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# Concepts in Real Life: Presentation 2

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# Measures of Employment Gains

- Nonfarm Payroll Employment (Net Change)
  - Net increase in the # of employees added to nonfarm payrolls.
- Gross Job Gains
  - Sum of all jobs at new openings or existing businesses that are expanding.
- Net Employment Change
  - Difference between gross job gains and gross job losses (from closing or businesses getting smaller).
- Employment Population Ratio
  - Measures the share of the working-age population with a job.
- Employment Growth Rate
  - Measures how much a company or industry's headcount has increased over a specific time period.

# Calculations of Employment Gains

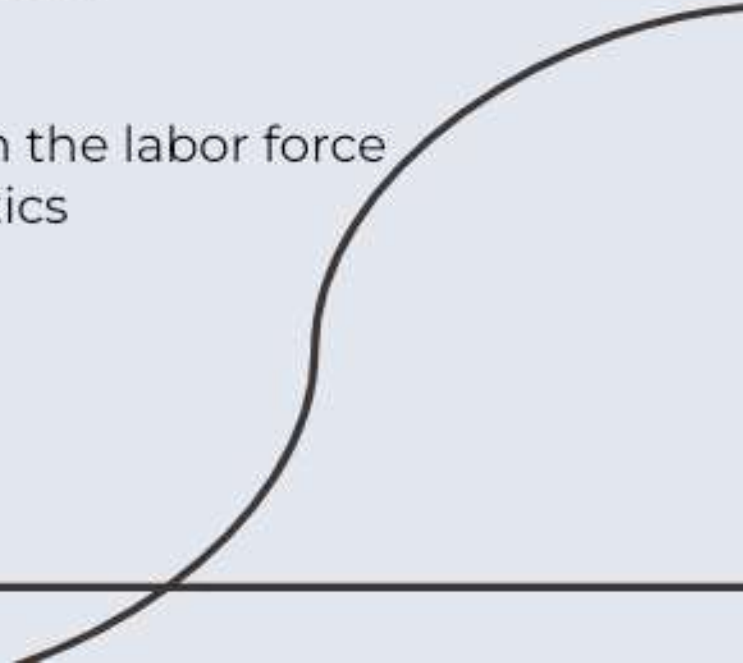
- Nonfarm Payroll Employment
  - Current Month Payroll - Previous Month Payroll
- Gross Job Gains Rate
  - # of Gross Jobs / Avg of Total Private Employment in Previous Quarter.
- Net Employment Change
  - Gross Job Gains - Gross Job Losses
- Employment Population Ratio
  - (Civilian employment / Civilian Non-Institutional Pop)
- Employment Growth Rate
  - $((\text{Current Employment} - \text{Prev Employment}) / \text{Prev Employment}) * 100\%$

# Measures of Employment Rates and Calculations

- U-1 - Percentage of the labor force unemployed for 15 weeks or longer
- U-2 - Percentage of the labor force who lost jobs or completed temporary work
- U-3 - (OFFICIAL RATE) - Total unemployed individuals as a percentage of the civilian labor force
  - $(\text{Unemployed} / \text{Labor Force}) * 100$
- U-4 - U-3 plus “discouraged workers” (people who stopped looking for jobs)
- U-5 - U-4 plus people who can't work or haven't searched recently
- U-6 - (Broadest) - U-5 plus people employed part-time for economic reasons

