Principles of Economics
Discussion Session 11: (Un)employment
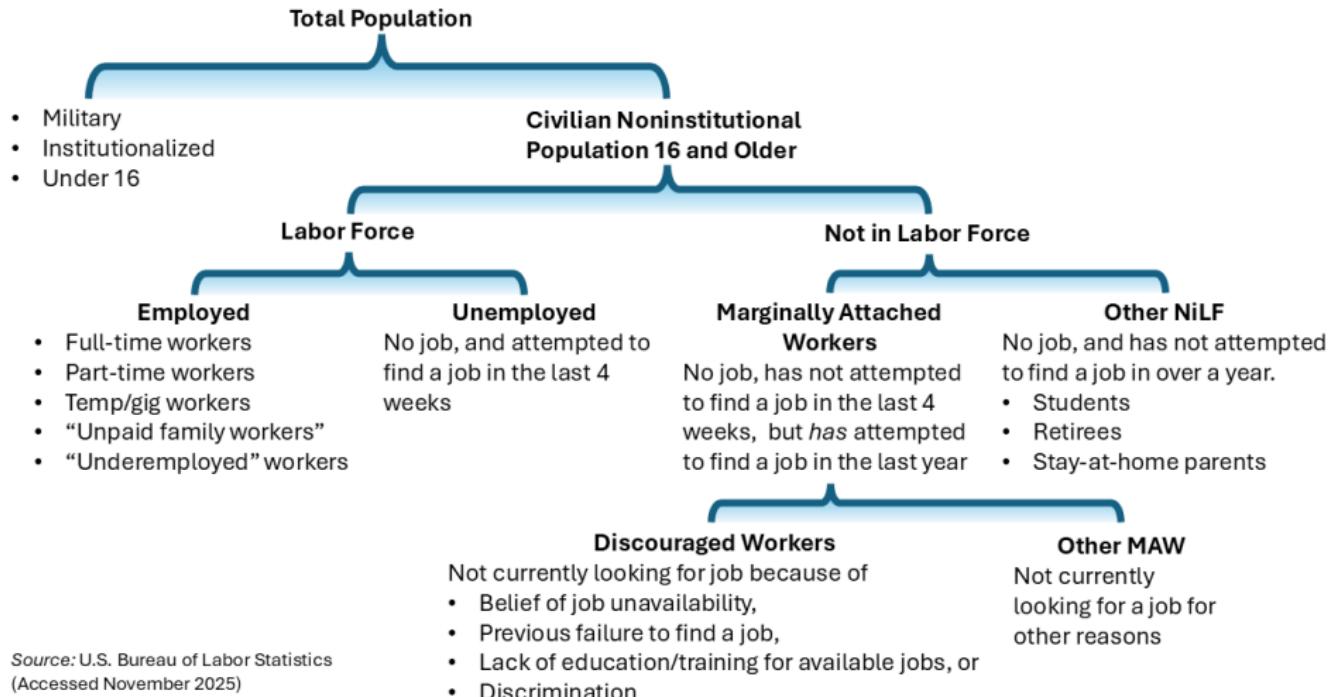
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Classifying the Population

Total Population

- Military
- Institutionalized
- Under 16

Civilian Noninstitutional Population 16 and Older

Labor Force

Not in Labor Force

Employed
- Full-time workers
- Part-time workers
- Temp/gig workers
- "Unpaid family workers"
- "Underemployed" workers

Unemployed
No job, and attempted to find a job in the last 4 weeks

Marginally Attached Workers
No job, has not attempted to find a job in the last 4 weeks, but *has* attempted to find a job in the last year

Other NiLF
No job, and has not attempted to find a job in over a year.
- Students
- Retirees
- Stay-at-home parents

Discouraged Workers
Not currently looking for job because of
- Belief of job unavailability,
- Previous failure to find a job,
- Lack of education/training for available jobs, or
- Discrimination

Other MAW
Not currently looking for a job for other reasons

Source: U.S. Bureau of Labor Statistics
(Accessed November 2025)

Exercise 1: Classifying Workers

For each of the following scenarios, decide if the subject is

- **A** Employed
- **B** Unemployed
- **C** Not in the Labor Force
- **D** Other

1. Elena worked 40 hours last week as a sales manager for a beverage company.

2. Steve lost his job when the local aircraft manufacturing plant closed down. Since then, he has been contacting other businesses in town trying to find a job.

