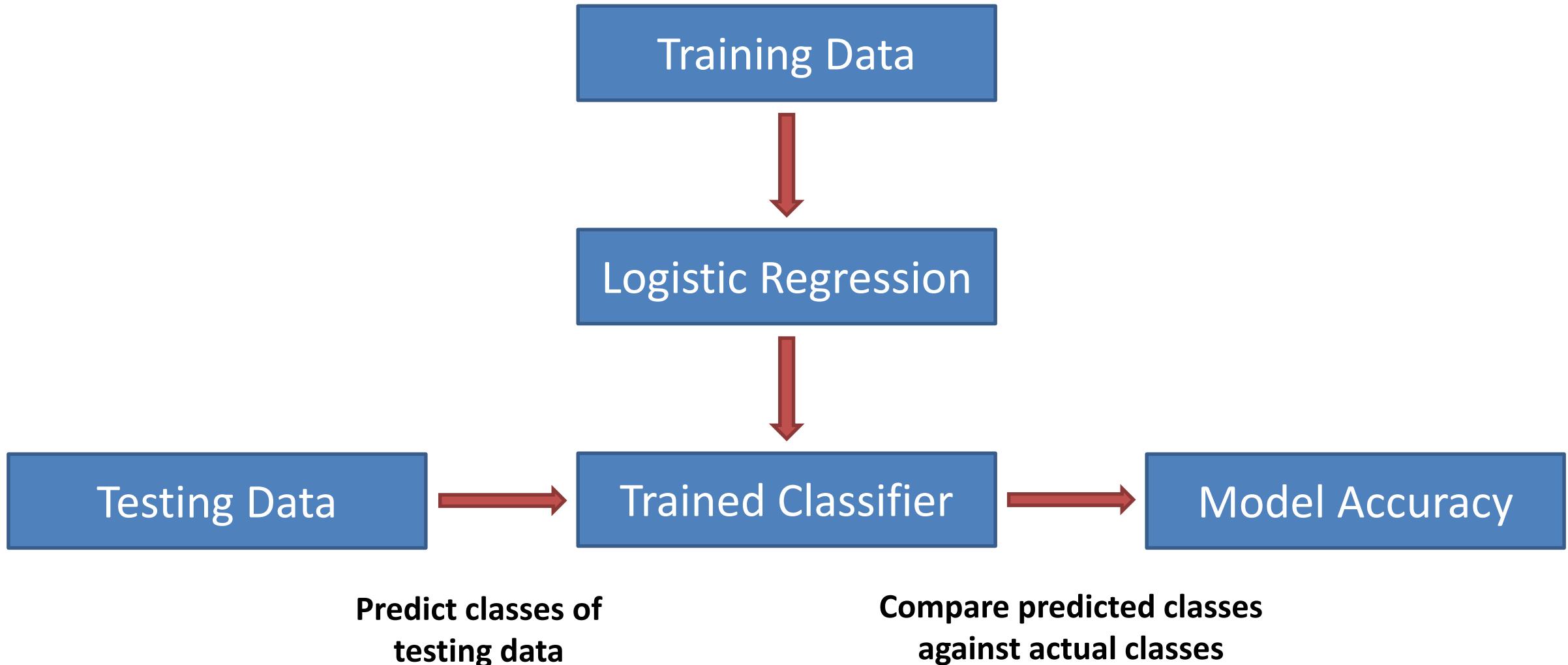
Training and Testing

- Split data into training and testing data (90-10 split)



- Use training data to “create” model
- Use testing data to determine accuracy of model

Model Process



Results

- Predict **first 2 digits** of SCTG code with **65% accuracy**
- Predict **full SCTG code** with **48% accuracy**
- **Given first 2 digits** of SCTG code, can predict **full SCTG code** with **70% accuracy**

