

Crowdsourcing Metadata – Challenges and Outlook

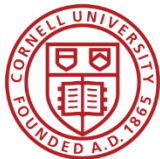
Washington, 10 May 2016

Lars Vilhuber, William Block (Cornell University)

Crowdsourcing Metadata – Challenges and Outlook

Washington, 10 May 2016

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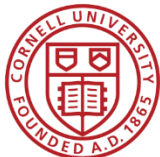


Acknowledgements

Based on work with

- Benjamin Perry (formerly Cornell University)
- Venkata Kambhampaty (formerly Cornell University)
- Kyle Brumsted (McGill University)
- Jeremy Williams (Cornell University)
- Carl Lagoze (University of Michigan)
- John Abowd (Cornell University)

and materials presented in INFO 7470, all of that with funding by NSF Grant #1131848



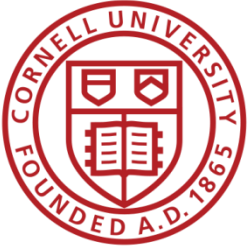
I'm going to argue that...

- **Replicability** is a problem...
 - and (A) easier **deposit** methods could alleviate it
 - but progress is slow



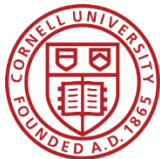
I'm going to argue that...

- Having replicable archives **shifts** the problem...
 - in time: (B) older articles cannot be **linked to data**
 - in scope: (C) curators need **expert help** in documenting the data



A test

LDI “reproducibility” project:
Kingi, Stanichi, Vilhuber (2016, unpublished)
“The Reproducibility of Economics Research”



Kingi, Stanichi, Vilhuber (2016)

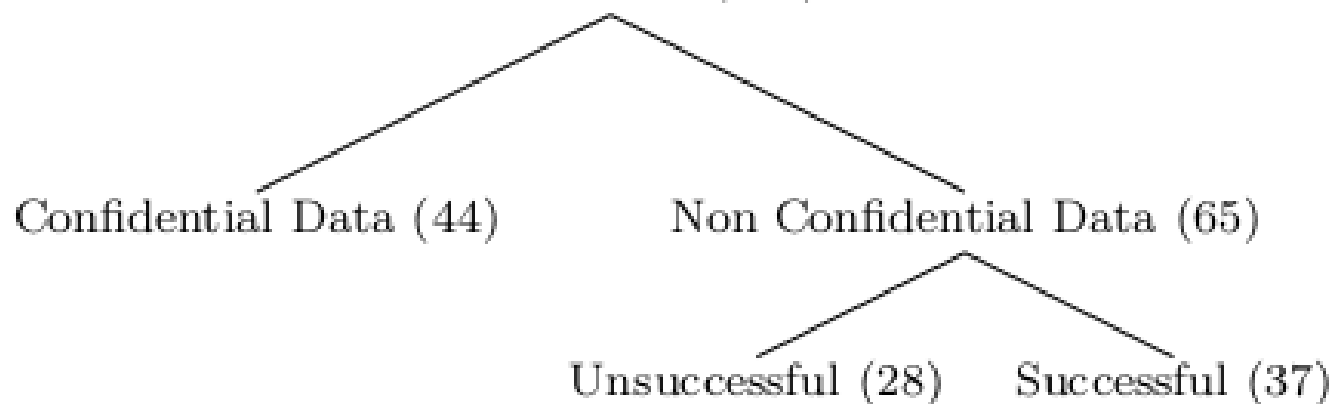
- 109 articles in American Economic Journal: Applied Economics
- Simpler test:

Do the provided data and programs yield the published results?



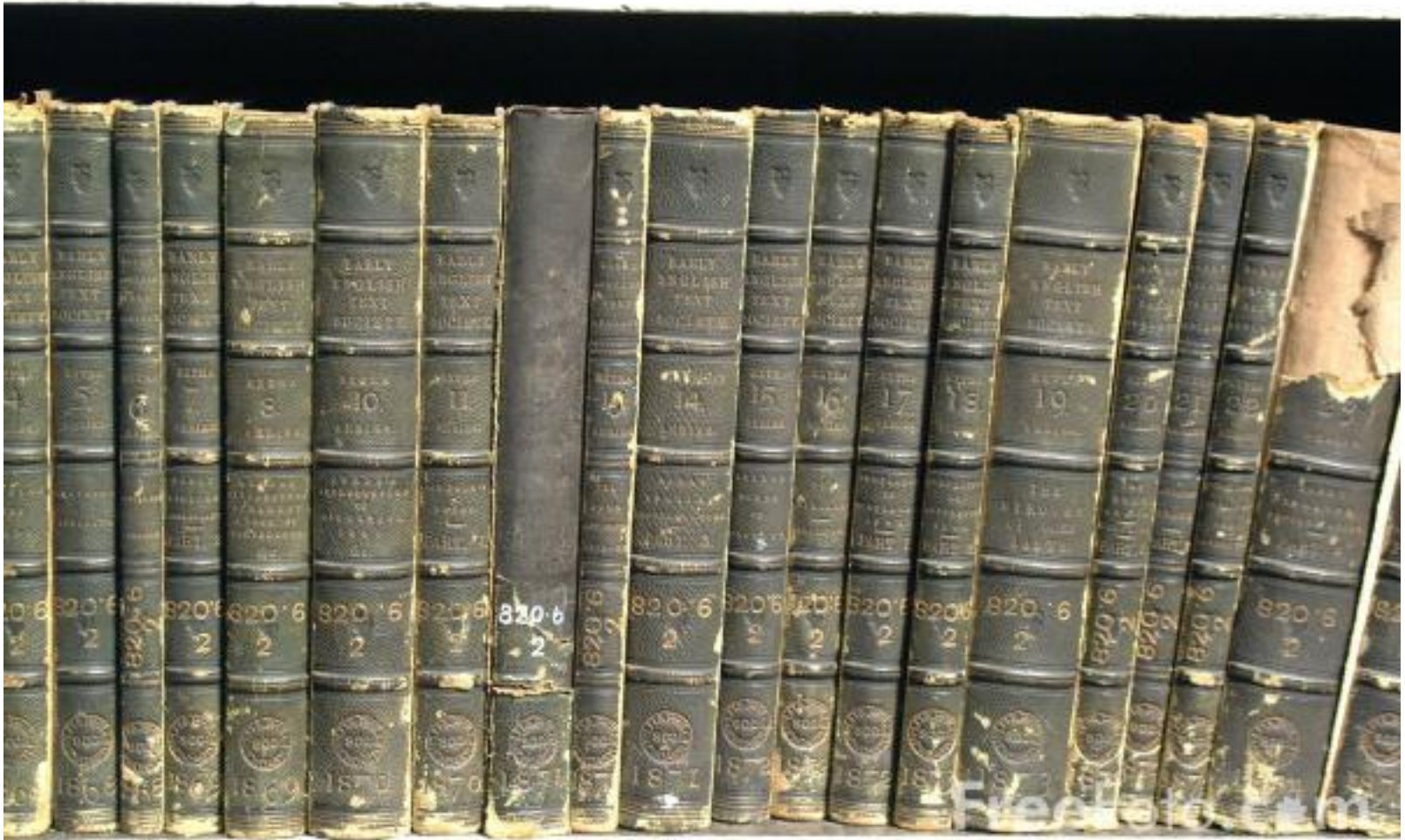
Kingi, Stanchi, Vilhuber (2016)

Figure 1: A Breakdown of the Articles
Total Articles (109)





The old source of knowledge – and data!



- Source: <http://www.thecontrarianmedia.com/2011/08/dispatches-from-the-stacks-15/>
- License unknown







Options are available

- Social and behavioral sciences

Three easy steps: 1. Name your project 2. Upload and describe files 3. Publish your data

open
ICPSR

Share your social and behavioral science research data

Get started now »

[Watch our videos»](#)



Maximize Access

Be recognized and cited



Store Safely

Store your data with confidence



Protect Confidentiality

Ensure confidentiality and privacy



Options are available

- “Research data”



Open source research data repository software



Researchers

Enjoy full control over your data. Receive *web visibility*, *academic credit*, and *increased citation counts*. A personal dataverse is easy to set up, allows you to display your data on your personal website, can be branded uniquely as your research program, makes your data more discoverable to the research community, and satisfies data management plans. [Want to set up your personal dataverse?](#)



Journals

Seamlessly manage the submission, review, and publication of data associated with published articles. Establish an *unbreakable link* between *articles in your journal* and *associated data*. Participate in the open data movement by using Dataverse as part of your journal data policy or list of repository recommendations. [Want to find out more about journal dataverses?](#)



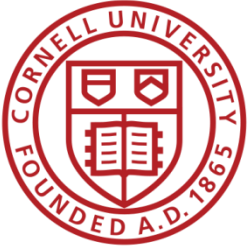
Developers

Participate in a vibrant and growing community that is helping to drive the norms for sharing, preserving, citing, exploring, and analyzing research data. Contribute code extensions, documentation, testing, and/or standards. *Integrate research analysis, visualization and exploration tools*, or other research and data archival systems with Dataverse. [Want to contribute?](#)



Institutions

Establish a research data management solution for your community. Federate with a growing list of Dataverse repositories worldwide for increased discoverability of your community's data. Participate in the drive to set norms for sharing, preserving, citing, exploring, and analyzing research data. [Want to install a Dataverse repository?](#)



Researchers don't use them

Training? Incentives? Ease of use?