# Employment Gains and Unemployment Rates

## Responsibilities

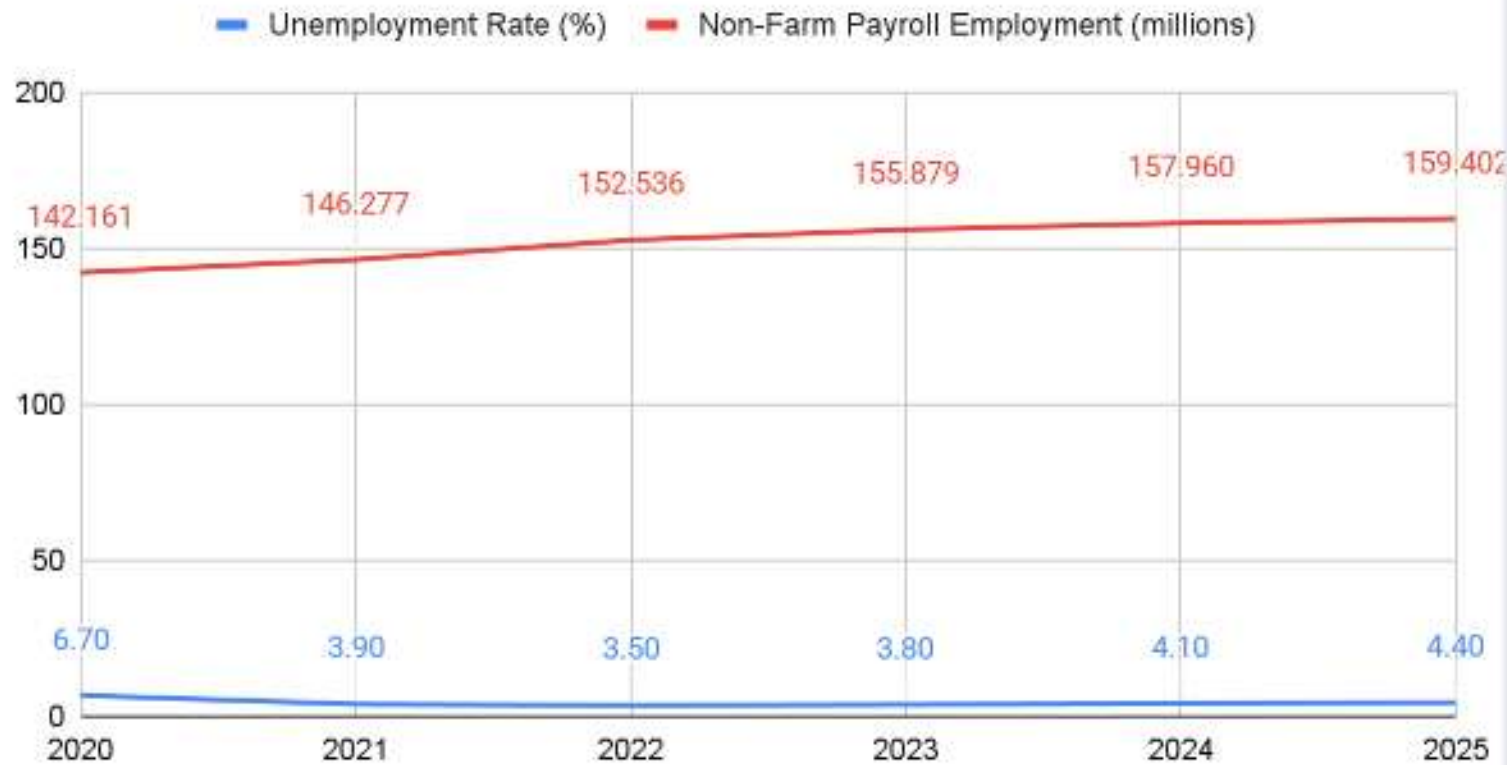
- The U.S Bureau of Labor Statistics (BLS) computes and releases data on employment gains and unemployment rates
  - Data covers national, state, and local employment, unemployment, and labor force statistics
  - Only considers people who:
    1. Either have a job or people who are jobless
    2. Looking for a job
    3. People who are available for work
    4. Everyone else is not considered to be in the labor force and not considered within these statistics
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# Frequency on Calculations and Releases

- The BLS releases data on the first Friday of each month, at 8:00 A.M. EST.
- The data is based on two surveys:
  - The Household Survey (current population survey) - collects data from a sample of residences about the people and conditions about them
  - The Establishment Survey (payroll data) - gathers data on employment, hours, and earnings from ~121,000 businesses and government agencies representing ~631,000 worksites.
  - It provides crucial data on nonfarm payroll jobs to assess economic health

# Change in Unemployment Rate and Non-Farm Payroll Employment Over 5 Years

Unemployment Rate and Non-Farm Payroll Employment



1.

COVID-19  
pandemic from  
2020-2022

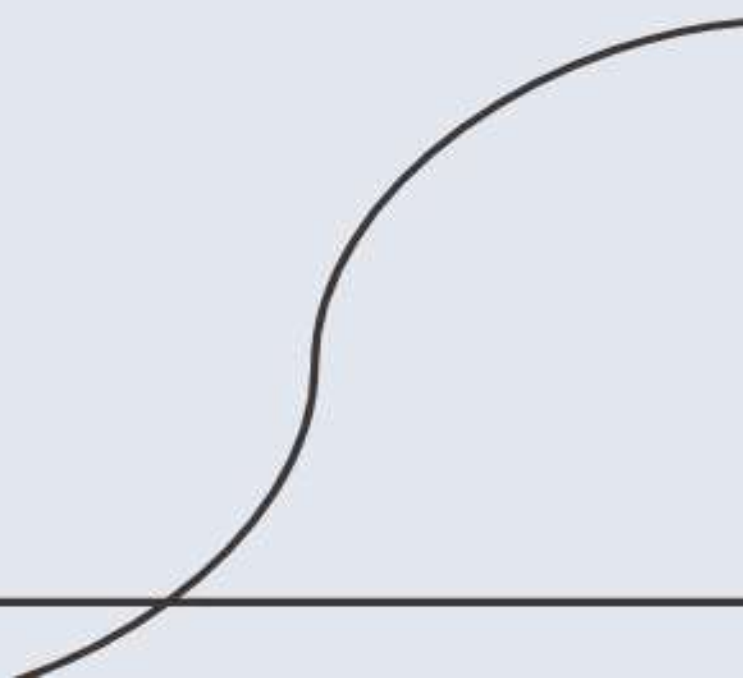
2.

