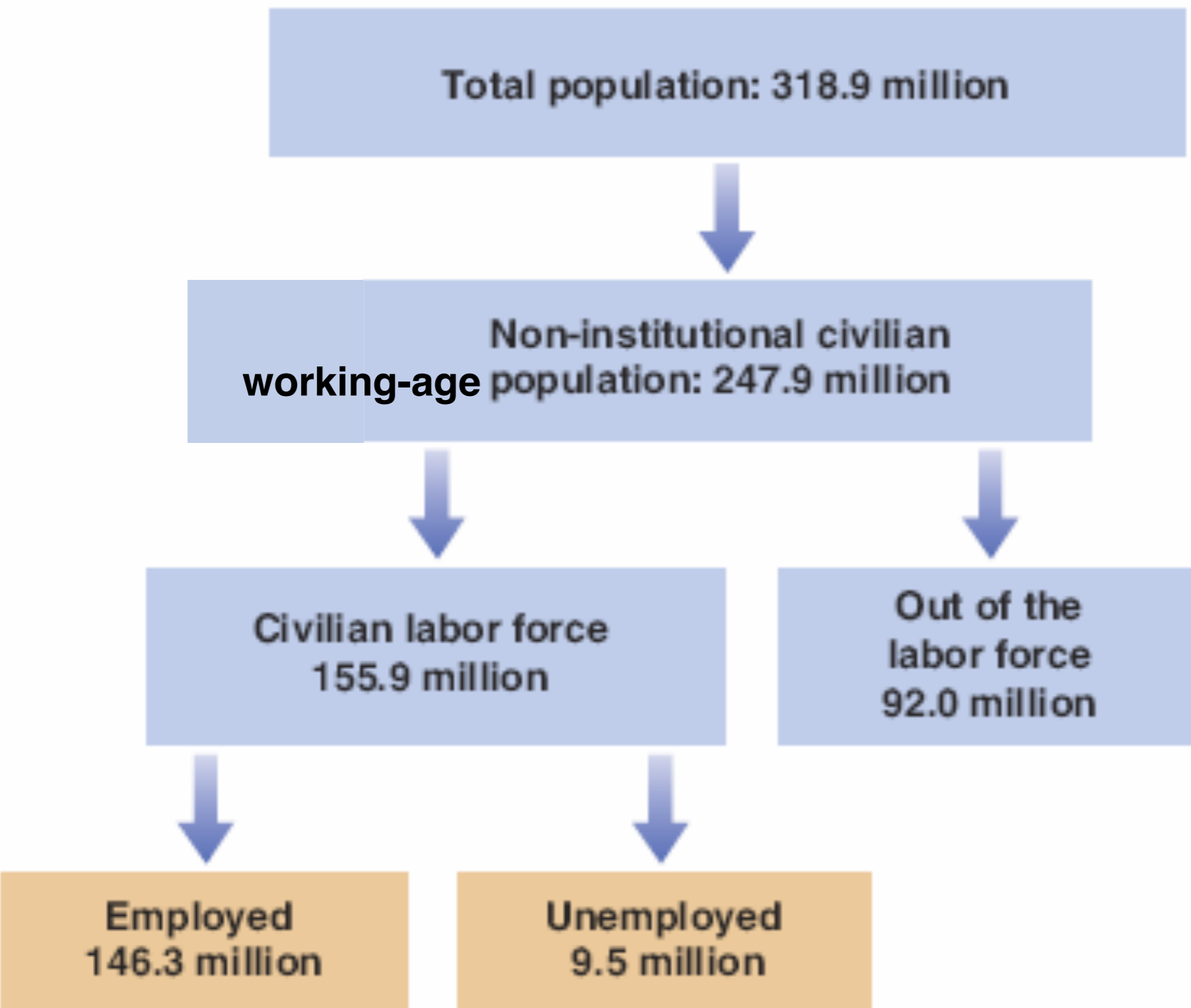


INTERMEDIATE MACROECONOMICS  
MACROECONOMIC CONCEPTS  
6. UNEMPLOYMENT

Pascal Michailat  
[pascalmichailat.org/c4/](http://pascalmichailat.org/c4/)

# US LABOR MARKET IN 2014



- measured using large surveys of households
- in the US: Current Population Survey (CPS) based on responses of 60,000 households every month since 1940
- CPS is conducted by BLS

# WORKING-AGE POPULATION

- a person is in the working-age population if
  - she is 16 years of age and older (no upper age limit)
  - she resides in the 50 states and the District of Columbia
  - she is not inmate of institutions (penal and mental facilities, homes for the aged)
  - she is not on active duty in the Armed Forces