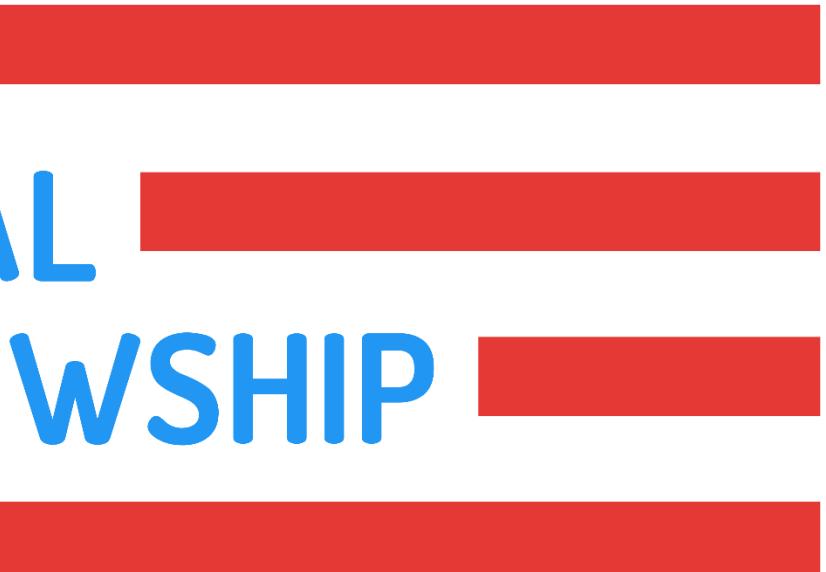
Limitations

- Model is only as good as the data used
 - **Using survey respondent data to train**
 - Short descriptions of shipments (100 char limit)
 - Many classes
 - 43XXX – Mixed Freight
 - Codes for miscellaneous products

Future Improvements

- Improve quality of data
 - Train model only using label-verified shipments
 - Ensure spelling of descriptions
 - Increase shipment description length
 - Train model with more data
- Use more advanced algorithms (deep learning)

CIVIC DIGITAL FELLOWSHIP

Three thick red horizontal bars of varying lengths are positioned below the text "CIVIC", "DIGITAL", and "FELLOWSHIP" respectively.

The views expressed here are those of the author and not necessarily those of the Census Bureau. All data have been reviewed to ensure privacy and confidentiality.

Linking Census with Third Party Data: The Case of Federal Research Funding

Andrea Chen

Informatics, University of Washington

Data Scientist, Civic Digital Fellow

United States Census Bureau

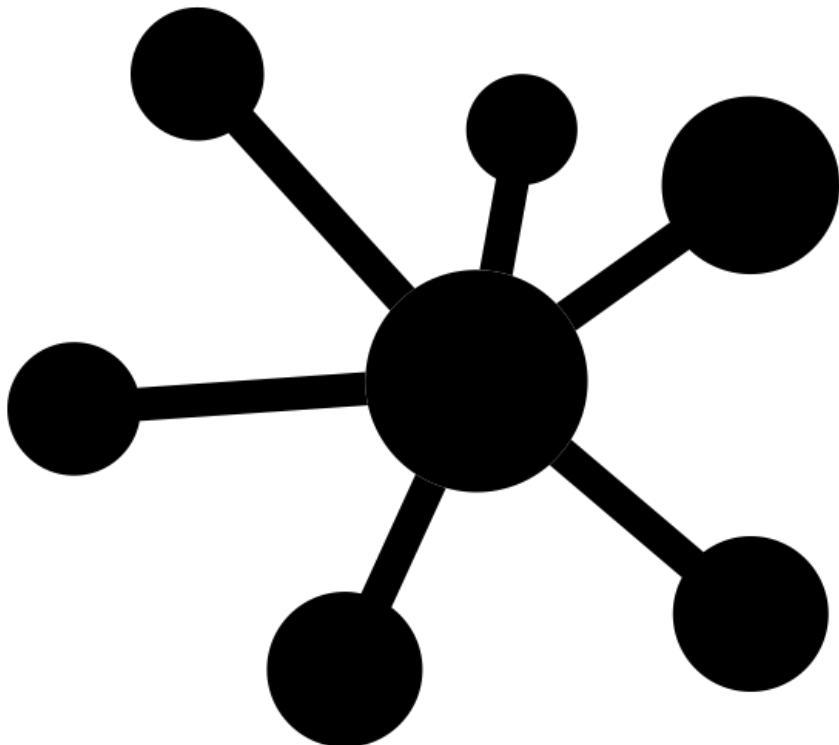
Mentor: John Cuffe, CBDRA

Project Overview

How can the
Census use data
from external
sources?



