



Leveraging Data using a Diversity, Equity and Inclusion (DEI) Lens



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mines.edu/diversity

When do we use data about people?



Mines Challenge Program – July 2021





How could we effectively present data about people?

“

Applying a DEI lens to how we analyze, visualize, and communicate data requires empathizing with both the communities whose data we are visualizing as well as the readers and target audiences for our work. ”

Urban Institute, page 4 – Do No Harm Guide



Examples of Demographic Categorizations in the US

Ethnicity – specifically Hispanic

- 1930 Census had “Mexican” race category
- Undercount of individuals in 1970 Census – question poorly worded
 - “Spanish Origin Advisory Committee” – tackle the census questions
 - G. Cristina Mora, Associate Professor of Sociology at the University of California, Berkeley – “fight for recognition” and “administrative quandary”

First-Generation Students

- Ever changing and evolving definitions and applications
 - First in family to attend college
 - Parents don’t have baccalaureate degree
 - Parents have no education after high school

- **Making Hispanics: How Activists, Bureaucrats, and Media Constructed a New American.** By G. Cristina Mora. Chicago: University of Chicago Press, 2014.
- **Does Hispanic Heritage Month need a Rebrand?** By Isabelia Herrera. The New York Times. September 14, 2019
- **Census History: Counting Hispanics.** By D’Vera Cohn. Pew Research Center. March 3, 2010
- **Fast Facts Report for the Educational Opportunity Centers Program.** TRIO Program. 2018-2019
- **Defining First-Generation.** Center for First-Generation Student Success. November 20, 2017.



What we've learned along the way...

Some standard practices

1. Collect what's necessary
2. Demographics at the end
3. Data Order
4. Use of "Other"

To which ethnicity do you most identify?

- ☐ Hispanic, Latino, Latina, Latinx
- ☐ Not Hispanic, Latino, Latina, or Latinx
- ☐ Prefer not to respond
- ☐ Prefer to self-identify (click and type response)

To which race(s) do you most identify? Select all that apply.

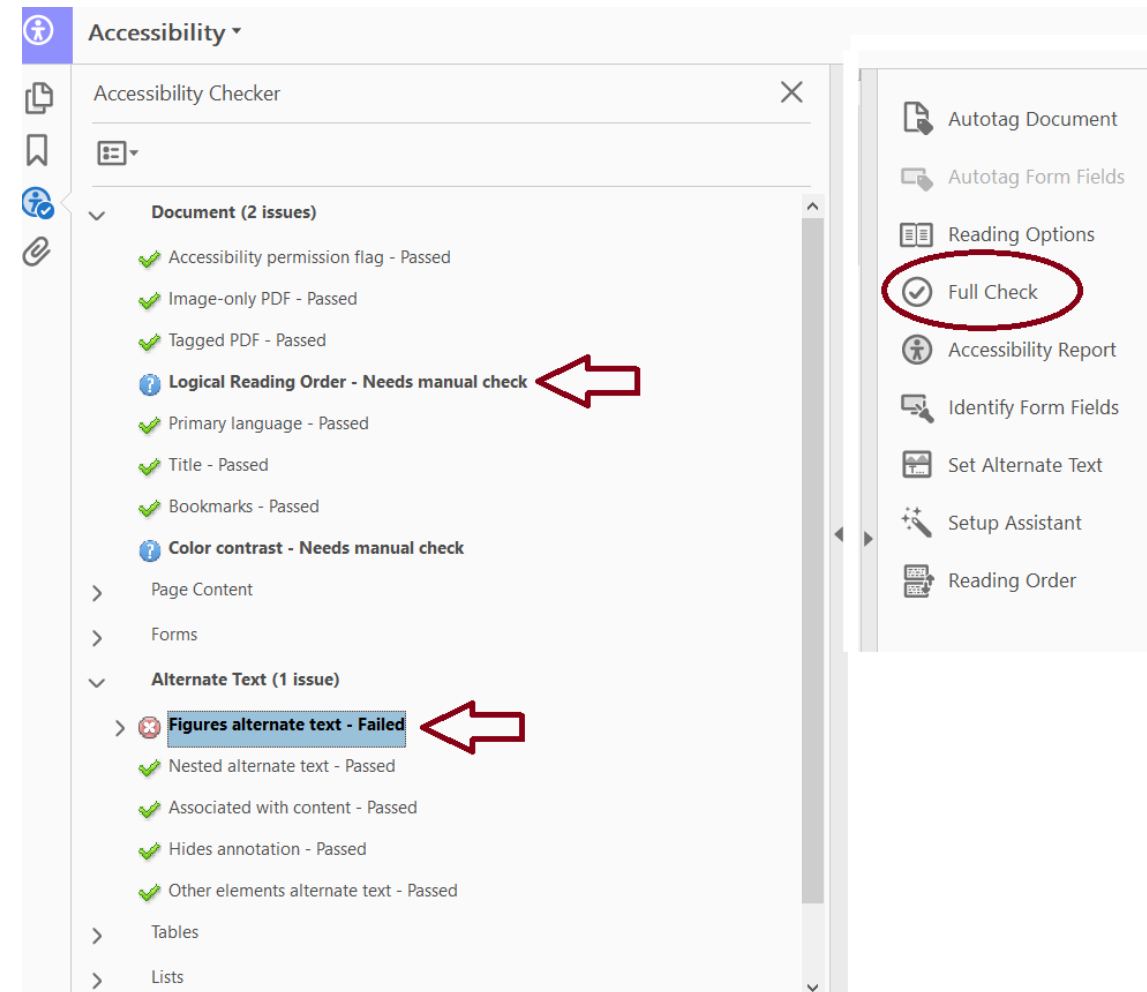
- ☐ African American or Black
- ☐ Asian
- ☐ Caucasian or White
- ☐ Middle Eastern or North African
- ☐ Native American or Native Alaskan
- ☐ Native Hawaiian or Pacific Islander
- ☐ Prefer not to respond
- ☐ Prefer to self-identify (click and type response)



What we've learned along the way...