The non-farm  
payroll  
employment is s  
teadily increasing

# Measures of Inflation

- Consumer Price Index (CPI)
  - Tracks prices of goods the average consumer buys
  - $\text{CPI} = (\text{Basket Cost Current Year}) / (\text{Basket Cost Base Year}) * 100$
  - Inflation Rate:  $(\text{CPI Year 2} - \text{CPI Year 1}) / \text{CPI Year 1} * 100$
- Personal Consumption Expenditures (PCE) price index
  - Changes in prices of goods and services
  - Calculated by total, inflation-adjusted, market-value spending on goods and services by households and nonprofit institutions
- Producer Price Index (PPI)
  - Changes in the selling prices received by domestic producers for their output
  - Similar to CPI, but from the perspective of the producer
- Gross Domestic Product (GDP) Deflator
  - Price changes of goods/services produced in a certain country
  - $\text{GDP Deflator} = (\text{Nominal GDP} / \text{Real GDP}) * 100$

## Release of Inflation Related Data

- CPI: Consumer Price Index
    - U.S. Bureau of Labor Statistics (BLS)
  - PPI: Personal Price Index
    - U.S. Bureau of Labor Statistics (BLS)
  - PCE: Personal Consumption Expenditures
    - U.S. Bureau of Economic Analysis (BEA)
  - GDP Deflator: Gross Domestic Product
    - U.S. Bureau of Economic Analysis (BEA)
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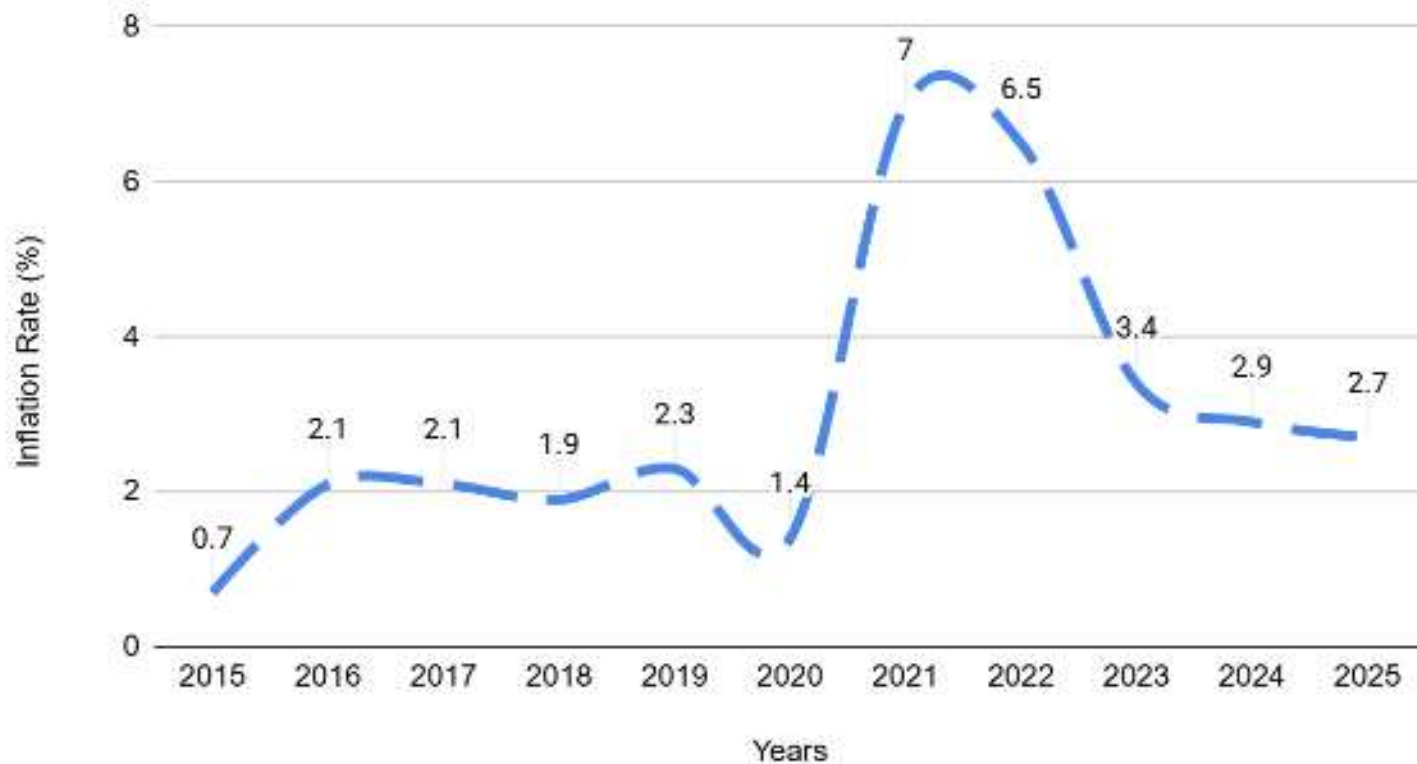
# Frequency of Inflation Related Data

