



May 31, 2025

# Education Data Tools for Journalists

EWA National Seminar 2025 – St. Louis



# Questions come from many audiences about ed data.

- State legislator: How has the number of public schools offering prekindergarten programs changed over the last 10 years? How does my state compare with neighboring states?
- Equity advocate: How much state funding does my city's school district receive, how does it compare with surrounding districts, and how has that changed over the last five years?
- Parents: How have test scores changed at schools in my community since the Covid-19 pandemic?

AP

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EDUCATION

Trump restricts federal research funding, a lifeblood for colleges

1 of 2 | A New York City police officer keeps watch on the campus of Columbia University in New York, Monday, May 6, 2024. (AP Photo/Seth Wenig, File)

BY SHARON LURYE AND JOCELYN GECKER  
Updated 9:29 AM EDT, March 28, 2025

STL TODAY

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Feds' crackdown on Chinese student visas could hit WashU the hardest in Missouri

## CHALKBEAT TENNESSEE

COMMUNITIES JOBS BOARD

## At a grim time for math test scores, these districts buck the trend

By Steven Yoder, The Hechinger Report | April 28, 2025, 6:00am EDT

# Education data in the wild

- Data are generally at most two of:
  - (very) useful
  - (very) easy to get
  - (even the slightest bit) clean
- Federally collected (ED, Census, etc.) data are in the sweet spot
  - Pretty useful, pretty easy to get, and pretty clean
  - Can't do large scale longitudinal work
  - There are still LOTS of great research questions to ask from them
  - The only census-level data about (public) education in the US

The Feds collect A. LOT. OF. DATA

# But people have to work a bit to get the answers.

- Look for the data you need
  - Start with knowing what data even exist
- Find out you need four datasets from two websites formatted three different ways
- Combine data sets and make it harmonized across years

# Some data wrangling...

IES NCES

National Center for Education Statistics

MENU

Search

Go

## CCD Data Files

**Information on the Common Core of Data (CCD)**

The primary purpose of the CCD is to provide basic information on public elementary and secondary schools, local education agencies (LEAs), and state education agencies (SEAs) for each state, the District of Columbia, and the outlying territories with a U.S. relationship.

CCD is composed of two components: Nonfiscal CCD and Fiscal CCD. To see what years are available for each component, click here:

[Years Available](#)

Fiscal/Nonfiscal ⓘ

Level

School Year

Nonfiscal

School

2022 - 2023

Clear

2022 - 2023, School

Data File	Documentation	Program File
<b>DIRECTORY</b> Flat and SAS Files (12.0 MB)	<b>DIRECTORY</b> Companion File (54 KB)	<b>DIRECTORY</b> SPSS Read Program
<b>MEMBERSHIP</b> Flat and SAS Files (198 MB)	<b>MEMBERSHIP</b> Companion File (39 KB)	<b>MEMBERSHIP</b> SPSS Read Program
<b>STAFF</b> Flat and SAS Files (5.35 MB)	<b>STAFF</b> Companion File (35 KB)	<b>STAFF</b> SPSS Read Program
<b>SCHOOL CHARACTERISTICS</b> Flat and SAS Files (5.09 MB)	<b>SCHOOL CHARACTERISTICS</b> Companion File (35 KB)	<b>SCHOOL CHARACTERISTICS</b> SPSS Read Program
<b>LUNCH PROGRAM ELIGIBILITY</b> Flat and SAS Files (14.2 MB)	<b>LUNCH PROGRAM ELIGIBILITY</b> Companion File (40 KB)	<b>LUNCH PROGRAM ELIGIBILITY</b> SPSS Read Program
	<b>ONLINE DOCUMENTATION</b> Release Notes (78 KB) State Data Notes (158 KB)	




# OK maybe a LOT of data wrangling...

Civil Rights Data Collection  
Office for Civil Rights  
U.S. Department of Education

