FEDERAL RESERVE BANK of ST. LOUIS

FRED® : Active Learning with Economic Data

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Presenter

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This information is my opinion and does not represent the official views of the Federal Open Market Committee, the Federal Reserve System or the Federal Reserve Bank of St. Louis.

What is FRED?

FRED®

ECONOMIC DATA | ST. LOUIS FED

"I should be glad to hear from anyone who thinks that such time series may have value ... ."

This 1961 memo from Homer Jones, the St. Louis Fed's director of research from 1958 to 1971, is the first known data distribution from the Bank.

Enclosed are copies of three tables as follows:

(1) Annual Rates of Change in Money Supply - Semi-monthly Averages of Daily Figures, 1950-1961

(2) Annual Rates of Change in Money Supply Plus Time Deposits - Semi-monthly, 1951-1961

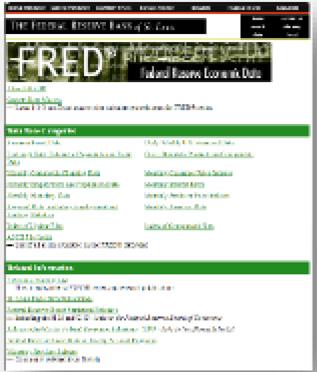
(3) Annual Rates of Change in Money Supply, Time Deposits, and Short-term Governments - Monthly, 1951-1961

Enclosed also is a three-panel chart of the moving average column of these tables.

Annual Rates of Change in Money Supply[1/]
Semi-Monthly Averages of Daily Figures

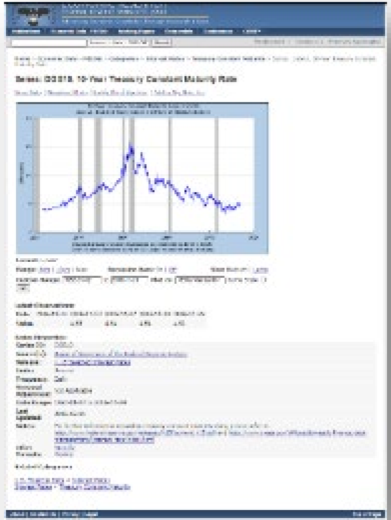
			Change from Previous Period	Three Period Moving Average[2/]
1950	January	1	+ 2.2 %	+ 2.2 %
		2	+ 4.3	+ 3.8
	February	1	+ 4.3	+ 5.9
		2	+ 10.8	+ 6.5
	March	1	-0-	+ 5.4
		2	+ 10.8	+ 7.6
	April	1	+ 8.6	+ 8.1
		2	+ 4.3	+ 5.4
	May	1	+ 4.3	+ 4.3
		2	+ 4.3	+ 3.8
	June	1	+ 2.1	+ 3.7
		2	+ 6.4	+ 5.9

Screen capture of FRED portal in 1996
Source: https://www.stlouisfed.org/annual-report/2013/fred-history



Screen capture of FRED portal in 1999
http://web.archive.org/web/19991010065410/
http://www.stls.frb.org/fred/