A Good Example



Gentzkow, Shapiro, Sinkinson (2014)

- Gentzkow, Matthew, Jesse M. Shapiro, and Michael Sinkinson. 2014. "*Competition and Ideological Diversity: Historical Evidence from US Newspapers.*"
American Economic Review, 104(10): 3073-3114.
DOI: 10.1257/aer.104.10.3073
- Data at <http://doi.org/10.3886/E1361V3>

[Browse Data](#) > Circulation of US Daily Newspapers, 1924, Audit Bureau of Circulations.

Circulation of US Daily Newspapers, 1924, Audit Bureau of Circulations.

Principal Investigator(s) : Gentzkow, Matthew (University of Chicago. Booth School of Business); Shapiro, Jesse (University of Chicago. Booth

Title	Date Entered	File Type
 codebook Gentzkow, Matthew; Shapiro, Jesse; Sinkinson, Michael	2014-04-03 9:08 PM	.txt
 data Gentzkow, Matthew; Shapiro, Jesse; Sinkinson, Michael	2014-04-03 9:09 PM	
 Orig Gentzkow, Matthew; Shapiro, Jesse; Sinkinson, Michael	2014-04-07 1:29 PM	

Citation: Gentzkow, Matthew; Shapiro, Jesse; Sinkinson, Michael. Circulation of US Daily Newspapers, 1924, Audit Bureau of Circulations.. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2014-09-26.
<http://doi.org/10.3886/E1361V3>

Persistent URL: <http://doi.org/10.3886/E1361V3>

Project Description

Summary

The focus of this data collection was the historical circulation and subscription prices of US daily newspapers in 1924. These data are obtained from audit reports obtained from the Audit Bureau of Circulations, an independent organization created to verify circulation. They include circulation by town and delivery channel for each newspaper.

The sample is all audited daily newspapers by the Audit Bureau of Circulations.

All pdfs and extracted .dtas. Copyright belongs to the Audit Bureau of Circulations. We have obtained written permission from the Audit Bureau of Circulations to post the PDFs and data files.



What's good about this?

- Permanent URL
- Availability of
 - Original data
 - Transformed data
 - Open availability
- Easy online inspection



Not Perfect

- Archive at openICPSR not actually tied to article and vice-versa

and Exit on Electoral Politics.” *American Economic Review* 101 (7): 2980–3018.

Gentzkow, Matthew, Jesse M. Shapiro, and Michael Sinkinson. 2014. “Competition and Ideological Diversity: Historical Evidence from US Newspapers: Dataset.” *American Economic Review*. <http://dx.doi.org/10.1257/aer.104.10.3073>.

▶ **George, Lisa, and Joel Waldfogel.** 2003. “Who Affects Whom in Daily Newspaper Markets?” *Journal of Political Economy* 111 (4): 765–84

- Conversely, “online appendix” just a “blob”

Article Full-text Access

[Full-text Article](#)

Additional Materials

[Download Data Set](#) (1.99 GB) | [Online Appendix](#) (148.69 KB) | [Author Disclosure Statement](#) (10.33 KB)

Authors



Journals are starting to use them

Dataverse

About Guides Support Sign Up

AJPS AMERICAN JOURNAL of POLITICAL SCIENCE

American Journal of Political Science (AJPS) Dataverse (Michigan State University) ajps.org

[Harvard Dataverse](#) > **American Journal of Political Science (AJPS) Dataverse**

The *American Journal of Political Science* is committed to significant advances in knowledge and understanding of citizenship, governance, and politics, and to the public value of political science research.

Search this dataverse...

Find [Advanced Search](#)

Add

Dataverses (0)

Datasets (228)

Files (2,066)

Publication Date

2014 (67)

2013 (64)

2015 (61)

2012 (27)

2016 (9)

Author Name

[Broockman, David \(5\)](#)

[Hainmueller, Jens \(5\)](#)

[Huber, Gregory A. \(3\)](#)

[Shor, Boris \(3\)](#)

[Wlezien, Christopher \(3\)](#)

[More...](#)

Keyword Term

[Public opinion \(21\)](#)

[Elections \(19\)](#)

[Representation \(16\)](#)

[Field experiments \(15\)](#)

1 to 10 of 228 Results

Replication Data for: Navigating the Range of Statistical Tools for Inferential Network Analysis

Apr 21, 2016



Cranmer, Skyler; Leifeld, Philip; McClurg, Scott; Rolfe, Meredith, 2016, "Replication Data for: Navigating the Range of Statistical Tools for Inferential Network Analysis", <http://dx.doi.org/10.7910/DVN/2XP8YF>, Harvard Dataverse, V1 [UNF:6:agmQnH86oRB/yOd+p8V4A==]

The last decade has seen substantial advances in statistical techniques for the analysis of network data, and a major increase in the frequency with which these tools are used. These techniques are designed to accomplish the same broad goal, statistically valid inference in the presence of network structure.

Replication Data for: Constitutional Qualms or Politics as Usual? The Factors Shaping Public Support for Unilateral Action

Apr 13, 2016



Kriner, Douglas; Christenson, Dino, 2016, "Replication Data for: Constitutional Qualms or Politics as Usual? The Factors Shaping Public Support for Unilateral Action", <http://dx.doi.org/10.7910/DVN/DSDNX6>, Harvard Dataverse, V1 [UNF:6:Ay1dpM/p9acbKJvOZdaswg==]

The formal institutional constraints that Congress and the courts impose on presidential unilateral action are feeble. As a result, recent scholarship suggests that public opinion may be the strongest check against executive overreach. However, little is known about how the public's views on unilateral action are shaped.

Replication Data for: Can Political Inequalities be Educated Away? Evidence from a Large-scale Reform

Apr 12, 2016



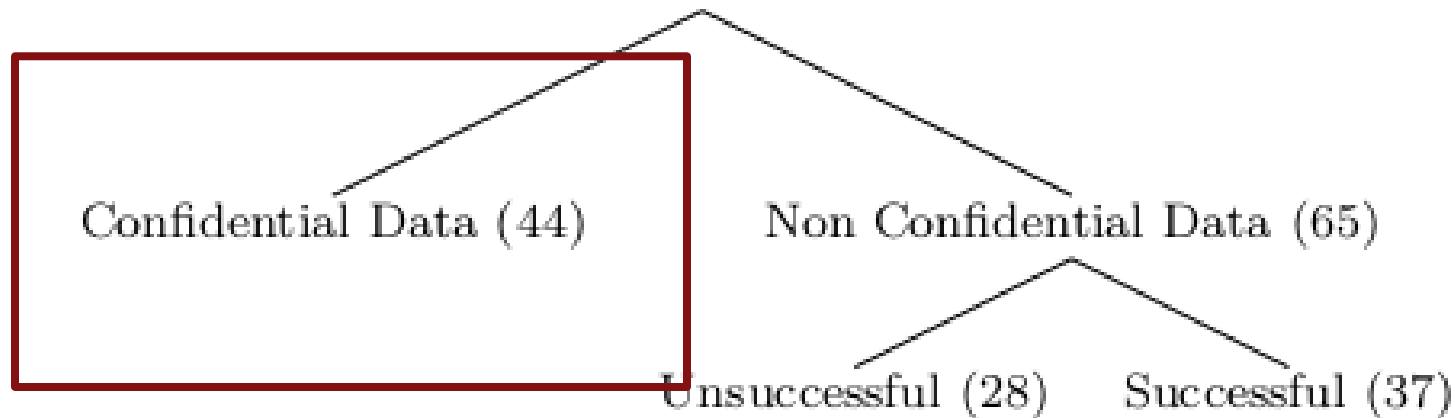
Lindgren, Karl-Oskar; Oskarsson, Sven; Dawes, Christopher, 2016, "Replication Data for: Can Political Inequalities be Educated Away? Evidence from a Large-scale Reform", <http://dx.doi.org/10.7910/DVN/ST0Q1Q>, Harvard Dataverse, V1

Over the years, many suggestions have been made on how to reduce the importance of family background in political recruitment. In this study, we test the effectiveness of a large-scale reform in Sweden that aimed to reduce the importance of family background in political recruitment.