AboutExplore the DataPublications

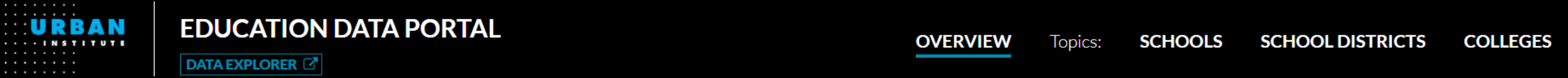
Search by school, district, or state



## Data File Downloads

Collected Year	State and National Data	Downloadable Data Files	CRDC School Survey Form	CRDC District Survey Form	Data File User's Manual	Data Notes	Data Definitions	Data Notes Appendix
2023-24			<a href="#">Download</a>	<a href="#">Download</a>				
2021-22			<a href="#">Download</a>	<a href="#">Download</a>			<a href="#">Download</a>	
2020-21		<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>		<a href="#">Download</a>	<a href="#">Download</a>
2017-18	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>
2015-16	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>	<a href="#">Download</a>

# The Education Data Portal solves those problems.



- One-stop-shop for all major national datasets on schools, districts, and colleges
- Contains everything the federal government knows about every school, district, and college
- Launched in 2018 and updated quarterly, now with 120+ datasets harmonized across sources and over time
- Remains available even when the federal government shuts down



# People use it a lot and it accommodates different audience needs.

- 2,000+ monthly users and 10,000+ monthly requests
- Finding out about our users
  - Researchers: Stata and R packages for more technical users (researchers)
  - Advocates, journalists, funders: Data Explorer for less technical users
- All powered by an Application Programming Interface (API)
  - We update one database and all tools update automatically
  - Empowers users to get just the data they need
  - Allows anyone to develop their own app or data tool using the Portal

# So what's it like to use the Education Data Portal?

- Types of questions to ask with the Portal
  - What are the demographics of public colleges in Washington?
  - How many Black college graduates in Maryland received degrees in education?
  - How many teachers are there in DC, Virginia, and Maryland public schools?
  - Where should I go to recruit underrepresented minority women in computer science?

# We can get quick answers using the Explorer Tool.



EDUCATION DATA EXPLORER

[Data Tool](#)

[Full API](#)

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[How To](#)

We want your [Feedback](#).

Education Level

READY TO GET STARTED?

Choose Education Level



K-12

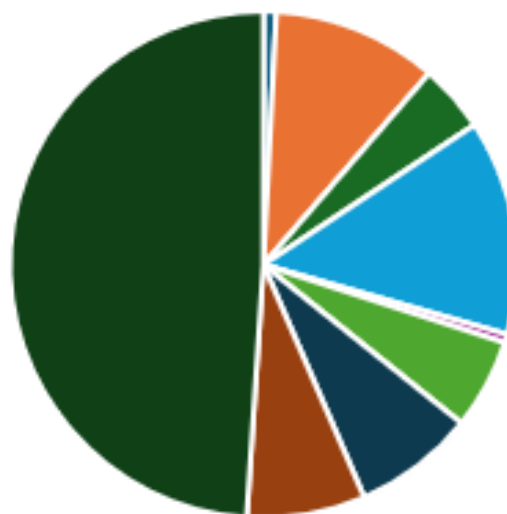


COLLEGE

What are the  
demographics of  
public colleges in  
Washington?

# What are the demographics of public colleges in Washington?

## College Demographics - Washington



- American Indian or Alaska Native
- Asian
- Black
- Hispanic
- Native Hawaiian or other Pacific Islander
- Nonresident alien
- Two or more races
- Unknown
- White

Source: Urban Institute Education Data Portal

URBAN INSTITUTE

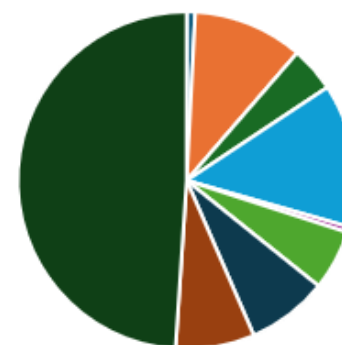
# Using data from the Portal and Excel took minutes rather than hours.

- Why

- One place to search
- Plain language category names
- Data cleaned and harmonized

What are the demographics of public colleges in Washington?