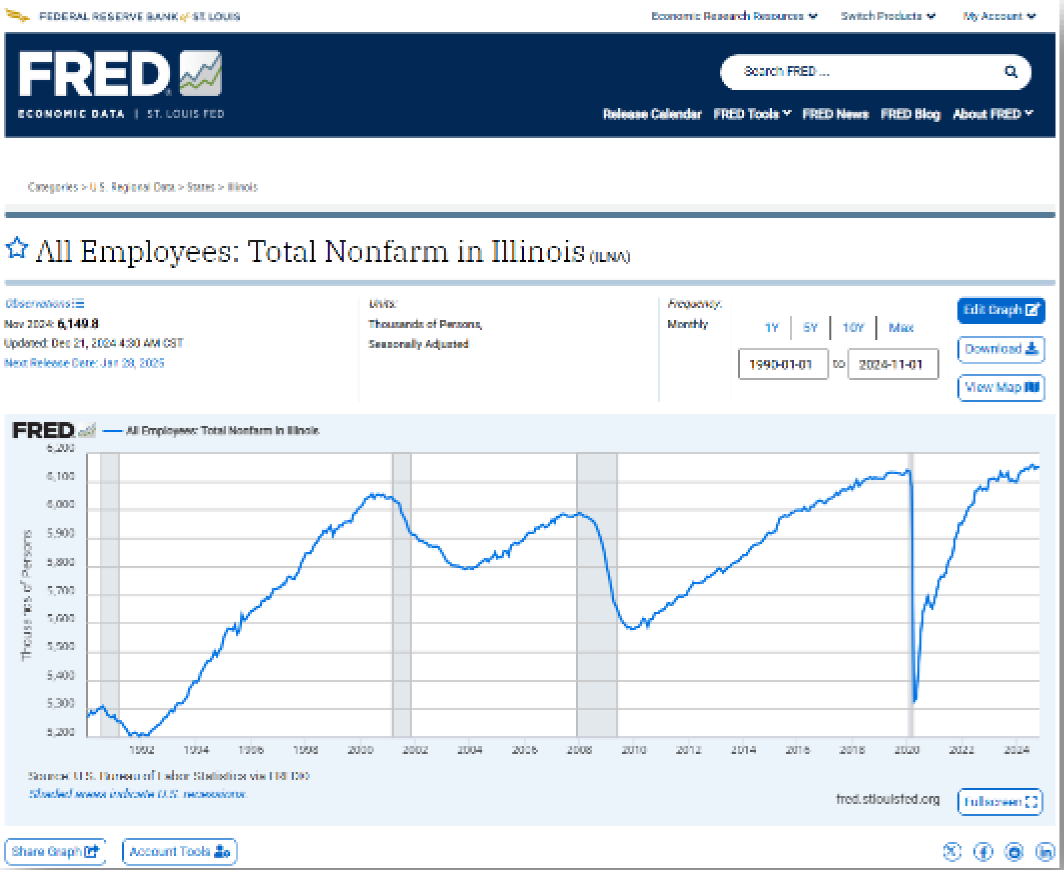
Screen capture of FRED series in 2002
http://web.archive.org/web/20020830083701/
http://research.stlouisfed.org/fred2/series
/CLF16OV/10



Screen capture of FRED series in 2006
http://web.archive.org/web/20061203031437/http://research.stlouisfed.org/fred2/series/DGS10/

Screen capture of FRED series in 2015
http://web.archive.org/web/20150214072659
http://research.stlouisfed.org/fred2/series/UNRATE/