- Consumer Price Index (CPI)
  - Monthly
  - Around mid-month, covering the previous month
  - BLS releases an annual release schedule in advance
- Personal Consumption Expenditures (PCE)
  - Monthly
  - Middle-Late in the month
  - BEA releases a fixed annual schedule for PCE release
- Personal Price Index (PPI)
  - Monthly
  - Usually a few days before CPI release
  - Included in the BLS annual release schedule
- Gross Domestic Product Deflator (GDP Deflator)
  - Quarterly
  - Released with GDP reports

|                                    |   |                                                                                         |
|------------------------------------|---|-----------------------------------------------------------------------------------------|
| New Date<br>February 5<br>9:30 AM  | N | Gross Domestic Product by County and Personal Income by County, 2024                    |
| New Date<br>February 19<br>9:30 AM | N | U.S. International Trade in Goods and Services, December and Annual 2025                |
| New Date<br>February 19<br>9:30 AM | N | Real Personal Consumption Expenditures by State and Real Personal Income by State, 2024 |
| New Date<br>February 20<br>9:30 AM | N | GDP (Advance Estimate), 4th Quarter and Year 2025                                       |
| New Date<br>February 20<br>9:30 AM | N | Personal Income and Outlays, December 2025                                              |
| March 5<br>9:30 AM                 | N | U.S. International Trade in Goods and Services, January 2026                            |
| March 5<br>10:00 AM                | N | Outdoor Recreation Satellite Account, U.S. and States, 2024                             |
| New Date<br>March 13<br>15:30 AM   | N | GDP (Second Estimate), 4th Quarter and Year 2025                                        |

## Most Commonly Used Inflation Rate in Last 10 Years

United States Annual Inflation Rates (2015 to 2025)



1.

Inflation rates during COVID-19 raised significantly

2.

Inflation rate is stabilizing post COVID-19 towards the ideal 2%

**Thank You!**

**Any Questions?**

# Sources

"Charts Related to the Latest 'The Employment Situation' News Release | More Chart Packages." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, [www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm](https://www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm). Accessed 29 Jan. 2026.

"Current U.S. Inflation Rates: 2000-2026." *US Inflation Calculator | Easily Calculate How the Buying Power of the U.S. Dollar Has Changed from 1913 to 2026. Get Inflation Rates and U.S. Inflation News.*, 13 Jan. 2026, [www.usinflationcalculator.com/inflation/current-inflation-rates/](https://www.usinflationcalculator.com/inflation/current-inflation-rates/). Accessed 29 Jan. 2026

"How the Government Measures Unemployment." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, [www.bls.gov/cps/cps.htm.htm](https://www.bls.gov/cps/cps.htm.htm). Accessed 29 Jan. 2026.

"Overview of BLS Statistics on Inflation and Prices." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, 15 Sept. 2025, [www.bls.gov/bls/inflation.htm](https://www.bls.gov/bls/inflation.htm). Accessed 29 Jan. 2026

"Personal Consumption Expenditures." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, [www.bls.gov/cex/cecomparison/pce\\_profile.htm](https://www.bls.gov/cex/cecomparison/pce_profile.htm). Accessed 29 Jan. 2026.

"Table A-15. Alternative Measures of Labor Underutilization - 2025 M13 Results." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, 9 Jan. 2026, [www.bls.gov/news.release/empsit.t15.htm](https://www.bls.gov/news.release/empsit.t15.htm). Accessed 29 Jan. 2026

"What Is Inflation, and How Does the Federal Reserve Evaluate Changes in the Rate of Inflation?" *Board of Governors of the Federal Reserve System*, [www.federalreserve.gov/faqs/economy\\_14419.htm](https://www.federalreserve.gov/faqs/economy_14419.htm). Accessed 29 Jan. 2026.