Project Overview

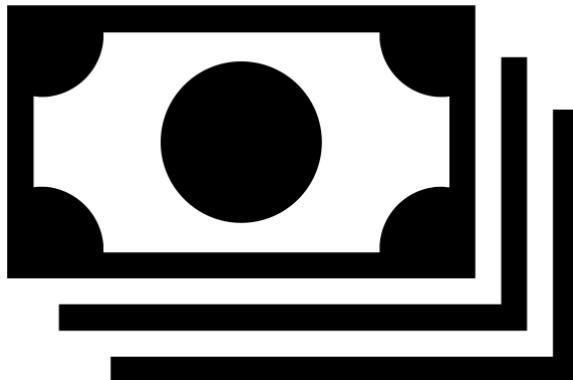


Census Center for Big
Data Research and
Applications

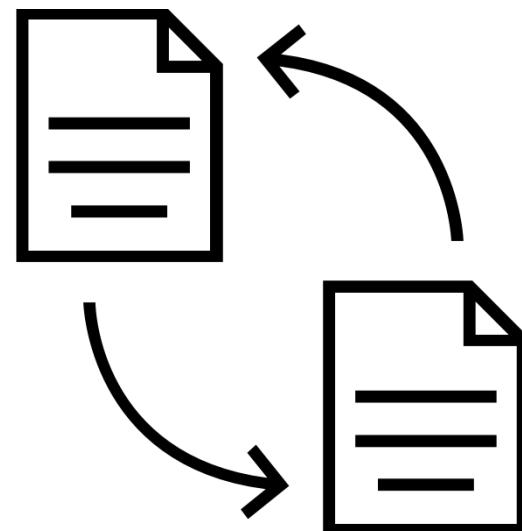
Innovation Measurement
Initiative

Project Impact

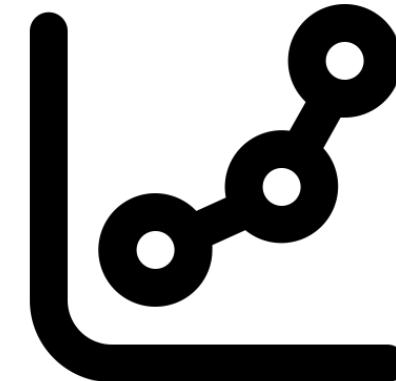
Reduce costs of
re-producing
existing statistics



Increase accuracy
of the data

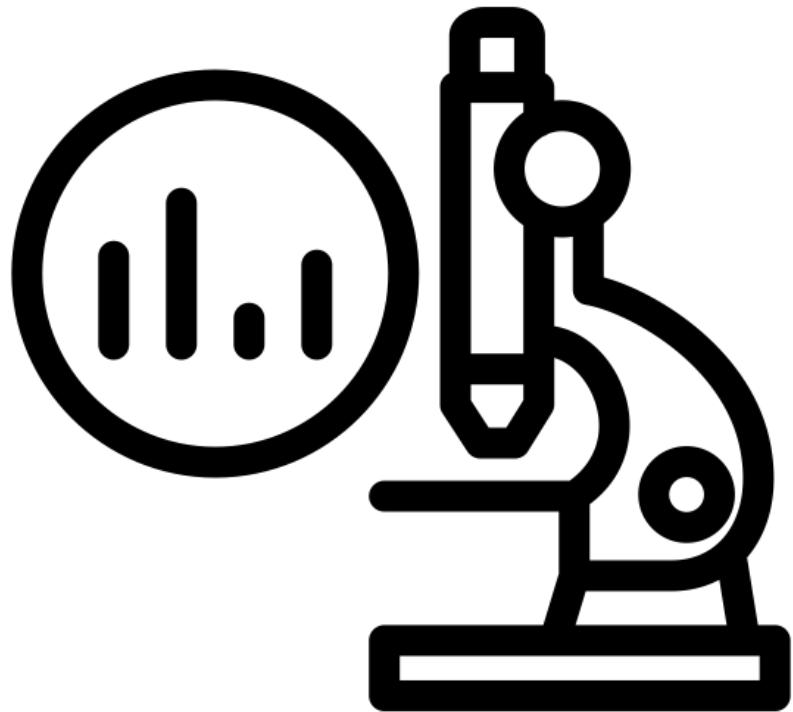


Produce new
statistics and
economic indicators



\$18 billion

Research Question



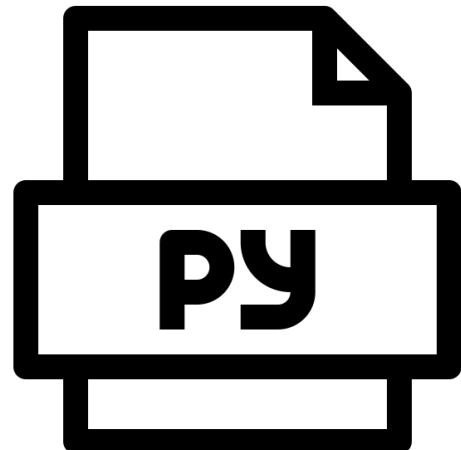
What is the economic impact
of research spending?

