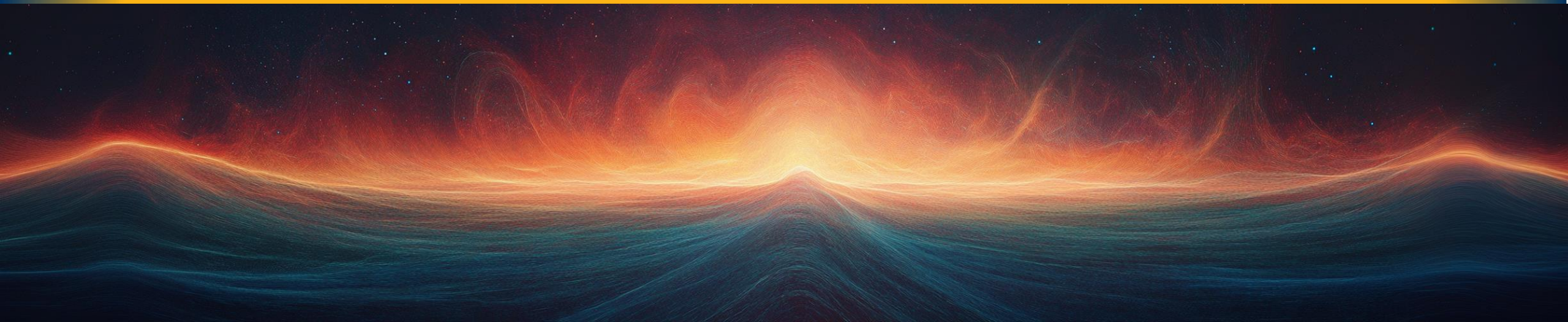
ECON 002:
Principles of Macroeconomics

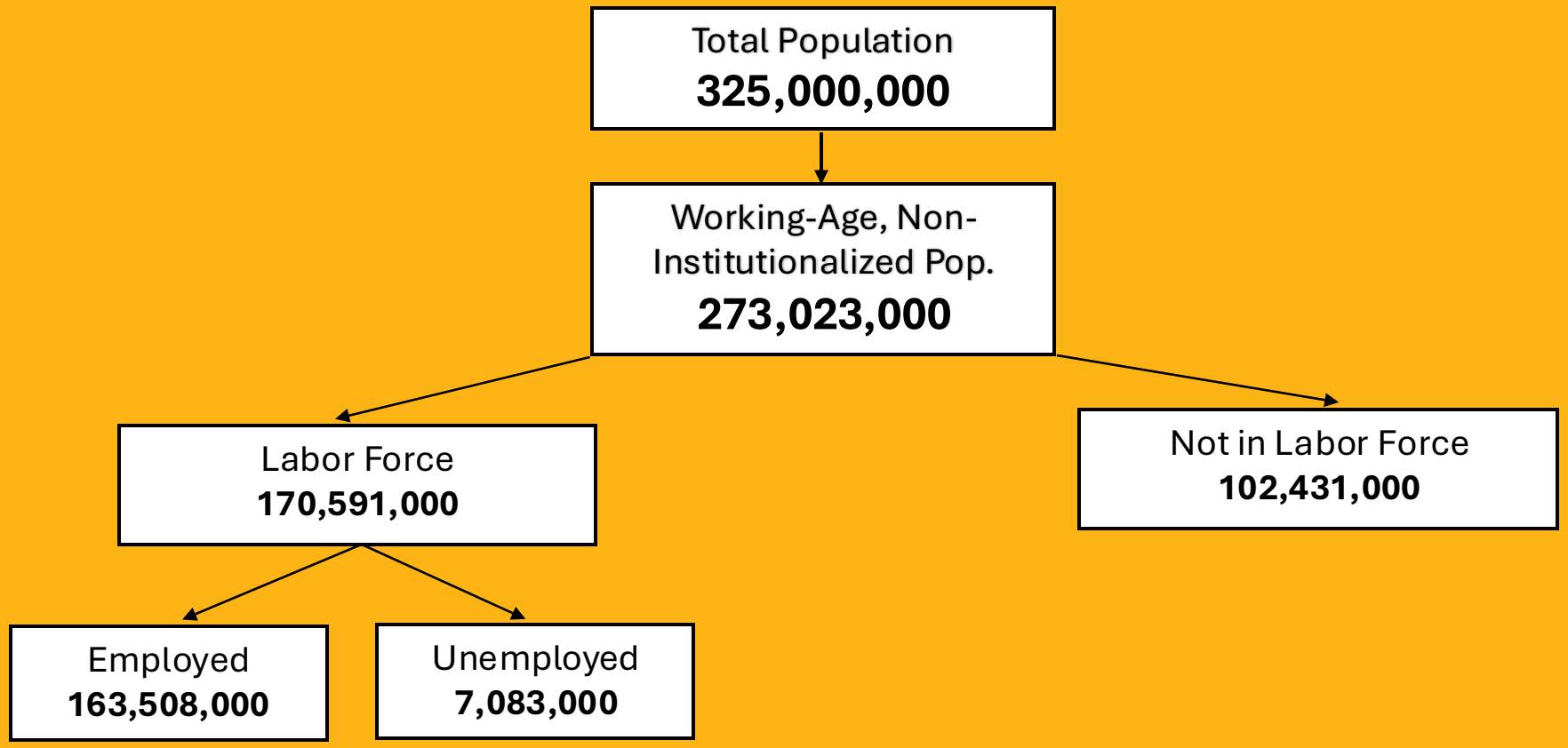
Lecture 7: Full Employment, Midterm Review