Screen capture of FRED series in 2024
https://fred.stlouisfed.org/series/CAUR

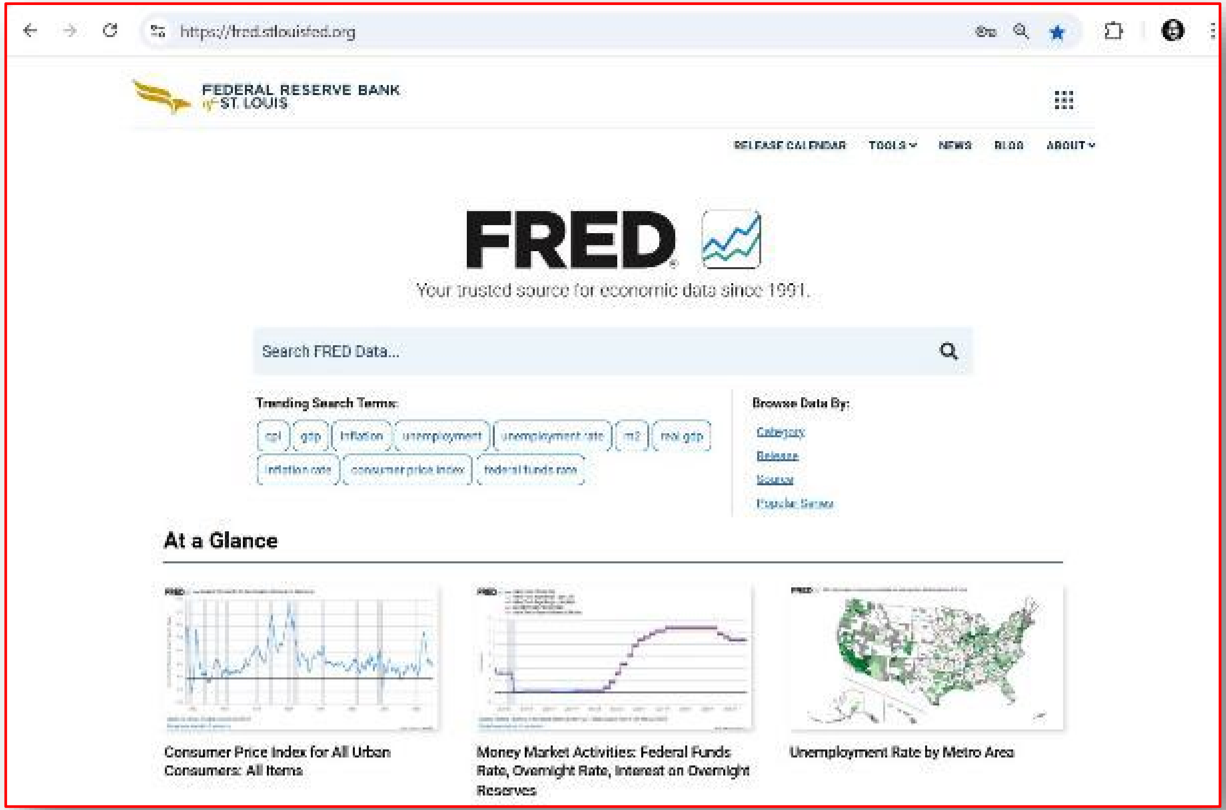


Screen capture of FRED series in 2025

https://fred.stlouisfed.org/series/ILNA

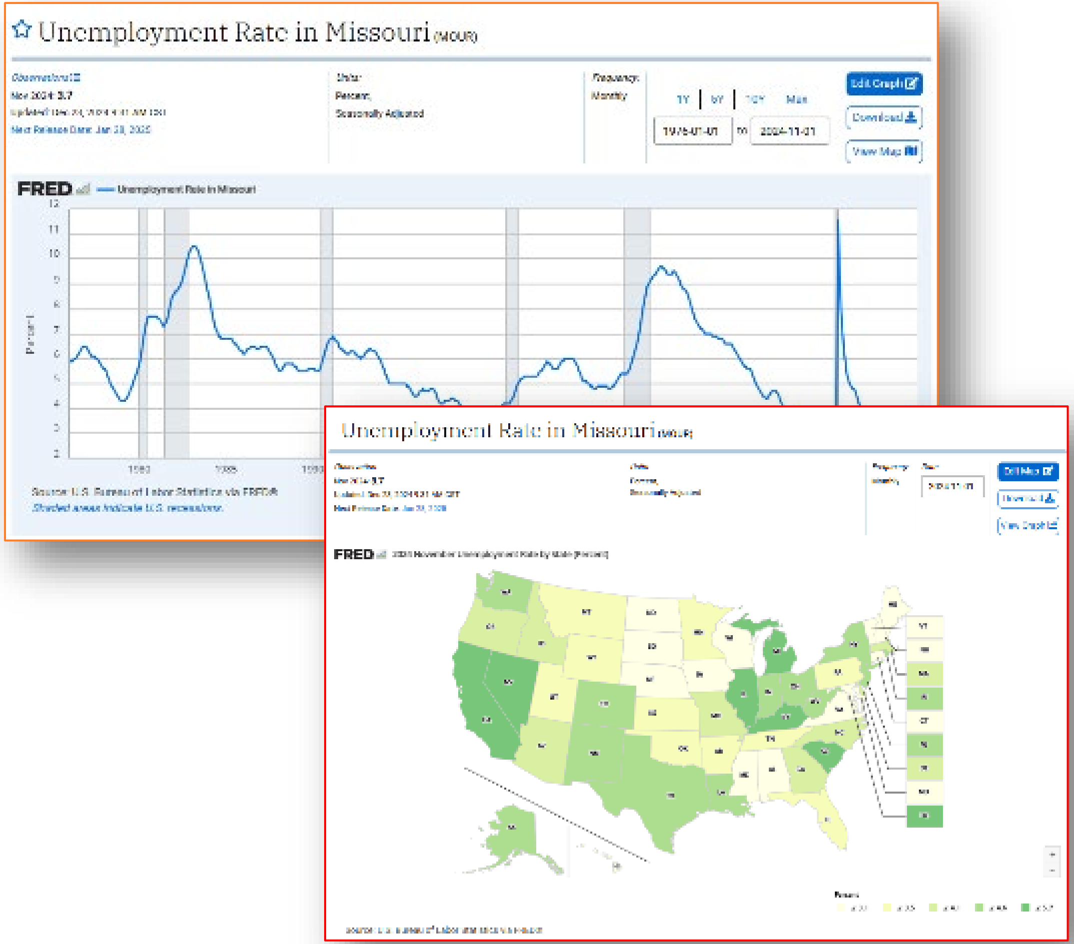
What Is FRED?

FRED is a data aggregator, with over 845,000 time series from over 120 sources: governments, treaty organizations, and private organizations.



What Is FRED?

FRED enables users to find, download, graph, map, and understand economic and financial data.



How does Research Information Services evaluate the success of initiatives and build products that scale?

We use the tools of economic analysis to improve economic education.