What are the career outcomes
of students paid by research
grants?

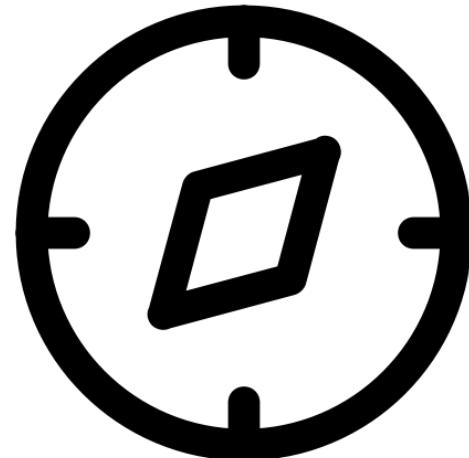
Are undergrads who receive
research grants more or less
likely to work at young firms?

Technologies Incorporated

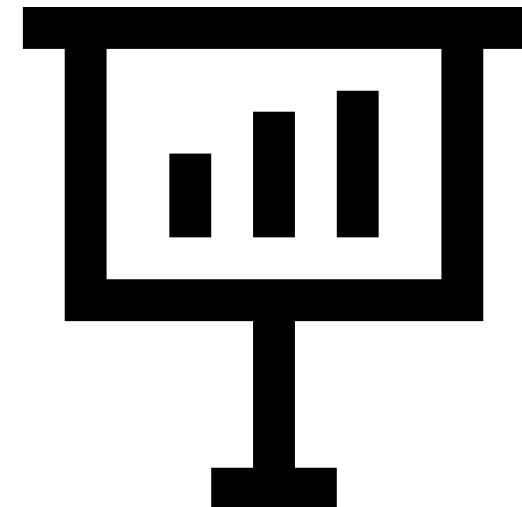
Utilized Python and its packages



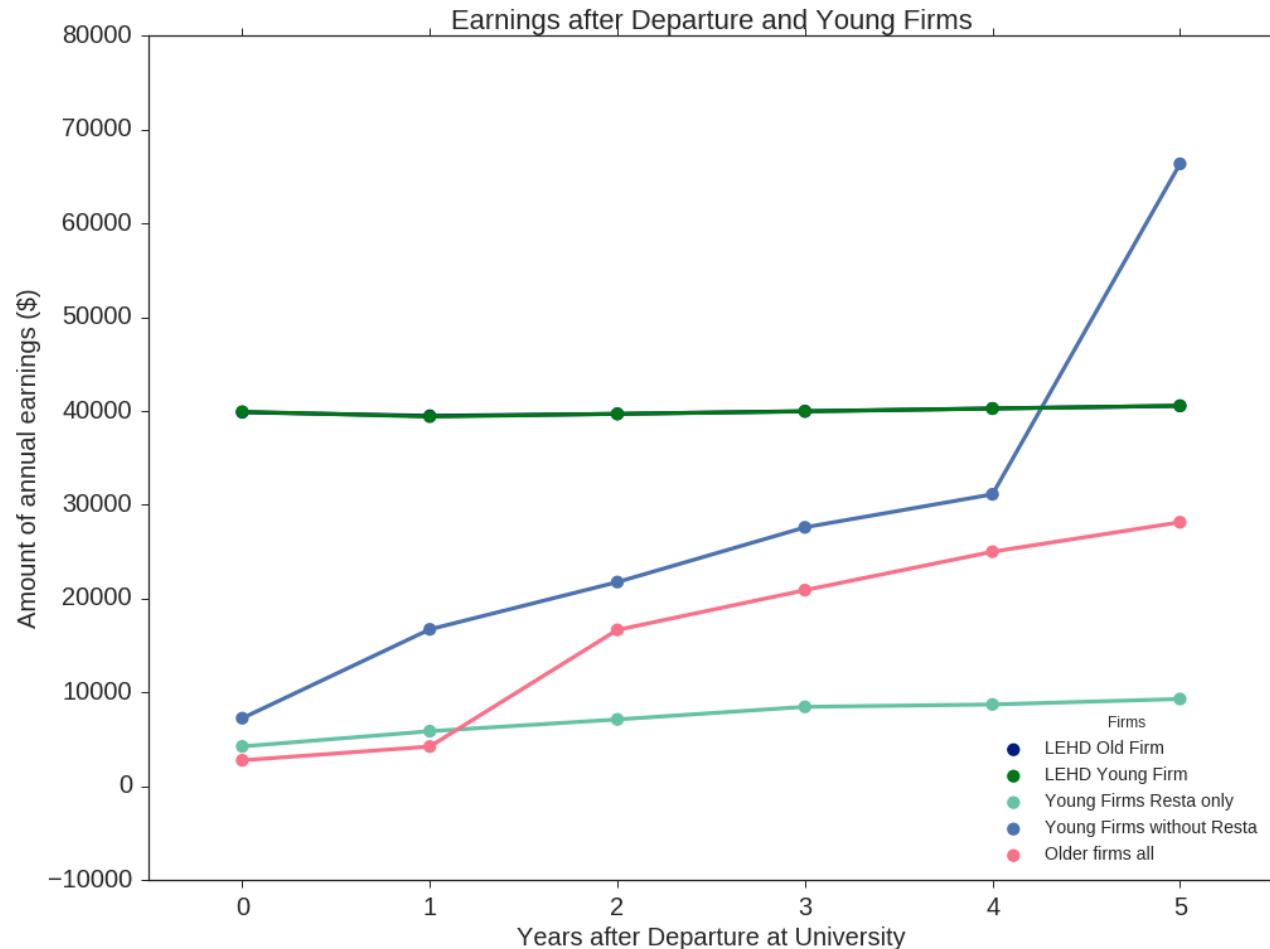
Explored data with pandas and numpy



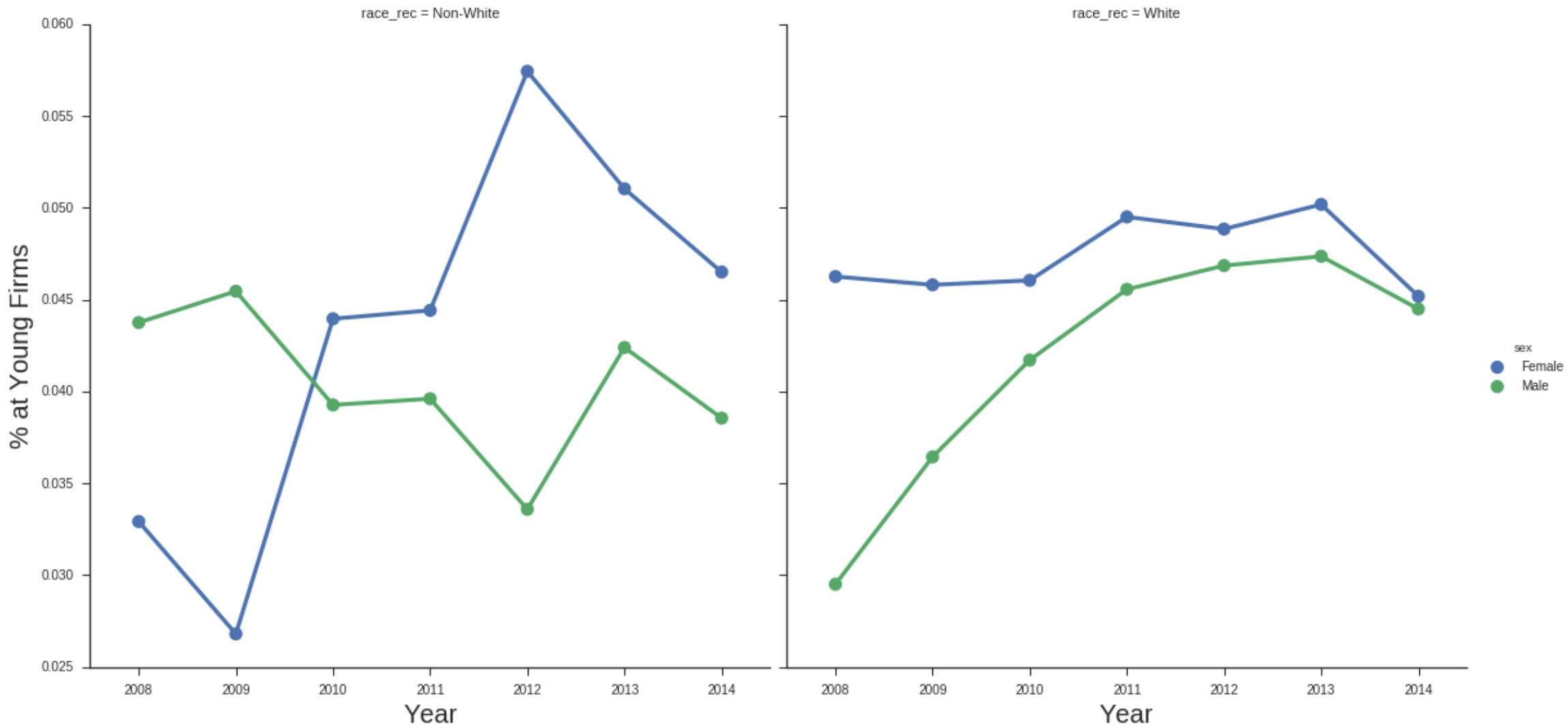
Visualized the data with seaborn and matplotlib