Calculating the Unemployment Rate

- Bureau of Labor Statistics (BLS)
- Today there are ~325 million people in the US, 7.35 billion in the world! Do not expect all of them to be employed.
- BLS calls 60,000 households in the 2nd week of the month → households chosen so they represent the population
- In March, 2025:
- Civilian, Working-Age, Non-institutionalize Population = 273,023,000
  - Age and Institutionalization Restrictions
  - Other Restrictions?



A Picture of Employment



Calculating the Unemployment Rate

- Civilian, Working-Age, Non-institutional Population = **273,023,000**

Employed Workers: any work done for pay in the past week
-part-time work
-temporary work
-didn't work last week because of vacation, illness, family, weather, labor dispute
-unpaid family work

- **163,508,000** employed workers in March, 2025

Unemployed Workers:

1. Did not work for at least one hour in the past week for pay.
2. Actively searched for work in the last 4 weeks.
   -contacting employer, employment agency, submitted resumes, answering job ad
   -does not include passively looking for jobs online

- **7,083,000** unemployed workers in March, 2025

Calculating the Unemployment Rate

- Unemployment Rate: the fraction of workers in the labor force who are unemployed
- UE Rate = $\frac{\text{Number of unemployed}}{\text{Labor Force}} \times 100$
- In March 2025, UE Rate = $\frac{7{,}083{,}000}{170{,}591{,}000} \times 100 = 4.16\ \%$

- Civilian Labor Force: Individuals who are employed or actively searching for work.
- LF = Employed + Unemployed = **163,508,000** + **7,083,000** = **170,591,000**

- Labor Force Participation Rate = fraction of Working-Age, Non-institutional Population in the labor force.
- Labor Force Participation = $\frac{\text{Number in LF}}{\text{Working–Age Pop.}} \times 100 = \frac{\mathbf{170{,}591{,}000}}{\mathbf{273{,}023{,}000}} \times 100 = 62.5\%$