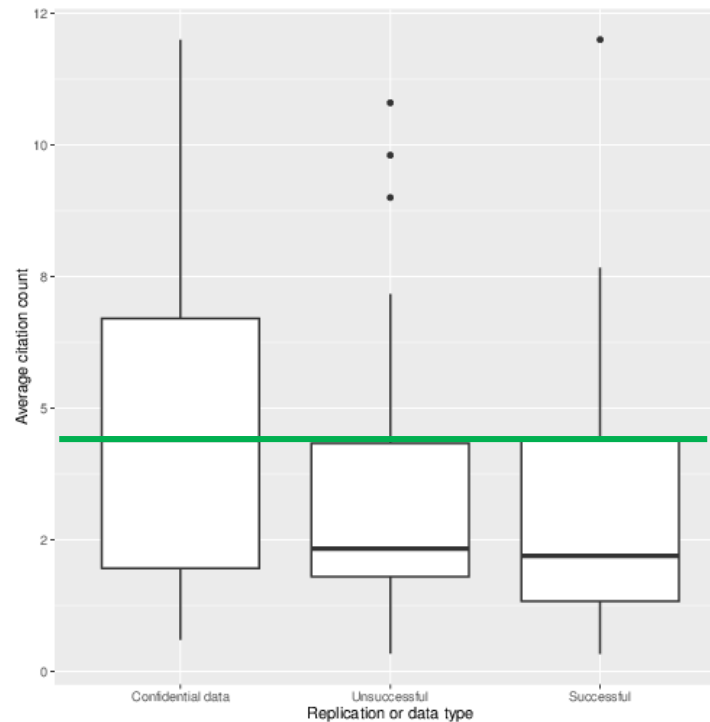
But the biggest problem...

Figure 1: A Breakdown of the Articles
Total Articles (109)



Back to confidential data

- Articles using confidential data are (weakly) more cited than others



But: for confidential data...

- Data is not available
- Metadata is not available
- Programs? So-so...

Should We Just Trust These Guys?





Some are quite commendable

nesstar

- Statistics Canada Public Use Microdata Files (PUMF)
- Fichiers de microdonnées à grande diffusion de Statistique Canada (FMGD)
- Statistics Canada metadata for Master Files (RDC)
 - Aboriginal Children's Survey (ACS)
 - Adult Education and Training Survey (AETS)
 - Aboriginal Peoples Survey (APS)
 - Canadian Community Health Survey (CCHS)
 - Canadian Survey of Experiences with Primary Health Care (CSE-PHE)
 - Canada Survey of Giving, Volunteering and Participating (CSGVP)
 - Canadian Tobacco, Alcohol and Drugs Survey (CTADS)
 - Canadian Tobacco Use Monitoring Survey (CTUMS)
 - Census of Population
 - Ethnic Diversity Survey (EDS)
 - Employment Insurance Coverage Survey (EICS)
 - Survey of Family Expenditures (FAMEX)
 - Follow-up Survey of Giving, Volunteering and Participating (FSGVP)
 - General Social Survey (GSS)
 - 2013 Cycle 27
 - No entries found.
 - 2012 Cycle 26
 - General Social Survey, 2012: Cycle 26, Caregiving and Care Receiving
 - 2011 Cycle 25
 - General Social Survey, 2011: Cycle 25, Family
 - Metadata
 - Study Description
 - * Bibliographic Citation
 - * Study Scope
 - * Methodology And Processing
 - * Data Access
 - Other Documentation
 - Variable Description
 - ...
 - Record identification
 - Person weight
 - Household weight
 - Survey month of data collection
 - Language of interview
 - Regional office used for interviewing
 - Number of telephone numbers in house
 - Excluding cellular phones, this is household's only phone number
 - Excluding cellular phones, number of phone numbers
 - Are any numbers for computer, fax or business use
 - Amount of numbers for computer, fax or business
 - Age of respondent at time of the survey interview
 - Age of respondent at time of the survey interview - AGED
 - Age group of the respondent - groups of 5
 - Age group of the respondent - groups of 10
 - Sex of respondent
 - Marital status of the respondent
 - Age of respondent's spouse - AGEPR
 - Age group of respondent's spouse - groups of 5
 - Age group of respondent's spouse - groups of 10

Dataset: General Social Survey, 2011: Cycle 25, Family

Cycle 25, Family

Variable AGEPRGR5: Age group of respondent's

LITERAL QUESTION

Age group of respondent's spouse/partner (groups of 5).

Values	Categories
1	15 to 19
2	20 to 24
3	25 to 29
4	30 to 34
5	35 to 39
6	40 to 44
7	45 to 49
8	50 to 54
9	55 to 59
10	60 to 64
11	65 to 69
12	70 to 74
13	75 to 79
14	80 years and over
97	Not asked - no spouse/partner in household

SUMMARY STATISTICS

This variable is numeric

UNIVERSE

Respondents who declared having a spouse/partner in household.

NOTES

This variable is suppressed on the public use microdata file.



Even detailed information

Full Title General Social Survey, 2011: Cycle 25, Family								
Subtitle Cycle 25, Family								
Alternative Title GSS 2011: Family								
Parallel Title Enquête sociale générale, 2011: Cycle 25, Famille								
Identification Number ca-statcan-68196								
Authoring Entity <table border="1"> <thead> <tr> <th>Name</th> <th>Affiliation</th> </tr> </thead> <tbody> <tr> <td>Statistics Canada</td> <td>StatCan</td> </tr> </tbody> </table>	Name	Affiliation	Statistics Canada	StatCan				
Name	Affiliation							
Statistics Canada	StatCan							
Producer <table border="1"> <thead> <tr> <th>Name</th> <th>Affiliation</th> <th>Abbreviation</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>Statistics Canada</td> <td></td> <td>StatCan</td> <td></td> </tr> </tbody> </table>	Name	Affiliation	Abbreviation	Role	Statistics Canada		StatCan	
Name	Affiliation	Abbreviation	Role					
Statistics Canada		StatCan						
Copyright Copyright © Statistics Canada, 2012								
Date of Distribution 2012-07-18								
Series Information General Social Survey - Family (GSS) [4501]								
Version 16769.6								



**How many users actually use
that?**



Data documentation is dry

- How reliable is that question?

Dataset: General Social Survey, 2011: Cycle 25, Family

Cycle 25, Family

Variable PA_Q240: Year parents separated

LITERAL QUESTION

In what year did your parents separate?

Values Categories

9997	Not asked
9998	Not stated
9999	Don't know

SUMMARY STATISTICS

This variable is numeric

UNIVERSE

Respondents who answered: PA_Q230 = 1.

NOTES

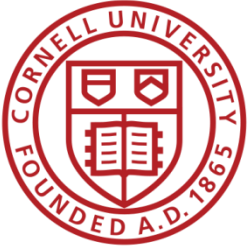
This variable is suppressed on the public use microdata file.



Don't (just) liberate the data!

Liberate the data users!





Our contribution

Leverage researcher knowledge



Our Approach

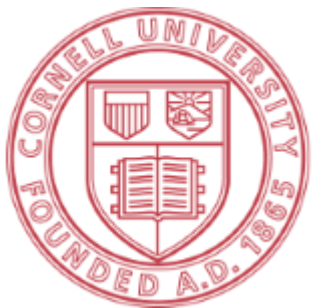
- Rely on open standards, namely the Data Documentation Initiative (DDI) schema
- Provide easy-to-use tools and interfaces to structured metadata
- Build infrastructure that enables data curators to leverage community-driven input to official documentation

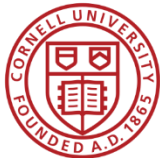


How?

CED²AR

The Comprehensive Extensible Data Documentation and Access Repository





What is CED²AR?

- Metadata curation software
- Designed for documenting existing datasets
- Funded by NSF grant #1131848
- Online at www2.ncrn.cornell.edu/ced2ar-web



What is CED²AR?

CED²AR

Official Server - The Comprehensive Extensible Data Documentation
and Access Repository

[Search Variables](#)
[Browse Variables ▾](#)
[Browse by Codebook](#)
[Documentation](#)
[About](#)

Filter Codebooks



+ NBER CES

National QWI

+ SSB

SynLBD

Search

Searching all codebooks. No filters active.