College Demographics - Washington



- American Indian or Alaska Native
- Asian
- Black
- Hispanic
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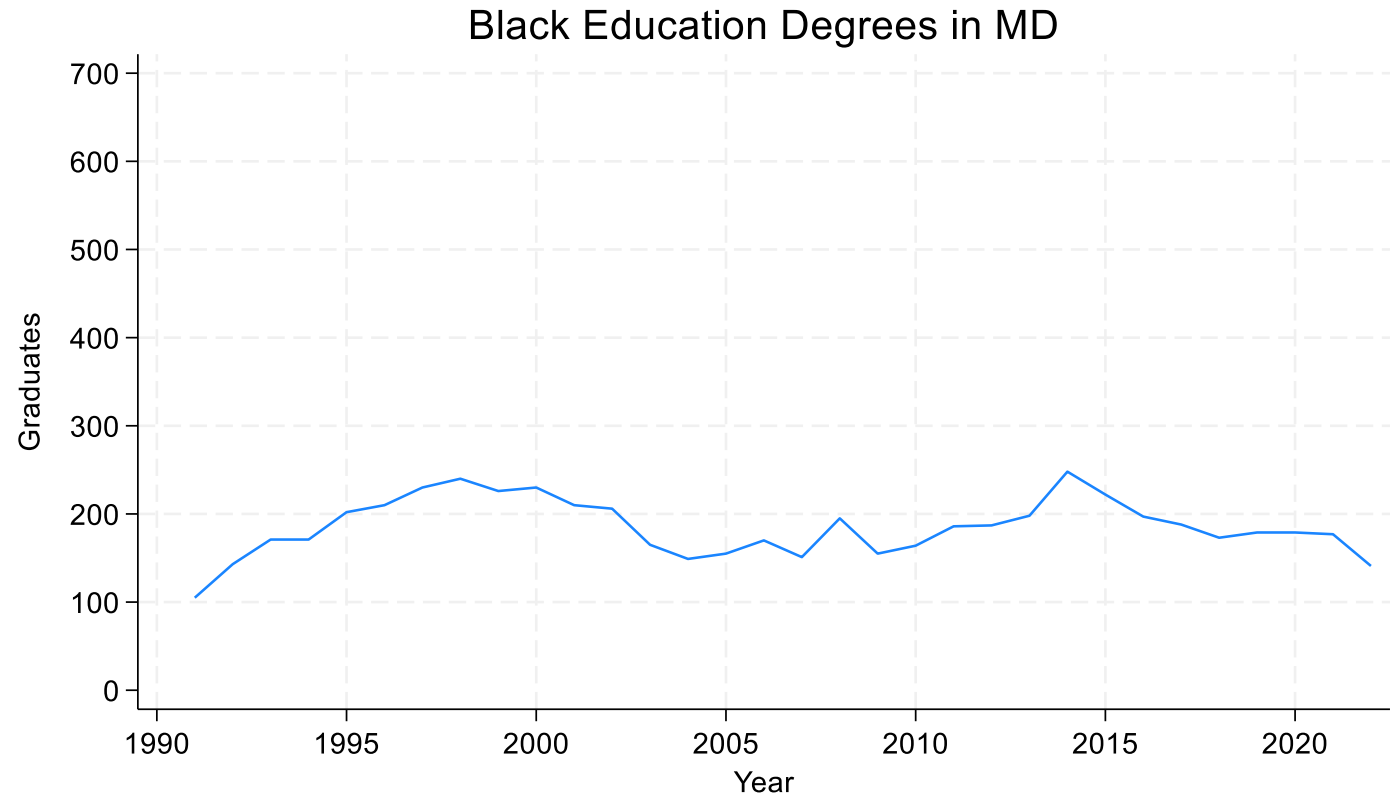
Source: Urban Institute Education Data Portal

URBAN INSTITUTE

# What if you love coding? You can write two lines of code and be done.

- How many Black college graduates in Maryland received degrees in education?