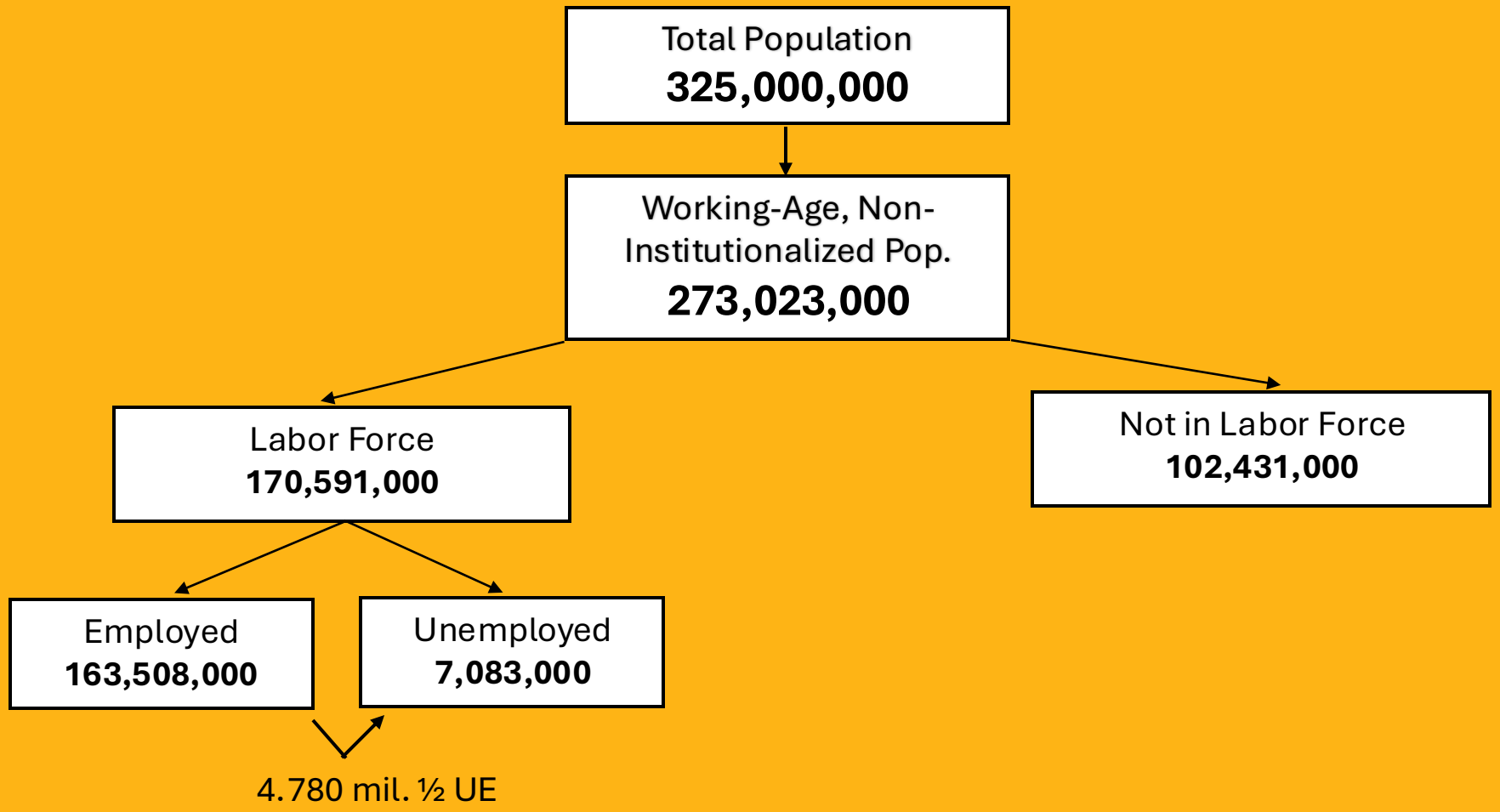
Shortcomings of the UE Rate Calculation

- Two big problems
- 1.
- 2.
- Can we account for these shortcomings?

Involuntary Part-Time Workers

- Many workers want a full-time job, but only have a part-time job.
- Example: Individual wants to work 40 hours a week, but can only find 20 hours of work.
  - This individual is ½ unemployed.
- Involuntary Part-Time Worker:
- Unemployment Rate with IPT Workers=