[Advanced Search](#)

Show variables

Compare Variables



No variables selected



© 2012-2015, Cornell Institute for Social and Economic Research

[Report a Bug](#)

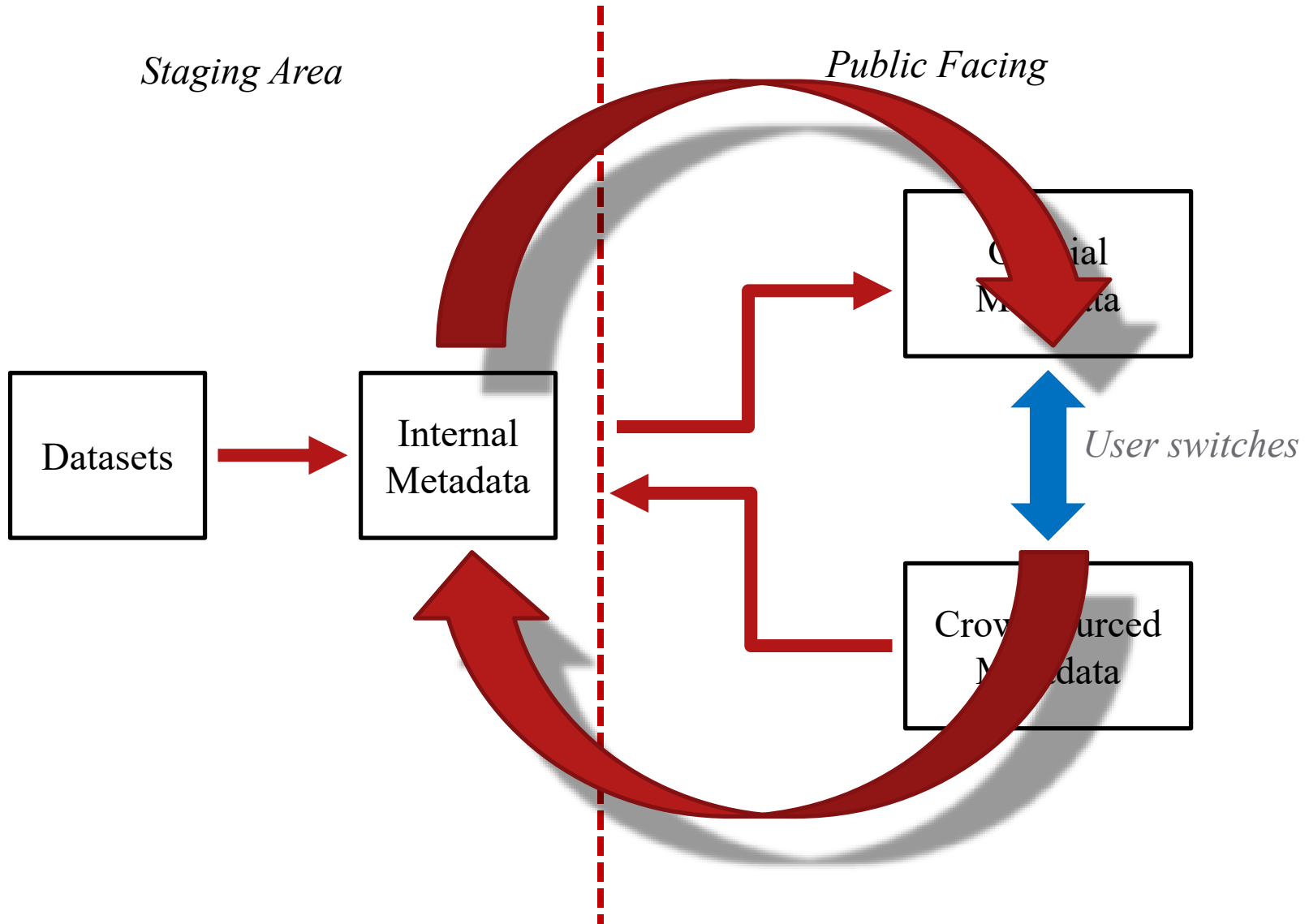
[Email us](#)

[Copyright Information](#)

[NCRN GitHub](#)

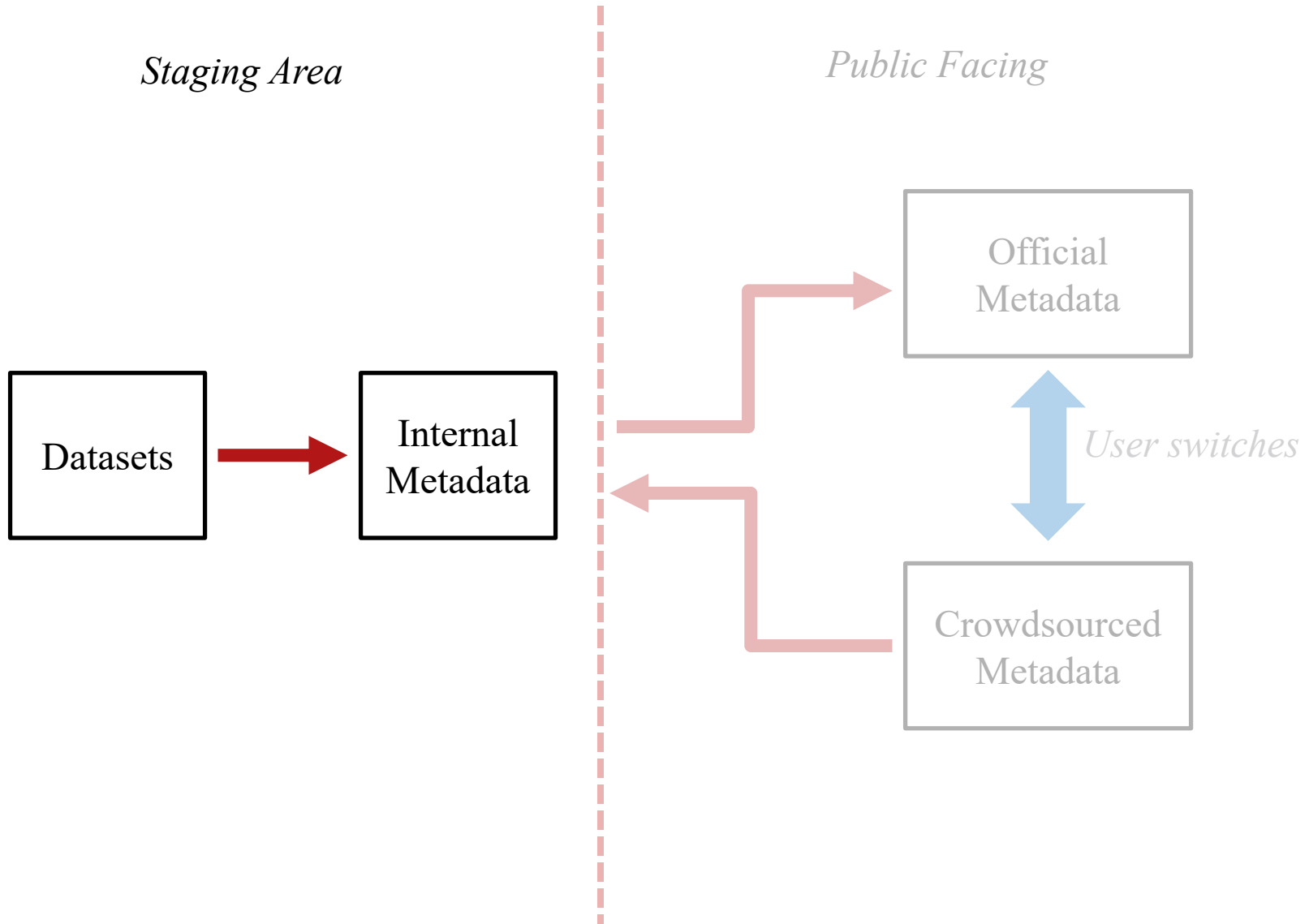


Basic Information Flow





Basic Information Flow





Internal Processing

1. Creation of skeletal metadata

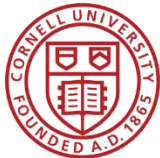
- Assuming data is already curated
- Converting data into standardized metadata
 - Tools included (for SAS, Stata, SPSS, CSV), not discussed here

2. Hand editing and subsetting

- Adding verbose descriptions
- Applying disclosure limitation

3. User accessible

- These tools can be manipulated by normal users
- They could be incorporated into existing workflows



Internal Processing

- Simple editing interface
 - Web-based, with limited rich text features
 - Math allowed (LaTeX)
- Feedback
 - Completeness of codebook?
 - Without technical jargon!
 - Can be tuned



Internal Processing: Hand Editing

Abstract

Save ↶ ↷ 🔗 ☰ *I* <>

The SIPP Synthetic Beta (SSB) is a Census Bureau product that integrates person-level micro-data from a household survey with administrative tax and benefit data. These data link respondents from the Survey of Income and Program Participation (SIPP) to Social Security Administration (SSA)/Internal Revenue Service (IRS) Form W-2 records and SSA records of retirement and disability benefit receipt, and were produced by Census Bureau staff economists and statisticians in collaboration with researchers at Cornell University, the SSA and the IRS. The purpose of the SSB is to provide access to linked data that are usually not publicly available due to confidentiality concerns.