3. Linda is a stay-at-home mother. She neither holds a job nor looks for one.

4. John was fired in September and gave up looking for work in October because jobs in his area require more experience.

5. Timmy is 17 years old and works 15 hours a week for no pay at his parents' diner.

6. Cindy is 9 years old and attends elementary school.

Exercise 1: Classifying Workers

Solution:

1. *A*, Elena is *employed*.

2. *B*, Steve is *unemployed*.

3. *C*, Linda is not in the *labor force* and is not *marginally attached*.

4. *C*, John is not in the *labor force*. He is *marginally attached* and *discouraged*.

5. *A*, Timmy is *employed*. He is an *unpaid family worker*.

6. *D*, Cindy is not in the *Civilian Noninstitutional Population 16 and Older* because she is under 16.

$$\text{Unemployment Rate} = \frac{\text{Unemployed}}{\text{Labor Force}}$$

$$\text{Labor Force Participation Rate} = \frac{\text{Labor Force}}{\text{Civilian Noninstitutional Population 16 and Older}}$$

- The **Unemployment rate** gives a measure of the health of the national labor market.
- But when an unemployed person stops searching for jobs for 4 weeks, he is moved out of the labor force.
  - This causes the unemployment rate to fall, even though nobody gained employment.
- The **Labor Force Participation Rate** accounts for this by giving a measure of the size of the labor fore.

Exercise 2: Unemployment and Labor Force Participation Rates

For each of the two scenarios, find the unemployment rate and the LFP rate:

1. Suppose there are
   - 3 full-time workers,
   - 1 part-time worker,
   - 2 unemployed workers,
   - 2 soldiers,
   - 1 college student, and
   - 2 retirees.

2. Suppose one of the unemployed workers has not looked for work in 4 weeks and becomes discouraged. Everyone else stays where they are.

Exercise 2: Unemployment and Labor Force Participation Rates

Solution:

- Unemployed $= 2$

- Labor force $=$ 3 full time $+$ 1 part time $+$ 2 unemployed $= 6$

- Civilian Noninstitutional Population 16 and Older $=$
  3 full time $+$ 1 part time $+$ 2 unemployed $+$ 1 student $+$ 2 retirees $= 9$

1. UR $=$ Unemployed/LF $= 2/6 = 33\%$

   LFPR $=$ LF/CNP16O $= 6/9 = 67\%$

2. If an unemployed worker becomes discouraged, then *Unemployed* goes down by 1 and *LF* goes down by 1.

   UR $=$ Unemployed/LF $= 1/5 = 20\%$

   LFPR $=$ LF/CNP16O $= 5/9 = 56\%$

Types of Unemployment

- **Frictional Unemployment** is the short-term unemployment due to the time-consuming process of matching workers with employers.
  - *E.g.* someone who is unemployed for a short time between college and their first job.
  - Always present and not indicative of an unhealthy economy.

- **Structural Unemployment** is due to a shift in the economy that creates a difference between the skills workers have and the skills employers need.
  - *E.g.* the introduction of China to the WTO in 2001 caused US companies to shift manufacturing overseas, eliminating US manufacturing jobs.
  - Painful in the short-run, but typically a sign of economic or technological development.

- **Cyclical Unemployment** is due to an economy-wide economic downturn.
  - *E.g.* the 2008 financial crisis caused a fall in nationwide aggregate demand, which forced many firms to close or lay off workers.
  - In standard theory, this is just bad. Policy-makers will do their best to avoid cyclical unemployment.

Exercise 3: Types of Unemployment

For each of the following scenarios, decide if the unemployment is

A Frictional

B Structural

C Cyclical

1. The development of the automobile causes horseshoe makers to lose their jobs.

2. The Great Depression sweeps across the United States and causes mass unemployment.

3. Artificial intelligence is a cheaper ECON1101 TA than a human, so the PhD students lose their stipends.

4. George moves from Boston to Florida for the weather, and it takes him a few months to find a new job.

5. The legalization of online sports gambling causes a contraction of the brick-and-mortar casino industry, so casino employees lose their jobs.

Exercise 3: Types of Unemployment

Solution:

1. *B*, structural.
2. *C*, cyclical.
3. *B*, structural.
4. *A*, frictional.
5. *B*, structural.