Some standard practices

1. Collect what's necessary
2. Demographics at the end
3. Data Order
4. Use of "Other"
5. Ensure Accessibility





What we've learned along the way...

Some standard practices

CAST udlguidelines.cast.org

UDL GUIDELINES ENGAGEMENT ▶ REPRESENTATION ▶ ACTION & EXPRESSION ▶ MORE... ▶



Universal Design for Learning Guidelines

Provide multiple means of
Engagement ➔

Affective Networks
The "WHY" of learning



Provide multiple means of
Representation ➔

Recognition Networks
The "WHAT" of learning



Provide multiple means of
Action & Expression ➔

Strategic Networks
The "HOW" of learning



5. Ensure Accessibility



What we've learned along the way...

Thoughtful and Intentional Practices

Leverage different types of data

- Quantitative and Qualitative
- Make data interactive, where possible

“That day, in class,
my geo professor
said to me...”

Minimize Bias and Increase Transparency

- Consider how biases play a role in how you collect data and present information
- Increase transparency on how data are collected, methods and how they're being presented.



Mines Projects – Data Presentation



2021 ANNUAL REPORT

Diversity, Inclusion & Access

Mines Core Values

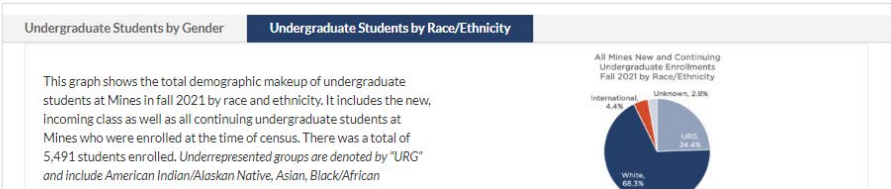
We, the Colorado School of Mines community, are united by our commitment to our timeless mission of educating and inspiring students from all backgrounds and advancing knowledge and innovations, with the aspiration that our graduates, ideas, actions and innovations will have a transformative impact on individuals and society, leading to shared prosperity and sustainable use of the Earth's resources.

2021 MINES DEMOGRAPHICS

This report has a plethora of data to show how Mines is progressing toward the Mines DI&A Strategic Plan goals. To provide context, the following data present the overall demographic breakdowns of Mines' community members: undergraduate and graduate degree-seeking students and employees – both academic faculty and staff. These data will set the stage for understanding trends at Mines over time, as found in subsequent sections of this report.

Please note: In the previous and current DI&A Annual Reports, Gender is defined as only either male or female due to limitations in data collection and reporting. Mines is currently working on developing new processes for collecting inclusive and accurate gender identity information. We acknowledge this definition of gender is limiting; work towards inclusive identity data collection is ongoing.

UNDERGRADUATE STUDENTS





Mines Projects – Data Presentation

Gender is defined as only either male or female due to limitations in data collection and reporting. Mines is currently working on developing new processes for collecting inclusive and accurate gender identity information. We acknowledge this definition of gender is limiting; work towards inclusive identity data collection is ongoing.

COMING SOON...



WORK THE NUMBERS

We will be making our data available via the Tableau platform and invite you to see what insights you can glean for yourself.

Contact and Citations



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- Census History: Counting Hispanics by D’Vera Cohn; Pew Research Center: <https://www.pewresearch.org/social-trends/2010/03/03/census-history-counting-hispanics-2/>
- Colorado School of Mines Annual 2021 Report on Diversity, Inclusion & Access: <https://www.mines.edu/diversity/annual-report-2021/>
- Defining First-Generation – Center for First-Generation Student Success: <https://firstgen.naspa.org/blog/defining-first-generation>
- Justice40 – a Whole-of-Government Initiative: <https://www.whitehouse.gov/environmentaljustice/justice40/>
- National Strategy on Gender Equity and Equality: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/22/fact-sheet-national-strategy-on-gender-equity-and-equality/>
- New York Times – Are you First Gen? Depends on Who’s Asking by Rochelle Sharpe: <https://www.nytimes.com/2017/11/03/education/edlife/first-generation-college-admissions.html>
- Urban Institute – Do No Harm Guide: Applying Equity Awareness in Data Visualization by Jonathan Schwabish and Alice Feng
- TRIO – Department of Education: Fast Facts Report for the Educational Opportunity Centers Program 2018-2019: <https://www2.ed.gov/programs/trioeoc/eoc-fastfacts2022.pdf>
- Making Hispanics: How Activists, Bureaucrats, and Media Constructed a New American. By G. Cristina Mora. Chicago: University of Chicago Press, 2014.
- Does Hispanic Heritage Month need a Rebrand? By Isabelia Herrera. The New York Times. September 14, 2019