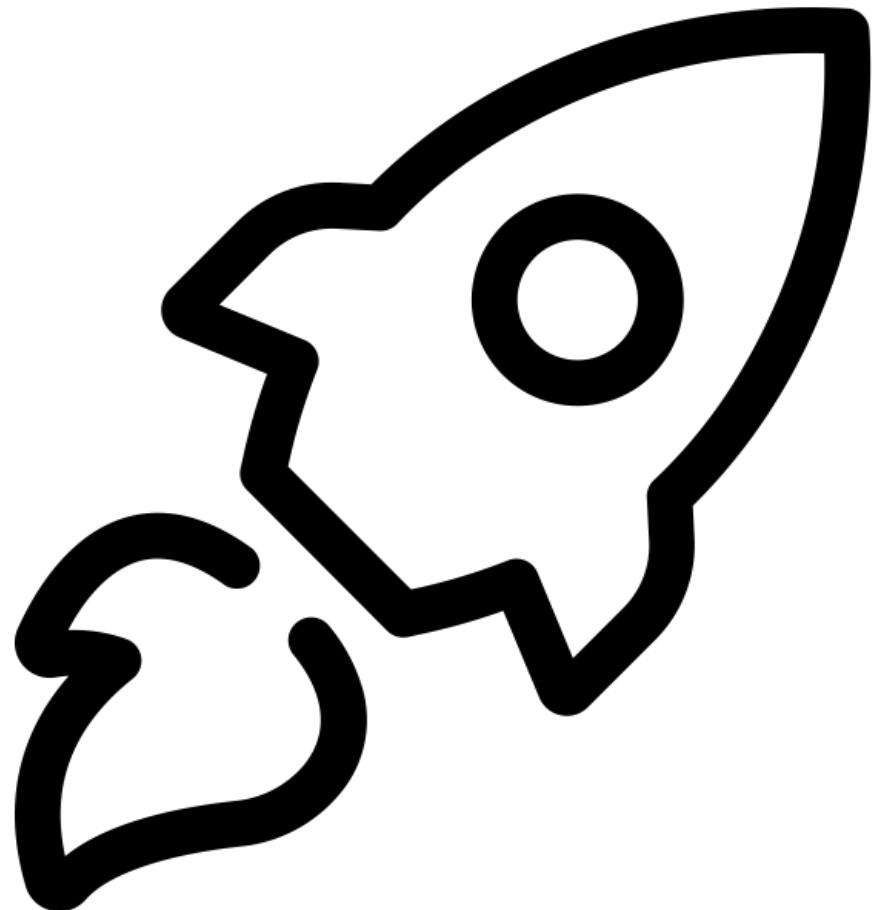
Earnings at a young firm tend to grow at a faster rate.



More women tend to be at young businesses.



Concluding Discoveries



Real data is incredibly complex and messy

Data security was always a top priority throughout my research at the Census

Be bold and ask questions

Thank you!

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