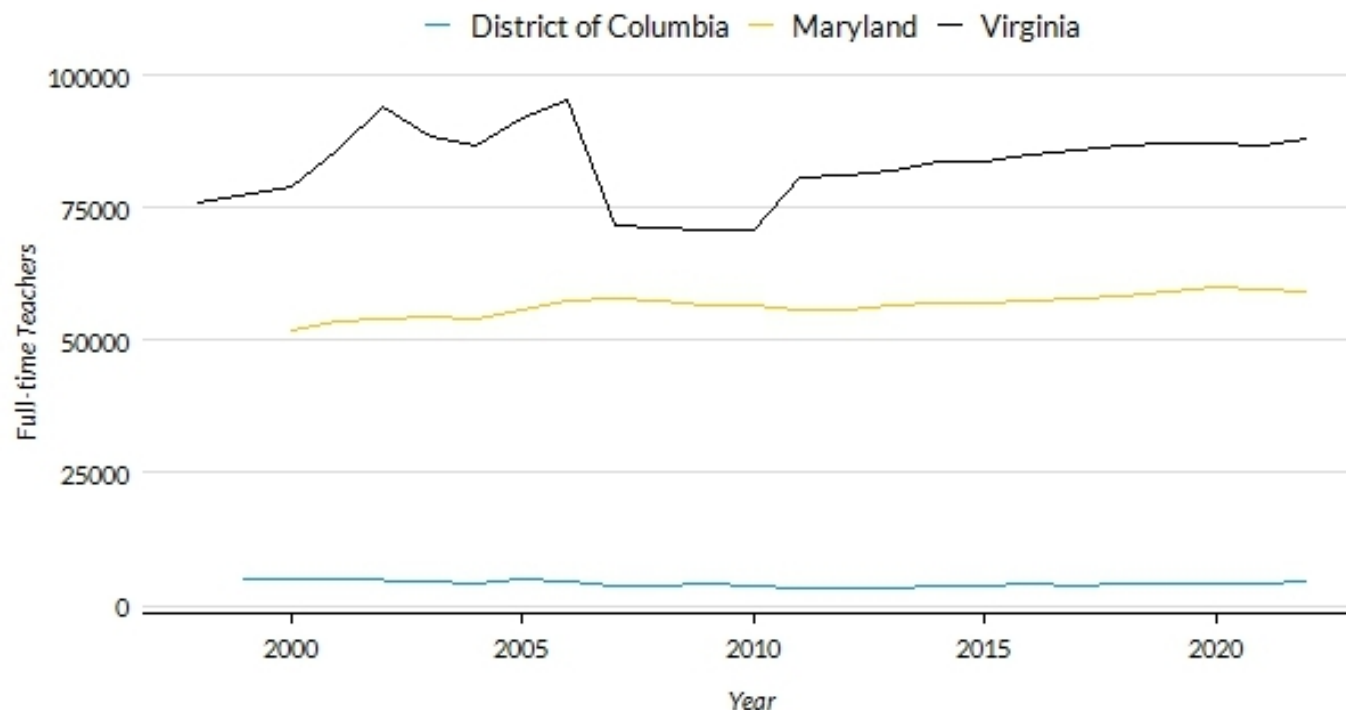
```
1 educationdata using "college ipeds completions-cip-2",  
2 summaries(sum awards by year) sub(cipcode=130000  
3 award_level=7 majornum=1 sex=99 race=2 fips=24) clear  
4  
5 twoway line awards year, title("Black Education Degrees  
6 in MD") xlabel(1990(5)2020) ylabel(0(100)700) ytitle(  
7 "Graduates") xtitle("Year")  
8
```



# What if you love coding? Maybe it's a few more than two in R...

- How many teachers are there in DC, Virginia, and Maryland public schools?

```
1 df <- get_education_data_summary(  
2   level = "schools",  
3   source = "ccd",  
4   topic = "directory",  
5   stat = "sum",  
6   var = "teachers_fte",  
7   by = "fips",  
8   filters = list(  
9     charter = 0,  
10    fips = c(11, 24, 51)  
11 )  
12 )  
13  
14 # Plot  
15 p <- ggplot(df, aes(x=year, y=teachers_fte, col = fips))  
16   geom_line()  
17 p  
18 p1 <- p + labs(x="Year", y = "Full-time Teachers")  
19 p1
```