To overcome these concerns, Census has synthesized, or modeled, all the variables in a way that changes the record of each individual in a manner designed to preserve the underlying covariate relationships between the variables. The only variables that were not altered by the synthesis process and still contain their original values are gender and a link to the first reported marital partner in the survey. Seven SIPP panels (1990, 1991, 1992, 1993, 1996, 2001, 2004) form the basis for the SSB, with a large subset of variables available across all the panels selected for inclusion and harmonization across the years. Administrative data were added and some editing was done to correct for logical inconsistencies in the IRS/SSA earnings and benefits data.

p

This field supports ASCII math See [FAQ](#) for details.

provide access to linked data that are usually not publicly available due to confidentiality concerns. To overcome these concerns, Census has synthesized, or modeled, all the variables in a way that changes the record of each individual in a manner designed to preserve the underlying covariate relationships between the variables. The only variables that were



Internal Processing: Scoring

- Provide feedback to improve sparse documentation

CED2AR / SIPP Synthetic Beta v6 / Score

Codebook Score

Variables

100.0% of variables have labels

85.1% of variables have significant full descriptions
Variables without significant full descriptions ... [more](#)

43.0% of variables have values
Variables without values ... [more](#)

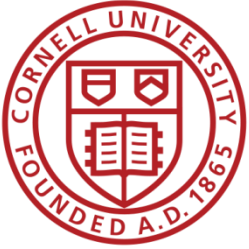
0.0% of variables have summary statistics

Title Page

Missing [related studies](#)
Missing [access conditions](#)
Missing [bibliographic citation](#)
Missing [related publications](#)

Overall Score

80.3%



Fine-grained access controls

Important when working with confidential (meta)data



Internal Processing: Access Control

- Marking elements with different restrictions

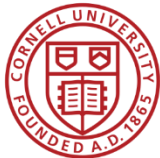
Select what sub-elements to mark

Select All
 Mean
 Median
 Mode
 Valid
 Invalid
 Min
 Max
 Standard Deviation
 Other Summary Statistics

Values
 Value Frequencies
 Value Percentages
 Value Crosstabs
 Other Value Statistics
 Label
 Notes

Select what access level to apply, then check which variables to apply to. Finally, click changes levels.

<input type="checkbox"/>	Variable Name	Label	Top Access Level
<input checked="" type="checkbox"/>	afdc_MN	Indicator for receipt of AFDC or TANF benefits	released
<input checked="" type="checkbox"/>	afdcamt_MN	Amount of AFDC received	released
<input type="checkbox"/>	birthdate	Date of Birth	released
<input type="checkbox"/>	current_enroll_coll	Currently Enrolled in College	released
<input type="checkbox"/>	current_enroll_hs	Currently Enrolled in HS (or less)	released



Workflow control

- Ability to view additions/subtractions
 - Between versions
 - Between crowd-sourced information and official information
- Ability to control access
 - Editing versus viewing
 - Authentication and reputation



Versioning

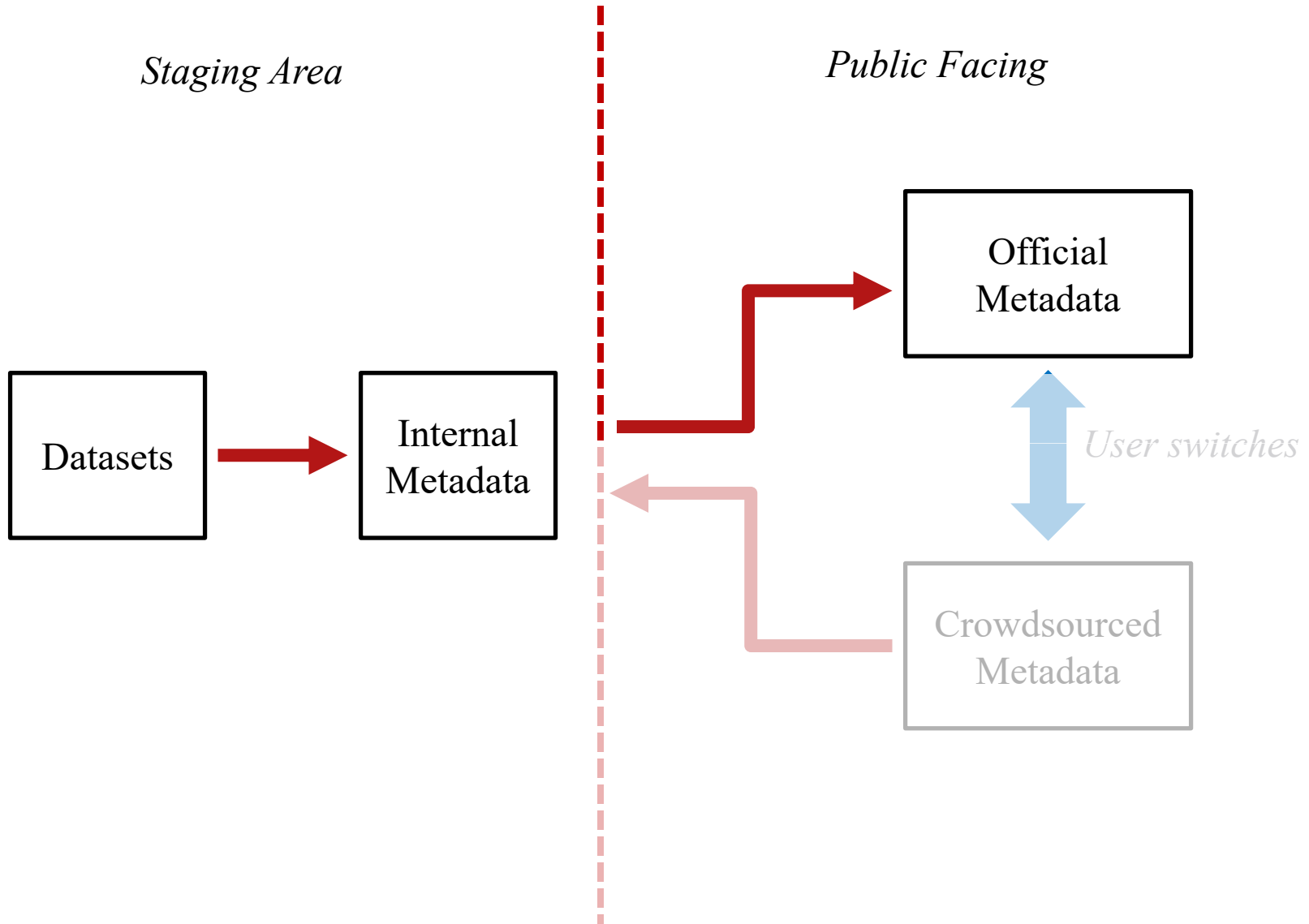
All changes are logged externally via Git

Commits

Author	Commit	Message		Date
tomcat7	0fea515	{ssbv601,lars@vilhuber.com,cover}	ssbtesting	37 minutes ago
tomcat7	5e824de	{ssbv601,lars@vilhuber.com,cover}{ssbv601,lars@vilhuber.com,var,fl...	ssbtesting	an hour ago
tomcat7	c03c50f	Committing codebooks retrieved directly from BaseX	cestesting	4 days ago
venkata	a61abe3	{testlbdv1,anonymous,edit}	vrk4	4 days ago
venkata	5b1e51e	{testlbdv1,anonymous,edit}	vrk4	4 days ago
tomcat7	5edbff9	{acs2009,bap63@cornell.edu,edit}	cestesting	5 days ago
tomcat7	d66d3d4	{ssbv601,lorireeder@gmail.com,var,plus_ssdi_benefit_totamt_k}{ss...	ssbtesting	5 days ago
tomcat7	1f845c1	{siabv1,warren.brown48@gmail.com,cover}{siabv1,bap63@cornell.e...	cestesting	5 days ago
tomcat7	eb77f31	{siabv1,warren.brown48@gmail.com,var,bild}{siabv1,warren.brown4...	cestesting	2015-11-17
tomcat7	b34a118	{siabv1,warren.brown48@gmail.com,var,persnr}{siabv1,warren.brow...	cestesting	2015-11-17
venkata	2cb6d7d	{lbdv2,anonymous,cover}	vrk4	2015-11-17
tomcat7	1263bcf	{siabv1,warren.brown48@gmail.com,var,bnn}{siabv1,warren.brown4...	cestesting	2015-11-17
tomcat7	aaf94f1	{siabv1,bap63@cornell.edu,edit}{blss2011,bap63@cornell.edu,edit}{...	cestesting	2015-11-17
tomcat7	0e52a6e	Committing codebooks retrieved directly from BaseX	cestesting	2015-11-17