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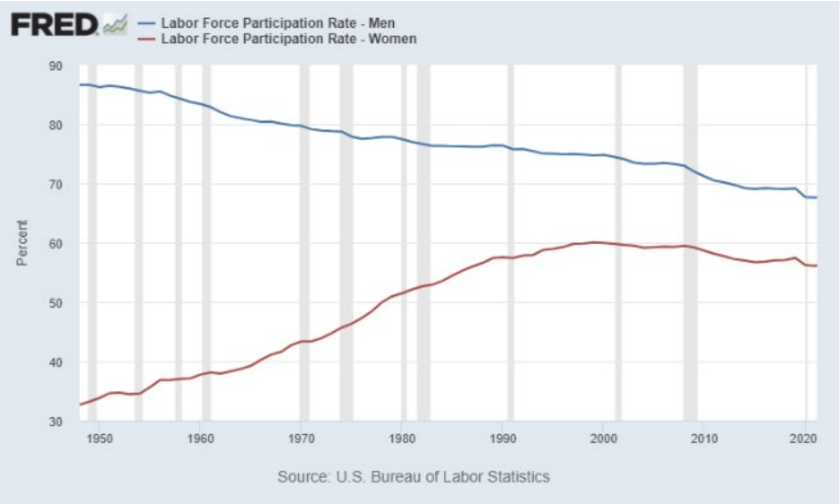
Choice of data visualization tool: FRED or spreadsheets?

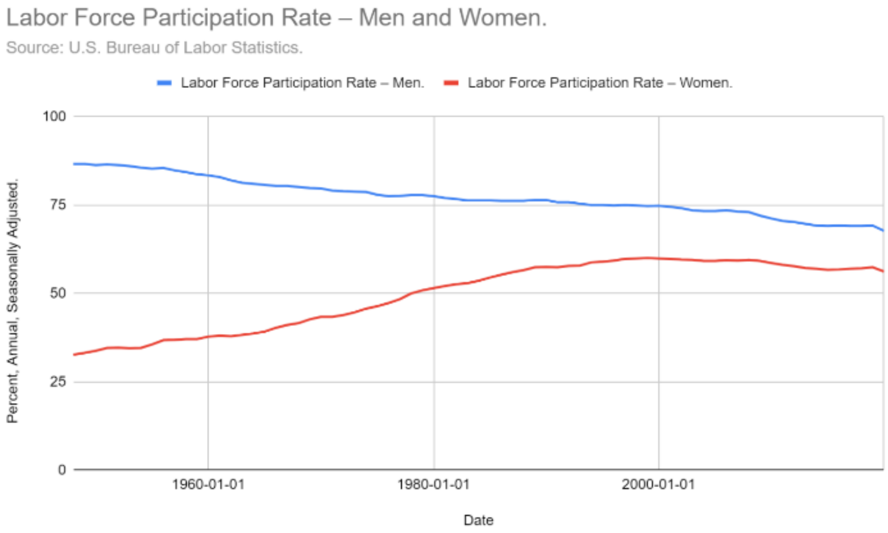
Diego Mendez-Carbajo [a,*], Alejandro Dellachiesa [b]

https://doi.org/10.1016/j.iree.2023.100275

FRED Group



Google Sheets Group



- Online graph-building, graph reading, and evaluation.
- *N* = 471 (students from a large public university).
- A/B experimental design; Demographic controls.

Findings:

- Students assigned to create a data graph using Google Sheets abandoned the task more frequently than students assigned to use FRED.

Actions:

- Use FRED assignments to boost task completion and learning economics.