FEATURE

# Explore Your School's Changing Demographics

Matthew Chingos, Christina Baird, Alice Feng, David Hinson, Emily Peiffer

January 29, 2020

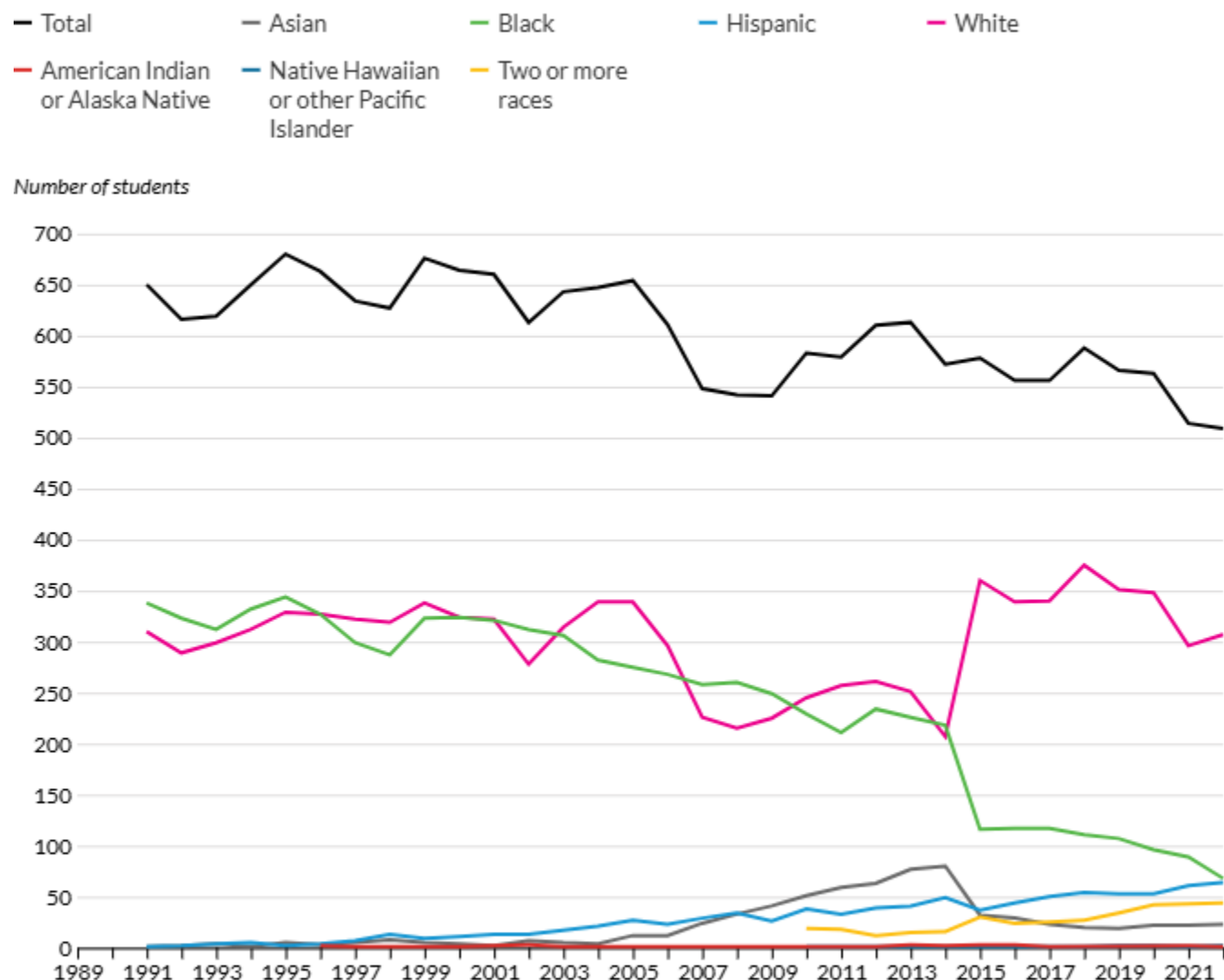
US schools have become more racially and ethnically diverse over the past few decades, but these changes have played out differently across the country. Understanding a school's demographics can inform conversations around school segregation, redistricting, funding, and equity.

Search for your PK–12 school (prekindergarten through 12th grade) to see how student enrollment by race or ethnicity has changed.

North Carolina ▼

Grover C Fields Middle, New Bern, NC

## Enrollment in Grover C Fields Middle



URBAN INSTITUTE

Source: Education Data Portal (Version 0.6.0), Urban Institute, Center on Education Data and Policy, <https://educationdata.urban.org/documentation/>, US Department of Education Common Core of Data.

Notes: This tool includes all PK-12 public schools that were open in the 2016-17 school year. Before 2008, the "Native Hawaiian or other Pacific Islander" category was included in the Asian grouping. Not all US schools were required to report these seven racial or ethnic categories until the 2010-11 school year, so the year when certain demographic groups first appear varies.