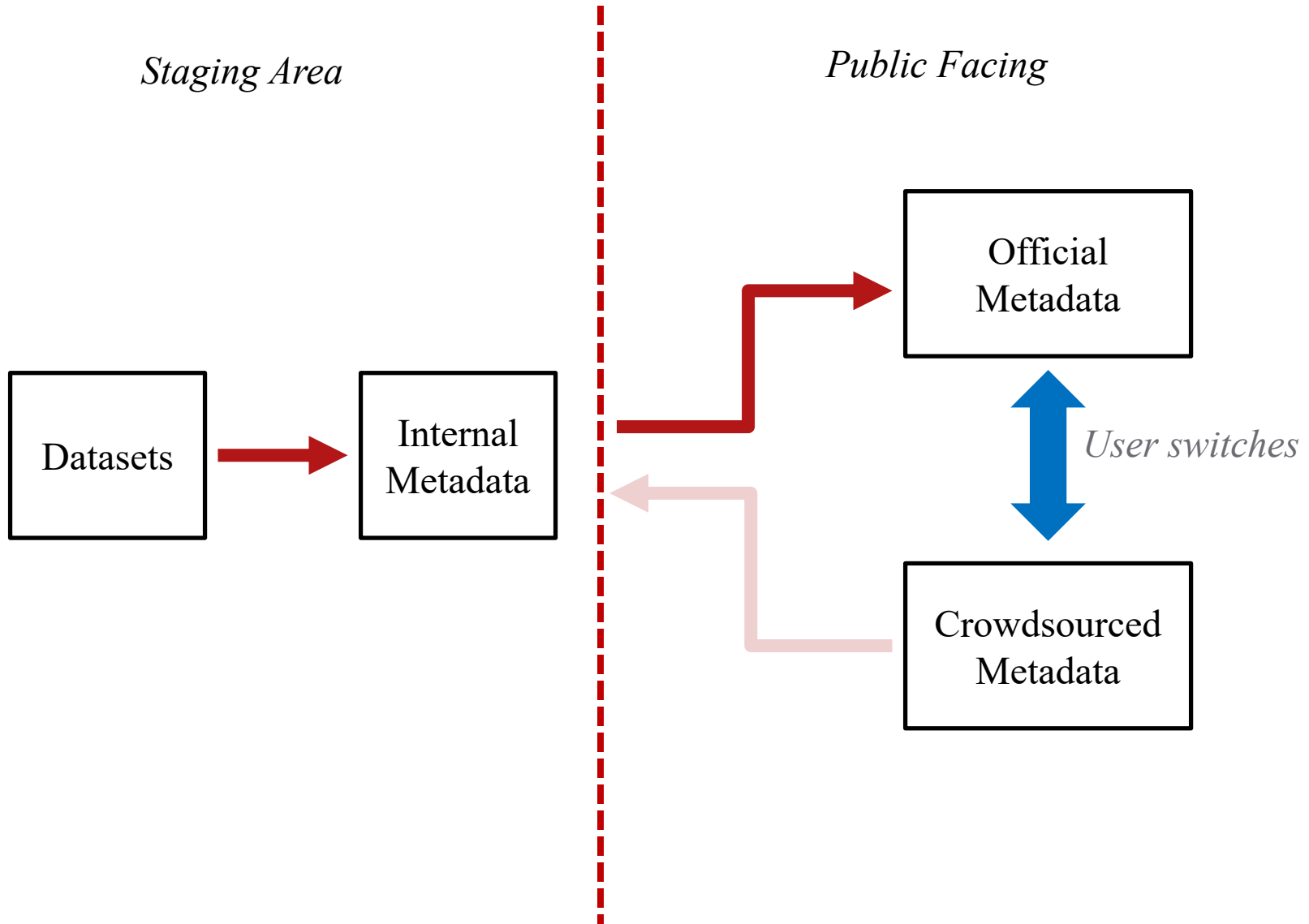


Basic Information Flow





Basic Information Flow





Official view

CED²AR

Official Server - The Comprehensive Extensible Data Documentation and Access
Repository

Search Variables

Browse Variables ▾



You are viewing the official *crowdsourced contributions*.

[CED2AR](#) / SIPP Synthetic Beta

SIPP Synthetic Beta v6.02

[View Variables](#) (123 variables)

Last update to metadata: 2015-11-24 10:05:15 (upload date)

Document Date: November 12, 2015

Codebook prepared by: Cornell NSF-Census Research Network

Data prepared by: United States Department of Commerce. Bureau of the Census.

Data Distributed by:

Labor Dynamics Institute

<http://www2.vrdc.cornell.edu/news/data/sipp-synthetic-beta-file/>

United States Department of Commerce. Bureau of the Census.

<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>



Crowdsourced view

CED²AR

Community Development Server (Beta) - The Comprehensive Extensible Data
Documentation and Access Repository



You are viewing crowdsourced metadata. View the [official version](#).

SIPP Synthetic Beta



v6.02

[View Variables](#) (123 variables)

Last update to metadata: 2015-11-24 09:59:07 (auto-generated)

Document Date: November 12, 2015

Codebook prepared by: Cornell NSF-Census Research Network

Data prepared by: United States Department of Commerce. Bureau of the Census.

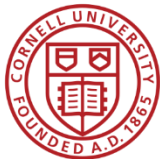
Data Distributed by:

Labor Dynamics Institute

<http://www2.vrdc.cornell.edu/news/data/sipp-synthetic-beta-file/>

United States Department of Commerce. Bureau of the Census.

<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>



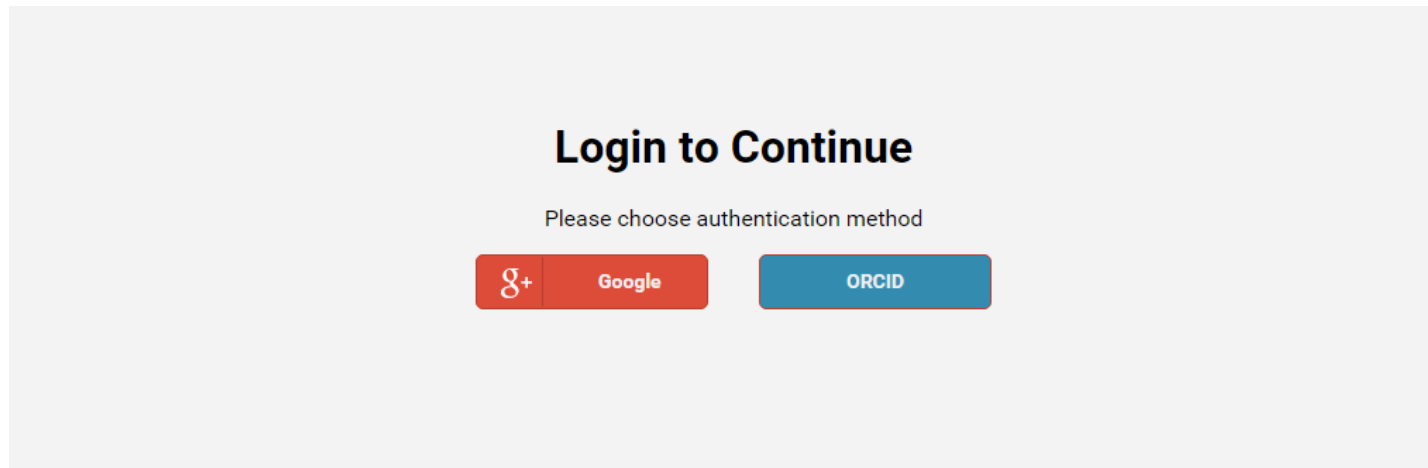
Authentication and Attribution

- When opening up contributions to a wide audience, how to triage between “rants” and meaningful contributions?
- Here: Use of ORCID (academic network) for authentication
- Public attribution with link to (verified) academic ID is key for positive feedback (your effort is recognized) and prevention of negative contribution (your rant is traceable to you!)



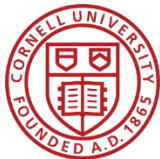
Authentication

- Supports OpenID and OAuth2
 - Currently using Google and ORCID with OAuth2
 - Developing connectors to work with additional providers
- CED²AR handles identity management





Editing made easy



You are viewing crowdsourced metadata. View the [official version](#).

[CED2AR](#) / SIPP Synthetic Beta v6.02

SIPP Synthetic Beta v6.02

[View Variables](#) (123 variables)

[View codebook score](#)


Last update to metadata: 2016-01-26 14:36:26 (auto-generated) 

Document Date: November 12, 2015  

Codebook prepared by: Cornell NSF-Census Research Network   

Data prepared by: United States Department of Commerce. Bureau of the Census.   

Data Distributed by:

Labor Dynamics Institute  

<http://www2.vrdc.cornell.edu/news/data/sipp-synthetic-beta-file/> 

United States Department of Commerce. Bureau of the Census.  