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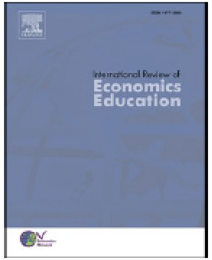
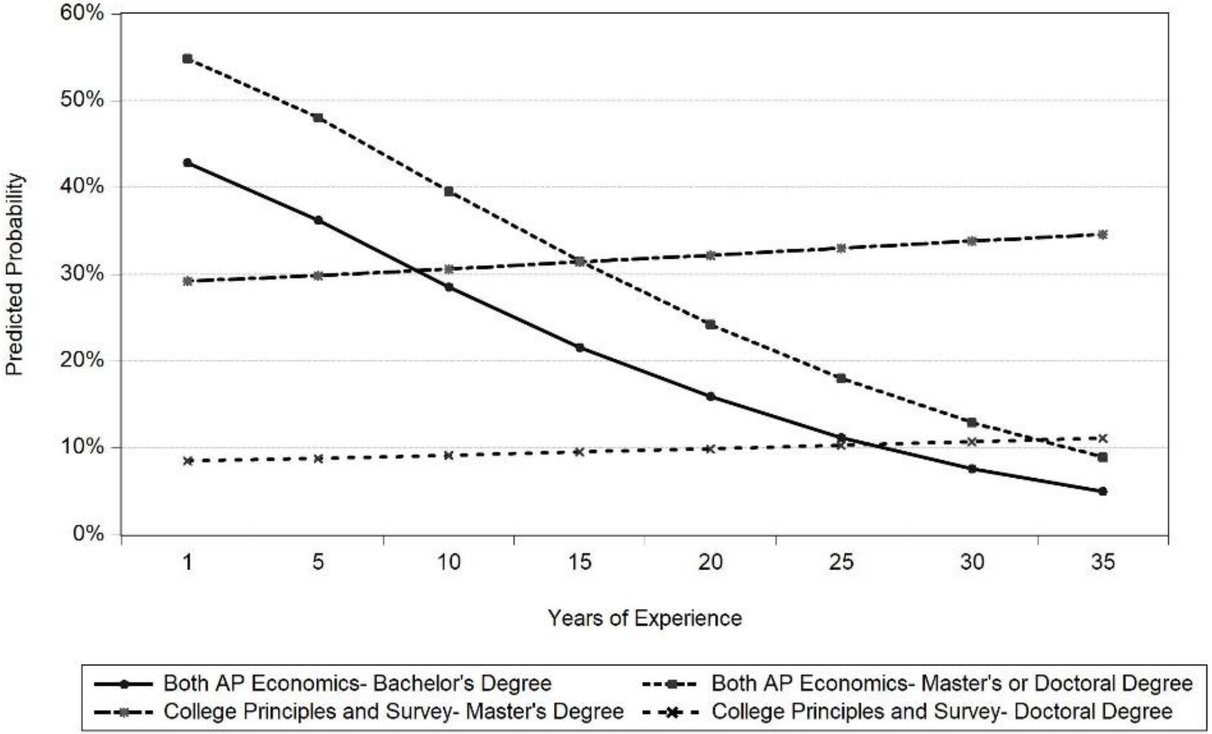


Teaching with FRED and active-learning methods in introductory economics courses

Laura J. Ahlstrom [a,*], Diego Mendez-Carbajo [b]

https://doi.org/10.1016/j.iree.2025.100314

Figure 2. Predicted Probabilities for FRED Used Often
in AP Economics and College Principles and Survey Courses by Degree Type and Years of Experience



Findings:

- The educational use of FRED is not exclusively in the hands of more experienced instructors and those who are economics subject matter experts.

Actions:

- Keep FRED® and Carry On!

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"Chalk and Talk" 30 Years Later: Insights From a Seventh National Survey on Teaching Undergraduate Introductory Economics

Carlos J. Asarta[1], Laura J. Ahlstrom[2], and Cynthia L. Harter[3]

https://doi.org/10.1177/05694345251413579

Table 3. Survey Results on Teaching Methods, Median (and Mean) Responses in Percentages—Introductory Courses

Variable	2020 (0–6 scale)	2025 (0–6 scale)
Classroom presentations		
Traditional lectures	76 (68)	93 (73)
Chalkboard or whiteboard text/graphs	76 (60)	76 (60)
PowerPoint/computer-generated displays	58 (53)	76 (62)
Media (e.g., social media/music/movie/internet clips/podcasts)[a]	6 (19)	22 (28)
Database		
Federal Reserve Economic Data (FRED)	6 (26)	22 (29)
Other government databases	6 (22)	6 (19)
Other	0 (3)	0 (7)

Findings:

- Over the last five years, the median classroom use FRED data has increased and now amounts to 22 percent of class time.

Actions:

- Keep up with FRED®!

Tools for Teaching with FRED

FRED micro-credentials

- Modular skills.
- Asynchronous delivery.
- Scalable outreach.

Three separate programs have issued 30,000 badges since 2022.

FRE | FEDERAL RESERVE EDUCATION

https://www.federalreserveeducation.org/teaching-resources/economics/series/intro-to-fred

- Lesson Plans and Activities for Teaching with FRED.
- Lesson Plans and Activities for Teaching with FRED Maps.

FRED ECONOMIC DATA | ST. LOUIS FED | Classroom

https://news.research.stlouisfed.org/category/fred-classroom-newsletter/

- Graph-building assignments.
- Assignment-ready prompts.
- Related FRED Blog posts.
- Public FRED dashboards with graph-reading prompts.

Bring FRED® into the Classroom

https://confirmsubscription.com/h/t/8A72332D6ECB859F

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