# Even with the Portal, there are still some barriers for users, especially non-research users

- You still must
  - Make meaning out of Excel data to understand trends or comparisons
  - Visualize the data yourself if numbers don't immediately communicate what you need
  - Put in some work to pair educational and economic opportunity data with the system conditions that contribute to these outcomes

# The E-W Framework Data Tool solves THOSE problems.

- Based on Gates/Mathematica [Education to Workforce Indicator Framework](#)
- An accessible, easily digestible resource to see data on these metrics, all using available federal data
- Allows users to explore data on both outcomes and system conditions at the state county and census tract level, offering a more complete picture of the conditions that help or hinder students' success in their journeys from early education through the workforce in their specific communities.
- Provides users and stakeholders with deidentified data that is shareable, enabling collaboration between community-based organizations and the communities they serve.



Education-to-Workforce  
INDICATOR FRAMEWORK

# The Education-to-Workforce Framework Data Tool

[Download Data](#)

The pathway through school and into the workforce requires people to navigate a complex network of opportunities and environments. Students moving through this process need to hit key milestones and have access to resources and experiences that enable them to be successful.

The Education-to-Workforce Indicator Framework makes it easy to track the outcomes and conditions most critical to students' success. Through its 99 indicators, the framework

## 1. Select a community

Choose data level



 Search

## 2. Select a topic to explore available data

[Read more about these topics areas](#)

Applying to college

Career pathways

College enrollment

College on track

College preparation

Early grade on track

Early-grade reading and math

Economic mobility and security

Exclusionary discipline

Financial aid

Full-day kindergarten

## GEOGRAPHY

## ESSENTIAL QUESTION

## TIME FRAME



Select a comparison  
geography

## Are students in St. Louis County, Missouri meeting reading and math benchmarks in grades 3 and 8?

As of 2022, St. Louis County, Missouri had Population: 999,703 Median income: \$78k Total households: 257,856 College educated: 46%

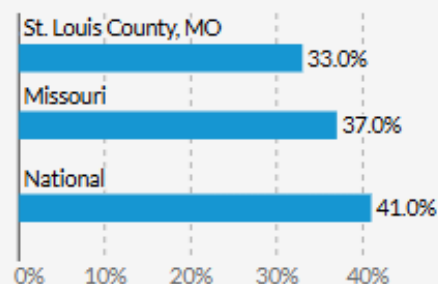
[Show demographic breakdowns](#)

### 12 metrics across 3 indicators of success have available data

[Download all chart images](#)

#### MATH AND READING PROFICIENCY IN GRADE 3

Share of students in grade 3 who meet grade-level standards in math 2020



Source

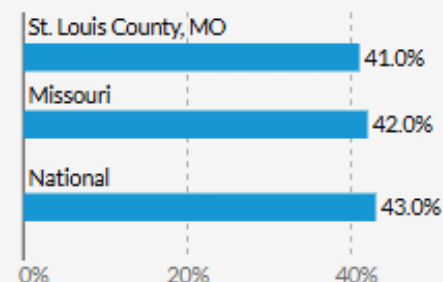
[Download chart image](#)

[View data breakdowns](#)



#### MATH AND READING PROFICIENCY IN GRADE 3

Share of students in grade 3 who meet grade-level standards in language arts 2020



Source

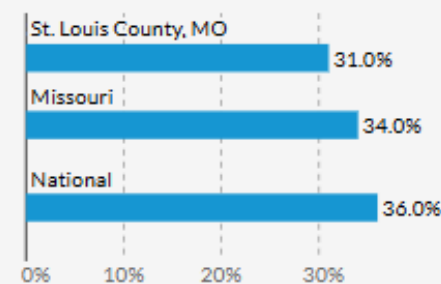
[Download chart image](#)

[View data breakdowns](#)



#### MATH AND READING PROFICIENCY IN GRADE 8

Share of students in grade 8 who meet grade-level standards in math 2020



Source

[Download chart image](#)

[View data breakdowns](#)



#### GEOGRAPHY

St. Louis County, Missouri

#### ESSENTIAL QUESTION

Early-grade reading a...

