

SHARING DATA TO ADVANCE SCIENCE

Every Dataset has a Story

Sarah Rush & John Marcotte ICPSR, University of Michigan IASSIST 2018





Every Dataset has a Story

- Studies that generate research data often have fascinating histories
- Motivations behind a data collection can enhance understanding
- Stories *about* data can encourage analysis
- Stories can engage the research community



Every Dataset has a Story

- 1. Background
- 2. Contributors
- 3. Engagement
- 4. Stories
- 5. Next Steps
- 6. Questions



1. Background: Past

- Downloading has historically been the primary communication between researchers and data archives
- Bandwidth limitations have been an impediment



1. Background: Present

- Bandwidth limitations are no longer a concern
- People have Internet access in their pockets
- Options for interactive communication have increased (e.g. forums, social media)
- Opportunity for increased knowledge sharing and transparency



1. Background: Archives

Changing role of Archives

- Traditional: Providers of data and codebooks
- Emerging: Active facilitators of research
 - Data discovery tools (e.g., variable search)
 - Online Analysis
 - Bibliography of Data-related Literature
 - Data usage aids (e.g., Data Guides,

Data Driven Learning Guides)

Virtual Data Enclave for restricted data



1. Background: Archives

Evolving relationships with data providers and data users

- Interactive
- Multiway communication and contributions

Data Providers \longleftrightarrow Archives \longleftrightarrow Data Users



2. Contributors

How can we use these evolving relationships to engage data users and enhance secondary data analysis?



2. Contributors: Data Providers

Partner with Principal Investigators to provide:

- Background beyond standard metadata
- Tips on approaching data
- Reasons data were collected



2. Contributors: Data Users

- Encourage sharing of study-related materials that can enhance documentation and metadata:
 - Narratives on how data were selected and analyzed
 - Syntax
 - Scales
 - Notes on working with specific datasets (e.g., overcoming obstacles)



2. Contributors: Benefits

- Builds a support community for data
- Enriches scientific enterprise as well as specific datasets
- Provides a way for data users to give back



2. Contributors: Benefits

- Promotes data analysis and the importance of data
- •Brings data "to life," particularly for novice researchers; helps them see possibilities
- Research builds on research
- Inspire new research



3. Engagement

- Data Sharing for Demographic Research (DSDR) at ICPSR is collecting:
 - Mini interviews with study PIs about their research and why data were collected
 - Stories from data users about their experience analyzing data
- Interviews and stories will be incorporated into the website and promoted on social media
- Stories are just the start!



3. Engagement: Goal

To encourage and enable end-user contributions, thereby *facilitating* and *enhancing* secondary data analysis



4. Stories



John Marcotte, DSDR Director

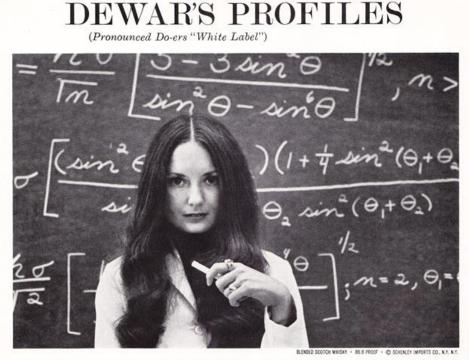
Learn how DSDR data are being used

Data User Stories

more PI Profiles

- Collected stories will be featured on the DSDR home page as way to engage data users
- Potential to entice website visitors to learn more about studies and data usage

Dewar's Example:



SHEILA ANN T. LONG

HOME: Hampton, Virginia

AGE: 28

PROFESSION: Physicist

HOBBIES: Ballet, Sailing, Car Racing, Chess

LAST BOOK READ: "Beyond Freedom and Dignity"

LAST ACCOMPLISHMENT: Member of the team of international scientists who are mapping earth's electromagnetic field for the first time

QUOTE: "Scientific research in all fields has been a prime contributor to America's greatness. Let us not forget this in our concern for the dying environment, for Technology holds the very means to save it."

PROFILE: Brilliant, beautiful, in love with life. Involved, and unintimidated by difficult challenge. Saluted by *New Woman* magazine as one of the 26 women who "made it big in their twenties."

SCOTCH: Dewar's "White Label"



Authentic. There are more than a thousand ways to blend whiskles in Scotland, but few are authentic enough for Dewar's "White Label." The quality standards we set down in 1846 have never varied. Into each drop goes only the finest whiskles from the Highlands, the Lowlands, the Hebrides. Dewar's never varies.