A Picture of Employment

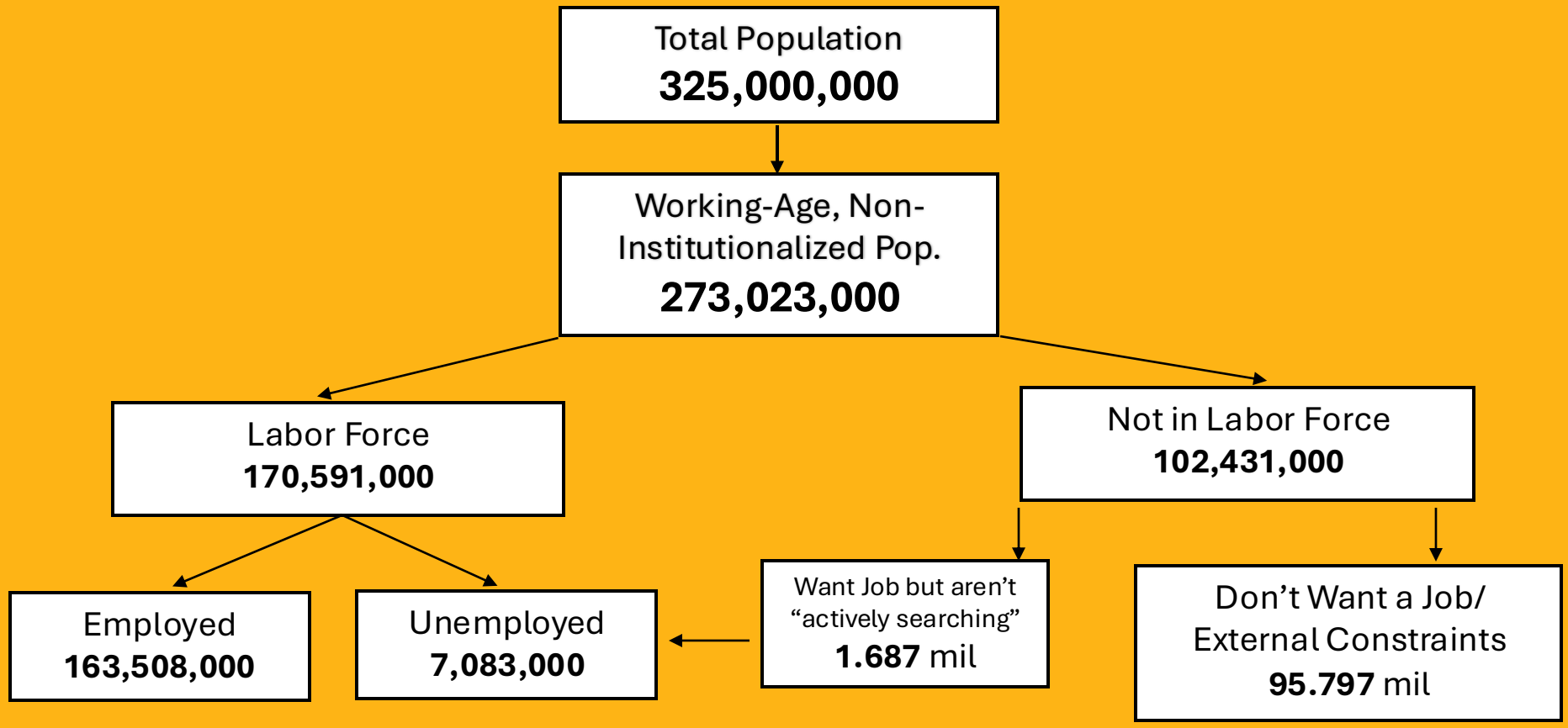


A Picture of “Not in the Labor Force”

- Which workers would take a job if offered one?

- Discouraged Unemployment Rate =

A Picture of Employment



Unemployment Reporting

- **Notes:**

U-1: Long-term unemployment (15 weeks or longer)
U-2: Job losers and persons who completed temporary jobs.
U-3: Official unemployment rate.
U-4: U-3 + discouraged workers.
U-5: U-4 + marginally attached workers.
U-6: U-5 + part-time workers for economic reasons.

U1-U6 Unemployment Rates (Mar 2024 - Mar 2025)

	Mar-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Average
U-1: Unemployed 15+ weeks	1.3%	1.7%	1.6%	1.5%	1.5%	1.5%	1.5%
U-2: Job losers	1.8%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%
U-3: Total unemployed (official)	3.9%	4.2%	4.1%	4.0%	4.1%	4.2%	4.1%
U-4: Total + discouraged	4.1%	4.5%	4.4%	4.3%	4.4%	4.4%	4.4%
U-5: Total + marginally attached	4.8%	5.1%	5.0%	4.9%	5.1%	5.1%	5.0%
U-6: Total + part-time for economic reasons	7.3%	7.7%	7.5%	7.5%	8.0%	7.9%	7.6%

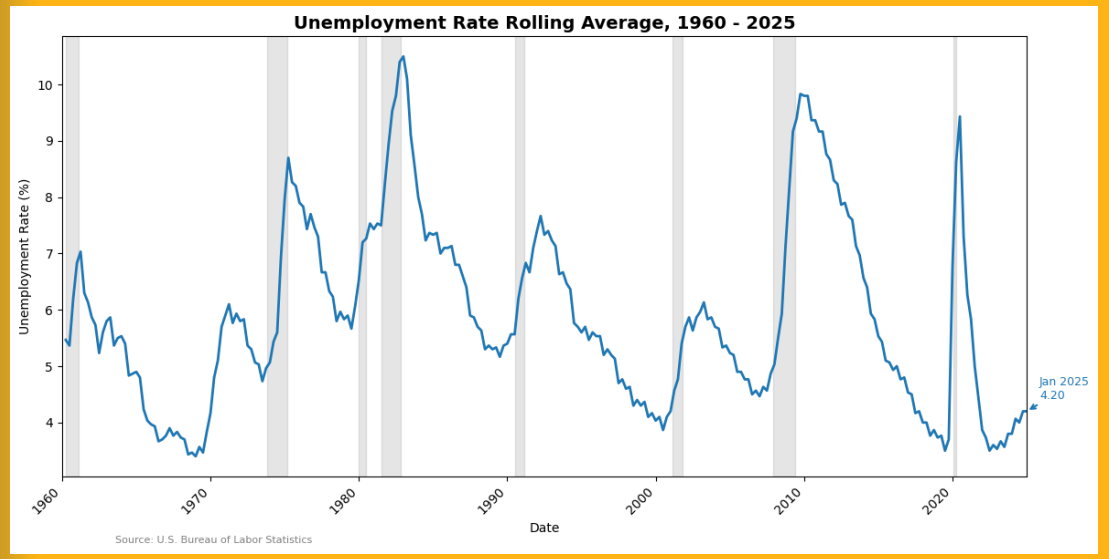
Color Scale (% of Labor Force)