<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html> 



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[CED2AR](#) / [SIPP Synthetic Beta v6.02](#) / [totearn_ser_YYYY](#)

Variable Name	totearn_ser_YYYY
Top Access Level	released
Label	SER: Capped Earnings from all FICA-covered jobs Access Level: released
Codebook	SIPP Synthetic Beta v6.02
Concept	
Type	numeric
Question Text	
Full Description	

Person-level annual earnings that were taxed by FICA; these variables include earnings only up to the FICA taxable maximum and cover the years 1951-2011. These earnings are the inputs for calculating the OASDI benefit a person and his or her spouse will receive upon retirement or disability.

Files

ssb_v6_0_synthetic1_1.sas7bdat <http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html> (SAS)

ssb_v6_0_synthetic1_1.dta <http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html> (Stata)



Notes

Note #1 - Access Level: released 

Having a 0 value on `totearn_ser_yyyy` could mean a couple of things: 1) this individual had no FICA-covered earnings in that year; 2) this individual had no labor income at all in this tax year; 3) this individual worked for an employer that failed to report earnings in this year (that is to say, this has nothing to do with whether a person filed taxes because the earnings are reported by the employer, not the employee). Prior to 1978, if a person has \$0 earnings on the Summary Earnings Record (SER), there's really no way of knowing whether they had no earnings or whether they had non-FICA earnings because the SER only reports FICA-covered earnings reported by employers. For years 1978 and later, you can compare the SER to the Detailed Earnings Record (DER). The DER captures all earnings subject to income tax, so both FICA and non-FICA earnings are reported on the DER.

If you are looking at earnings in earlier years, particular the 1960s and earlier, there will be more people with \$0 earnings because many jobs were not FICA-taxable then. Even today, there are some instances of legitimate non-FICA earnings that would not be reflected on the SER. One example of this is that graduate student stipends are not taxed for FICA or Medicare, so these earnings would not be reflected on the SER (<https://www.irs.gov/Charities-Non-Profits/Student-Exception-to-FICA-Tax>).



 *Add Note*



Type

numeric

Notes



Save ↶ ↷ 🔗 ☰ *I* <>

Having a 0 value on `totearn_ser_yyyy` could mean a couple of things: 1) this individual had no FICA-covered earnings in that year; 2) this individual had no labor income at all in this tax year; 3) this individual worked for an employer that failed to report earnings in this year (that is to say, this has nothing to do with whether a person filed taxes because the earnings are reported by the employer, not the employee). Prior to 1978, if a person has \$0 earnings on the Summary Earnings Record (SER), there's really no way of knowing whether they had no earnings or whether they had non-FICA earnings because the SER only reports FICA-covered earnings reported by employers. For years 1978 and later, you can compare the SER to the Detailed Earnings Record (DER). The DER captures all earnings subject to income tax, so both FICA and non-FICA earnings are reported on the DER.

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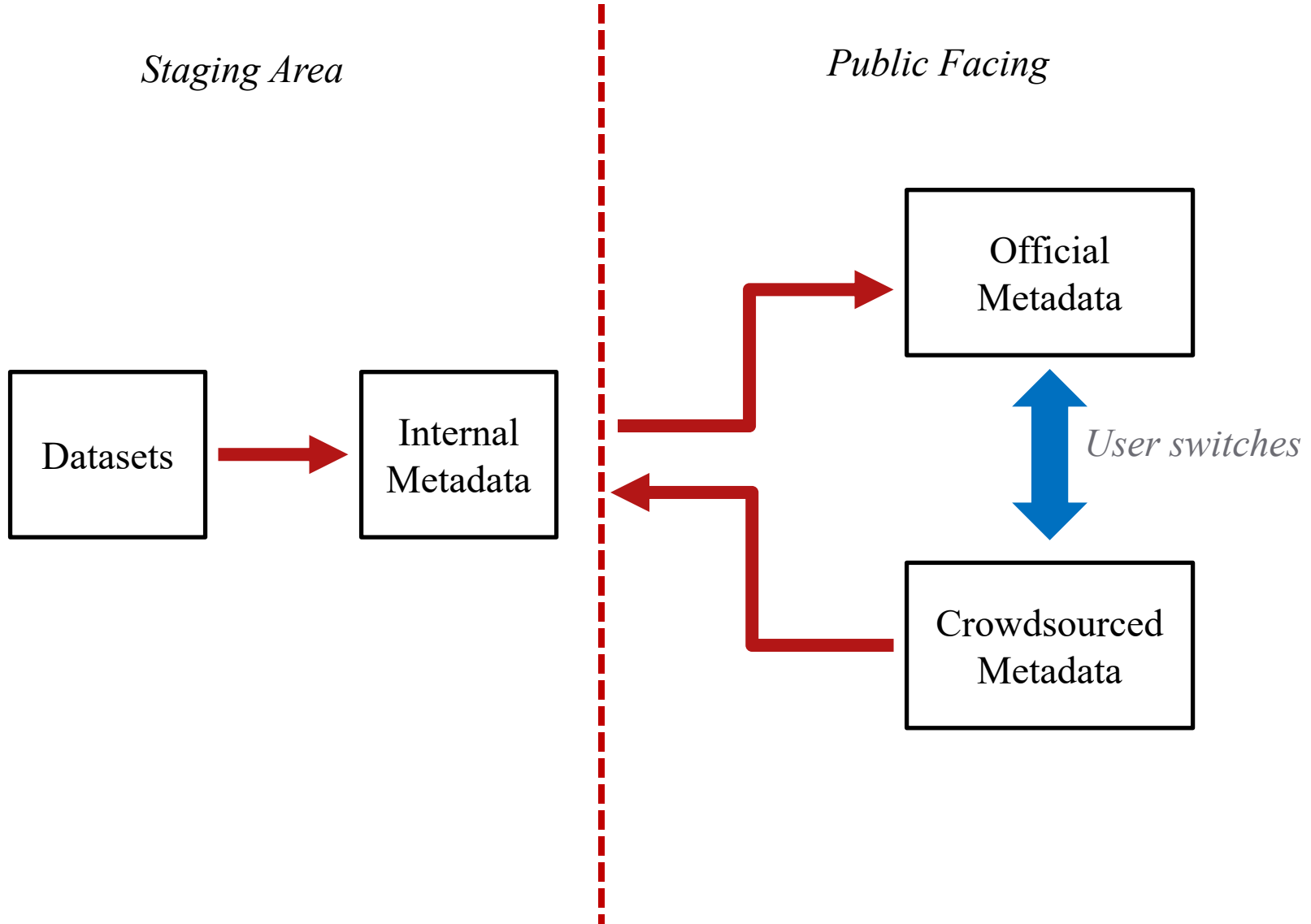
p

This field supports ASCII math See [FAQ](#) for details.

Having a 0 value on `totearn_ser_yyyy` could mean a couple of things: 1) this individual had no FICA-covered earnings in that year; 2) this individual had no labor income at all in this tax year; 3) this individual worked for an employer that failed to report earnings in this year (that is to say, this has nothing to do with whether a person filed taxes because the earnings are reported by the employer, not the employee). Prior to 1978, if a person has \$0 earnings on the



Basic Information Flow





Everybody can see changes

CED2AR / SIPP Synthetic Beta v602 / totearn_ser_YYYY / Difference

Remote

Variable Name	totearn_ser_YYYY
Label	SER: Capped Earnings from all FICA-covered jobs
Codebook	SIPP Synthetic Beta v6.02
Concept	
Concept Vocabulary	
Concept Vocabulary URI	
Type	numeric
Files	

ssb_v6_0_2_syntheticK_M.sas7bdat
<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>
 SAS

ssb_v6_0_2_syntheticK_M.dta
<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>
 Stata

Question Text

Full Description

Person-level annual earnings that were taxed by FICA; these variables include earnings only up to the FICA taxable maximum and cover the years 1951-2011. These earnings are the inputs for calculating the OASDI benefit a person and his or her spouse will receive upon retirement or disability.

Notes (0 total)

Current

Variable Name	totearn_ser_YYYY
Label	SER: Capped Earnings from all FICA-covered jobs
Codebook	SIPP Synthetic Beta v6.02
Concept	
Concept Vocabulary	
Concept Vocabulary URI	
Type	numeric
Files	

ssb_v6_0_synthetic1_1.sas7bdat
<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>
 SAS

ssb_v6_0_synthetic1_1.dta
<http://www.census.gov/programs-surveys/sipp/methodology/sipp-synthetic-beta-data-product.html>
 Stata

Question Text

Full Description

Person-level annual earnings that were taxed by FICA; these variables include earnings only up to the FICA taxable maximum and cover the years 1951-2011. These earnings are the inputs for calculating the OASDI benefit a person and his or her spouse will receive upon retirement or disability.

