



Who counts as unemployed?

Employed, unemployed or not in the labor force · the two rates · three kinds of unemployment · the natural rate · the business cycle.

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Three boxes

every adult, 16 and over

- **EMPLOYED** any paid work last week, even 1 hour · part-time who want more hours = employed (**underemployed**)
- **UNEMPLOYED** no job + ready to start + **looked** in the last 4 weeks · all three tests
- **NOT IN THE LABOR FORCE** no job, not looking: student · retiree · unpaid work · caring at home · **discouraged worker** (wants a job, stopped looking)
- Coralia: Sione (looking) ⇒ unemployed · Nadia (10 h baking) ⇒ employed · Tomás (gave up) ⇒ out · Lena (student) ⇒ out

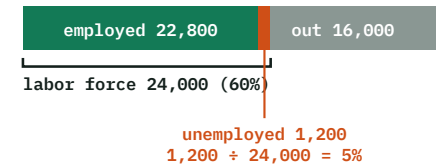
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The rate

unemployment rate

- **Labor force** = employed + unemployed ·
 $\text{rate} = \text{unemployed} \div \text{labor force} \times 100$
- Coralia 2024: $22,800 + 1,200 = 24,000$ · $1,200 \div 24,000 = 5\%$ · Mareth: $1,000 \div 10,000 = 10\%$ · Veloa: $400 \div 4,000 = 10\%$
- Watch out: divide by the **labor force**, not by adults or by the employed · people outside it are not counted

40,000 adults



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Participation

and workers who give up

- $\text{participation} = \text{labor force} \div \text{adults} \times 100$ · Coralia: $24,000 \div 40,000 = 60\%$ · Veloa: $4,000 \div 5,000 = 80\%$
- Unemployed give up ⇒ leave the labor force ⇒ **rate falls, no new job** · Coralia: 400 of 1,200 give up ⇒ $800 \div 23,600 \approx 3.4\%$
- Tarn: $400 \div 2,000 = 20\% \rightarrow 200 \text{ give up} \rightarrow 200 \div 1,800 \approx 11\%$ · employed still 1,600 · participation 67% → **60%**
- ⇒ read the rate **with** the participation rate

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Three kinds

by cause

- **Frictional** = between jobs, still searching · short · always some (Sione, new graduate)
- **Structural** = skills or places no longer fit the jobs · long · even in good years (Farid, steel welder, fiberglass boats)
- **Cyclical** = whole economy slows, spending falls ⇒ jobs cut · returns with the recovery (Leilani, hotel cleaner, 2021)
- Chain: tourists stop ⇒ fewer rooms sold ⇒ layoffs ⇒ more unemployed = **cyclical**

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Natural rate

full employment

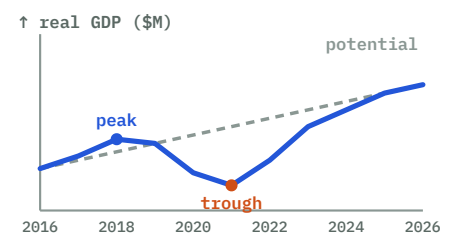
- $\text{natural rate} = \text{frictional} + \text{structural}$ · Coralia: $2\% + 2\% = 4\%$ · never **0%**
- **Full employment** = unemployment at the natural rate (no cyclical part)
- $\text{cyclical} = \text{actual} - \text{natural}$ · 2021: $8\% - 4\% = 4 \text{ points}$ · 2018 boom: $3.5\% - 4\% = -0.5$ (negative in a boom) · Mareth: $4\% - 5\% = -1$ · $9\% - 5\% = +4$

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Business cycle

real GDP around potential

- **Potential output** = real GDP at full employment (the trend) · real GDP moves around it
- **Expansion** ↑ → **peak** (2018) → **recession** ↓ → **trough** (2021: \$880M, \$70M below potential) → expansion
- **Recession** = real GDP falls for months · rule: 2 quarters in a row · ⇒ **cyclical unemployment rises** (Coralia 2021: 8%)



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A real case

USA, 2007-09

- Great Recession: rate ~5% (2007) → ~10% (late 2009) · jobs lost in almost every industry at once ⇒ mostly **cyclical**
- Recovery took years ⇒ part maybe **structural** (some jobs never came back)
- Not counted as unemployed: student · retiree · unpaid work · discouraged worker