Similar Profile to Dewar's:



Profiles

John E. Marcotte, Ph.D.

Home State: Michigan

Position(s): Archivist & Clinical Adjunct

Research Focus: Data Security, Disclosure, Nursing Staffing

Profile: Director of Data Sharing for Demographic Research (DSDR) at ICPSR

Currently working on: Disclosure Risk with Administrative Data

Last Book Read: Big Data: A Revolution That Will Transform How We Live, Work, and Think

Quote: "Show me the data!"

How did you become involved with the study you deposited with DSDR?

My project has had a series of principal investigators. When the project needed a new P.I., my experience and expertise were a good fit.

What are your major findings?

Disclosure protections for organizations is a growing concern.

Now that these data are available to other researchers, what advice would you give for those analyzing the contents of the study?

The best research builds on previous work. Team science is better science. Reach out to collaborators in different disciplines.

What excites you about being a researcher?

Being able to provide data that informs health outcomes and public policy

What factors contributed to your decision to deposit data with DSDR?

DSDR adds value to data in addition to providing access.

Data Archive: DSDR!

4. Stories: Data Providers

- Features work of Data Provider in interview format
- Opportunity for Data Provider to promote study to new and repeat users of data
- To be incorporated into DSDR website in multiple areas: home page, study page, interviews page



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(DSDR) at ICPSR

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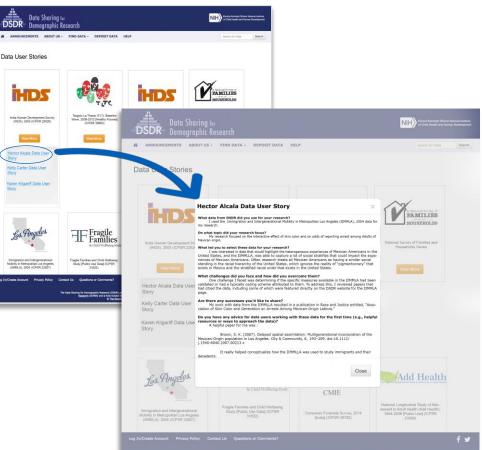
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4. Stories: Data Users

- Highlights secondary analysis of data in DSDR
- Opportunity for Data Users to promote research and talk about experience
- To be incorporated into DSDR website in multiple areas: home page, study page, data stories page



4. Stories: Data Users

Hector Alcala Data User Story

What data from DSDR did you use for your research?

I used the Immigration and Intergenerational Mobility in Metropolitan Los Angeles (IIMMLA), 2004 data for my research.

On what topic did your research focus?

My research focused on the interactive effect of skin color and on odds of reporting arrest among Adults of Mexican origin.

What led you to select these data for your research?

I was interested in data that would highlight the heterogeneous experiences of Mexican Americans in the United States, and the IIMMLLA, was able to capture a lot of social stratifies that could impact the experiences of Mexican Americans. Often research treats all Mexican Americans as having a similar social standing in the racial hierarchy of the United States, which ignores the reality of "pigmentocracy" that exists in Mexico and the stratified racial order that exists in the United States.

What challenges did you face and how did you overcome them?

One challenge I faced was determining if the specific measures available in the IIMMLA had been validated or had a typically coding scheme attributed to them. To address this, I reviewed papers that had citied the data, including some of which were featured directly on the DSDR website for the IIMMLA page.

Are there any successes you'd like to share?

My work with data from the IIMMLLA resulted in a publication in Race and Justice entitled, "Association of Skin Color and Generation on Arrests Among Mexican-Origin Latinos."

Do you have any advice for data users working with these data for the first time (e.g., helpful

resources or ways to approach the data)?

A helpful paper for me was :

Brown, S. K. (2007). Delayed spatial assimilation: Multigenerational incorporation of the Mexican-Origin population in Los Angeles. City & Community, 6, 193-209. doi:10.1111/

j.1540-6040.2007.00213.x

It really helped conceptualize how the IIMMLLA was used to study immigrants and their

decedents.

Data User Stories

5. Next Steps

- Launch Data Stories feature on DSDR website <u>DSDR.ICPSR.UMICH.EDU</u>
- Promote feature and acquire additional PI interviews and data user stories
- Seek additional user contributions such as syntax, scales, and notes on working with specific datasets



6. Questions



Contact Information

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