#### TIME FRAME

Most recent year only

#### COMPARISON GEOGRAPHY

Clark County, Nevada

[Clear selection](#)

## Are students in St. Louis County, Missouri and Clark County, Nevada meeting reading and math benchmarks in grades 3 and 8?

As of 2022, St. Louis County, Missouri had Population: 999,703 Median income: \$78k Total households: 257,856 College educated: 46%

[Show demographic breakdowns](#)

As of 2022, Clark County, Nevada had Population: 2,265,926 Median income: \$70k Total households: 532,434 College educated: 26%

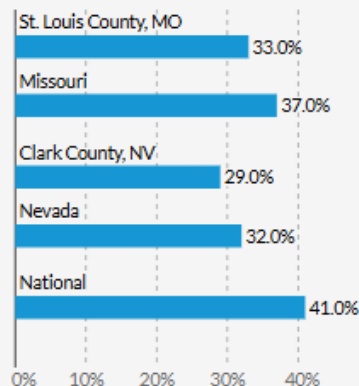
[Show demographic breakdowns](#)

### 12 metrics across 3 indicators of success have available data

[Download all chart images](#)

#### MATH AND READING PROFICIENCY IN GRADE 3

Share of students in grade 3 who meet grade-level standards in math 2020



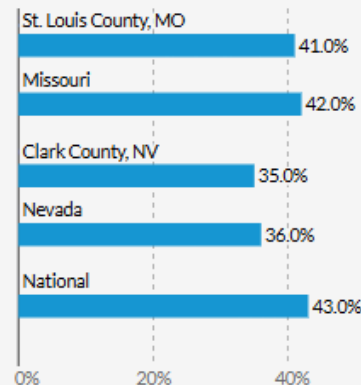
Source [i](#)

[Download chart image](#)

[View data breakdowns](#)

#### MATH AND READING PROFICIENCY IN GRADE 3

Share of students in grade 3 who meet grade-level standards in language arts 2020



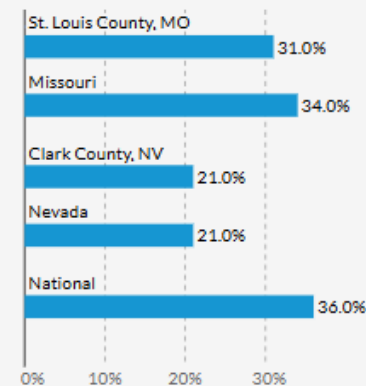
Source [i](#)

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#### MATH AND READING PROFICIENCY IN GRADE 8

Share of students in grade 8 who meet grade-level standards in math 2020



Source [i](#)

[Download chart image](#)

[View data breakdowns](#)