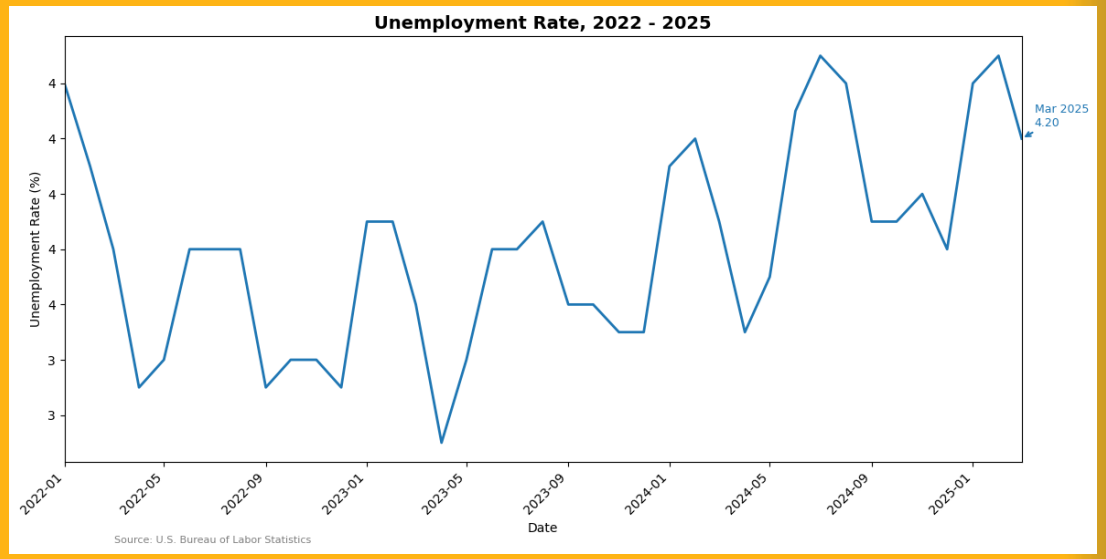
1-2% | 2-3% | 3-4% | 4-5% | 5-6% | 6-7% | 7-8% | 8%+

Hover over cells to highlight specific data points.

The U1-U6 rates represent increasingly broader definitions of unemployment, with U3 being the official unemployment rate and U6 being the broadest measure including discouraged and part-time workers.

Unemployment Today





Midterm 1 Notes

- Monday, April 28th: ~12:30 – 1:45pm
  - Assigned Seats released on Canvas
  - Left-Handed writers, reach out to the Head TA Today!
- 30 Multiple Choice Questions: ~2.5 minutes/question
- Evenly distributed among topics of
  - Supply/Demand (Chapter 2)
  - GDP (Chapter 3.1)
  - CPI (Chapter 3.2)
  - Unemployment (Chapter 3.3)
- Also due on Monday, April 28th at 9:30am
  - Lecture Quiz 4

Equations

$$Growth\ Rate_{Yr A, Yr B} = \frac{Value_{Yr B} - Value_{Yr A}}{Value_{Yr A}} \times 100$$

$$CPI_{Current\ Year} = \frac{Basket\ Cost\ in\ Current\ Year}{Basket\ Cost\ in\ Base\ Year} \times 100$$

$$Weighted\ Basket\ Cost_{Current\ Year} = P^{Goods}_{Current\ Year} \times Q^{Goods}_{Base\ Year}$$

$$GDP\ Deflator_{Current\ Year} = \frac{Nominal\ GDP\ in\ Current\ Year}{Real\ GDP\ in\ Current\ Year} \times 100$$

Unemployment Rate = # Unemployed/# in Labor Force x 100