Notes (1 total)

#1

Having a 0 value on totearn_ser_yyyy could mean a couple of things: 1) this individual had no FICA-covered earnings in that year; 2) this individual had no labor income at all in this tax year; 3) this individual worked for an employer that failed to report earnings in this year (that is to say, this has nothing to do with whether a person filed taxes because the earnings are reported by the employer, not the employee). Prior to 1978, if a person has \$0 earnings on the Summary Earnings Record (SER), there's really no way of knowing whether they had no earnings or whether they had non-FICA earnings because the SER only reports FICA-covered earnings reported by employers. For years 1978 and later, you can



Combining Knowledge: Merging

- Curators are given an interface to merge crowdsourced documentation with official

Merge Variables

The following variables have changed:

cur_endmar

birthdate

Continue



Combining Knowledge: Merging

current_enroll_coll

Crowdsourced Documentation

Variable Name	current_enroll_coll
Label	Currently Enrolled <u>in College</u>
Codebook	SIPP Synthetic Beta v6
Concept	
Concept Vocabulary	
Concept Vocabulary URI	
Type	numeric
Files	

Official Documentation

Variable Name	current_enroll_coll
Label	<input type="checkbox"/> Use crowdsourced <input type="checkbox"/> Use original Currently Enrolled
Codebook	SIPP Synthetic Beta v6
Concept	
Concept Vocabulary	
Concept Vocabulary URI	
Type	numeric
Files	



Combining Knowledge: Merging

Crowdsourced Documentation

Last update to metadata: 2015-08-18 08:43:01 (upload date)

Document Date:

June 15~~8~~, 2014

Citation

Please cite this codebook as:

Comprehensive Extensible Data Documentation and Access Repository. Codebook for the SIPP Synthetic Beta 5.1 [Codebook file]. Cornell Institute for Social and Economic Research and Labor Dynamics Institute [distributor]. Cornell University, Ithaca, NY, 2013

Please cite this dataset as:

U.S. Census Bureau. SIPP Synthetic Beta: Version 5.1 [Computer file]. Washington DC; Cornell University, Synthetic Data Server [distributor], Ithaca, NY, 2013

Abstract

The SIPP Synthetic Beta (SSB) is a Census Bureau product that integrates person-level micro-data from a household survey with administrative tax and benefit data. These data link respondents from the Survey of Income and Program Participation (SIPP) to Social Security Administration (SSA) Internal Revenue Service (IRS) Form W-2 records and SSA

Official Documentation

Last update to metadata: 2015-10-23 11:12:44 (auto-generated)

Document Date:

Use crowdsourced

Use original

June 15, 2014

Citation

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Please cite this dataset as:

U.S. Census Bureau. SIPP Synthetic Beta: Version 5.1 [Computer file]. Washington DC; Cornell University, Synthetic Data Server [distributor], Ithaca, NY, 2013

Abstract

Use crowdsourced

Use original

The SIPP Synthetic Beta (SSB) is a Census Bureau product that integrates person-level micro-data from a household survey with administrative tax and benefit data. These data link respondents from the Survey of Income and Program Participation (SIPP) to Social



Combining Knowledge: Citations

- Contributors can be tracked for each of their changes

CED2AR / SIPP Synthetic Beta v6.01 / Variable Versions

Modified Variables

<u>Variable Name</u>	<u>Date Changed</u>	<u>Commit Message</u>	<u>User</u>	<u>Origin</u>
phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
pos_phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
pos_phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
pos_phus_retire_benefit_totamt	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change
pos_phus_ssdi_benefit_totamt_k	November 18, 2015 at 11:15 AM	View commit	lorireeder@gmail.com	Remote Change



Combining Knowledge: Citations



1,757,580 ORCID iDs and counting. See more...

Lars Vilhuber

ORCID ID

 orcid.org/0000-0001-5733-8932

› Education (3)

› Employment (1)

› Funding (7)

▼ Works (29)

↕ Sort

CED²AR: The Comprehensive Extensible Data
Documentation and Access Repository

IEEE/ACM Joint Conference on Digital Libraries

2014-09 | conference-paper

DOI: [10.1109/jcdl.2014.6970178](https://doi.org/10.1109/jcdl.2014.6970178)

Source: CrossRef Metadata Search



 Preferred source



Next steps



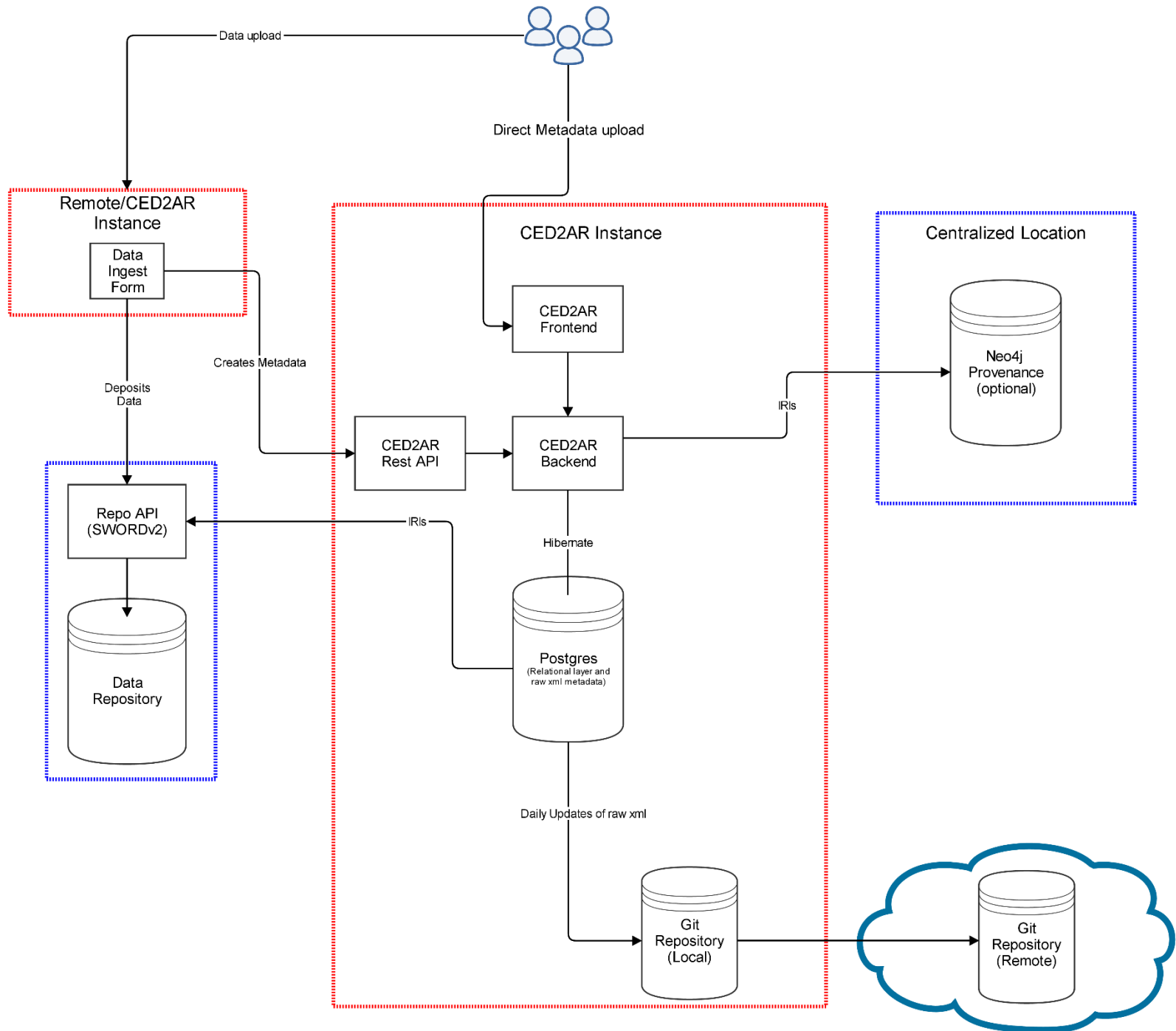
Making CED²AR v2 robust

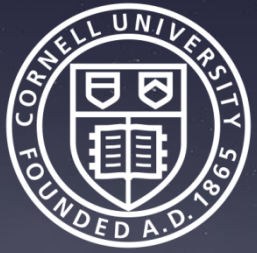
- Addition of UTF-8 editing support (Spanish, French, Portuguese, etc.)
- Additional fields (link to survey questions, anything within DDI-C)
- Bug fixes



Making CED²AR scalable in V3

- Current implementation of CED²AR is packaged for a single server (=portable)
 - Already a scalable archive backend (git)
 - Could be fronted by a load balancer
 - But live server is not scalable
- Current implementation of CED²AR is tied to a limited schema – adding schema is hard





Thank you!
Questions?

ced2ar-devs-1@cornell.edu