← Return to previous selections

## Explore All Education-to-Workforce Indicators

26 metrics of success have available data

GEOGRAPHY

COMPARISON GEOGRAPHY

Q St. Louis County, Missouri

Q Clark County, Nevada

Clear selection

TIMEFRAME

Most recent year only

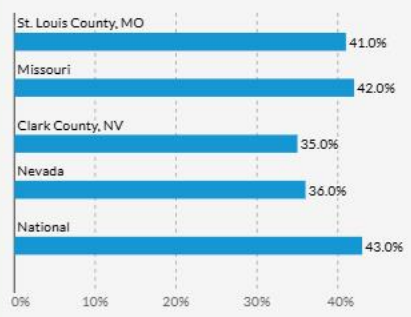
FILTER BY

Domain

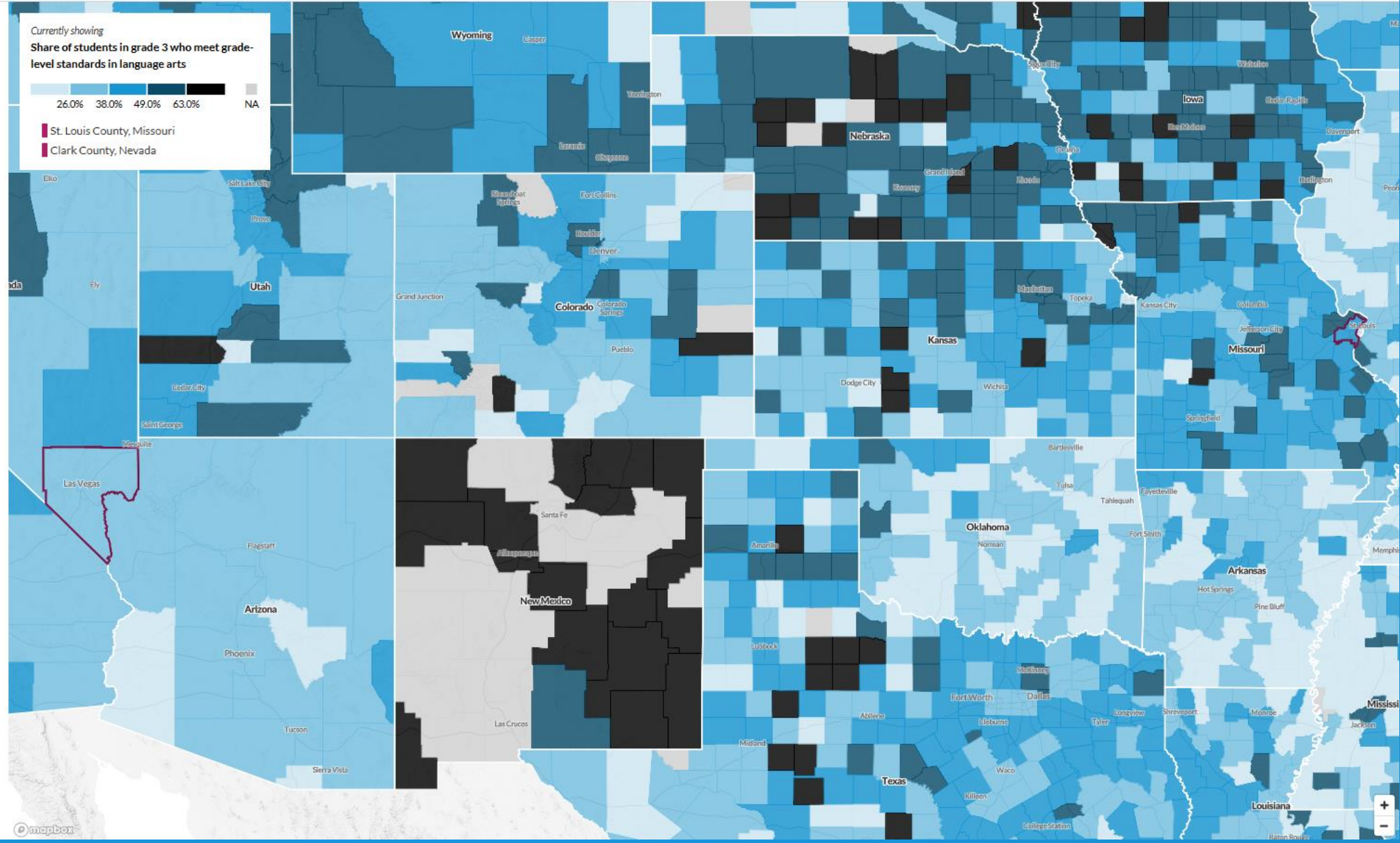
- Academic Progress and Completion x
- Career Readiness and Economic Success
- Social, Emotional, and Physical Well-being

Hide controls

Share of students in grade 3 who meet grade-level standards in language arts  
2020



Source ⓘ  
Download chart image ↓





# The Education-to-Workforce Framework Data Tool

Download Data

The pathway through school and into the workforce requires people to navigate a complex network of opportunities and environments. Students moving through this process need to hit key milestones and have access to resources and experiences that enable them to be successful.

The Education-to-Workforce Indicator Framework makes it easy to track the outcomes and conditions most critical to students' success. Through its 99 indicators, the framework

Urban Data Catalog

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View Revisions

## Education to Workforce Framework Tool Data

Adolescents and Youth Children Economic Growth and Productivity Job Market and Labor Force Education and Training Neighborhoods, Cities, and Metros

f x in ✉

### DATA AND RESOURCES BLOCK

zip	US Education to Workforce Metrics 2013 - 2022 ( May 12, 2025 )	↓
zip	State Education to Workforce Metrics 2013 - 2022 ( May 12, 2025 )	↓

educationdata.urban.org

<https://apps.urban.org/features/education-workforce-framework-data/>

<https://www.urban.org/data-tools/explore-your-schools-changing-demographics>

educationdata@urban.org

Thanks!