# EMPLOYMENT / UNEMPLOYMENT

- a person is employed if she has a full-time job or does temporary or part-time work during the survey week
- a person is unemployed if
  - she does not have a job
  - she is available to work
  - she has been actively looking for a job in the last four weeks (contacting firms, sending CVs, applying to vacancies)

# UNEMPLOYMENT RATE

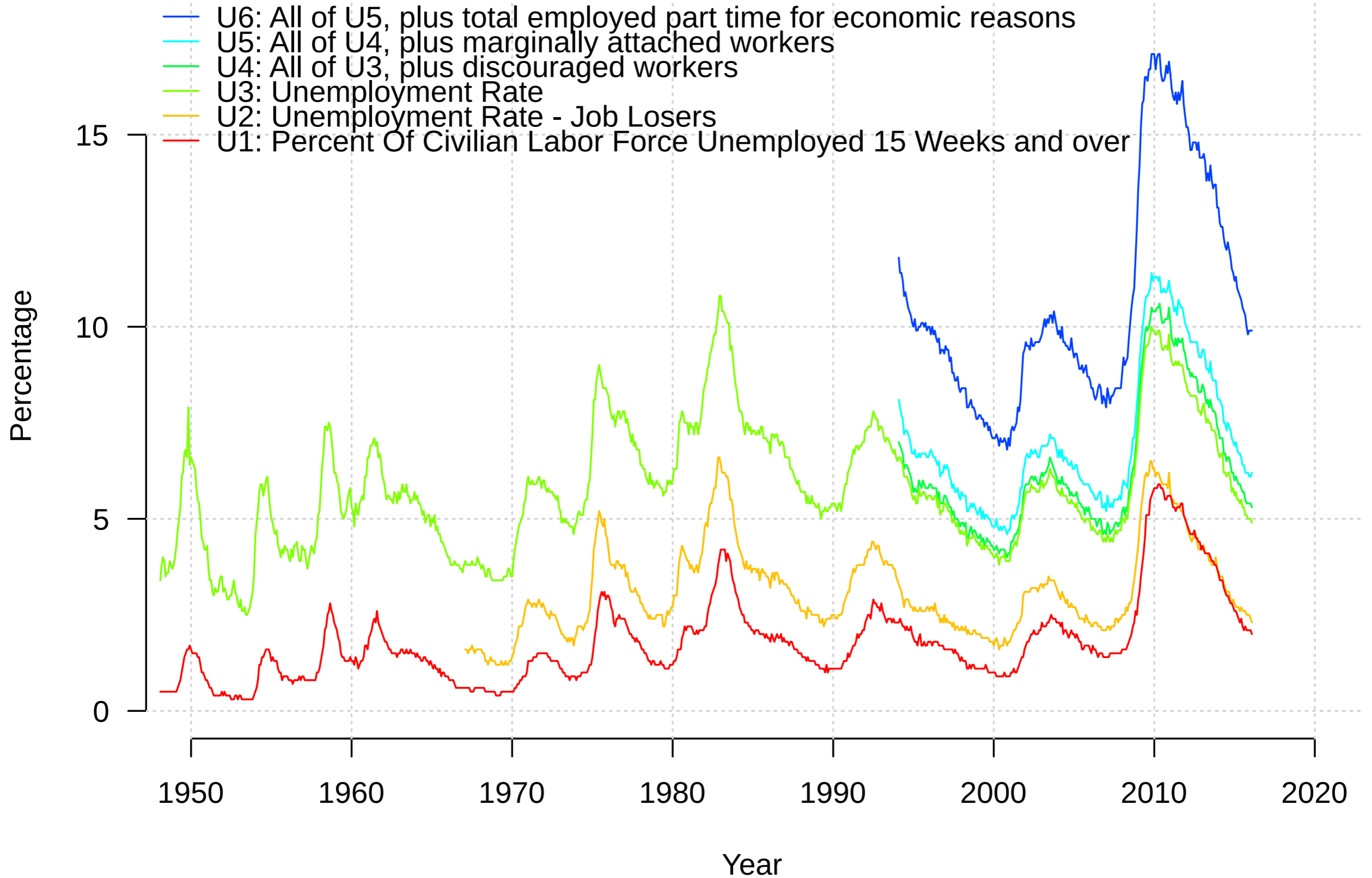
$$\text{unemployment rate} = \frac{\text{unemployment}}{\text{labor force}}$$

- unemployment rate in the US in 2014:
  - $9.5 / 155.9 = 6.1\%$
- conversely employment rate =  $100\% - 6.1\% = 93.9\%$ 
  - share of labor force with a job

# DISCOURAGED WORKERS

- discouraged workers are those who **give up looking for a job**
  - they are no longer counted as unemployed
  - but they would like a job if they were offered one
- some measures of unemployment account for them
  - six measures: U1 — U6
  - official measure: U3
- because of discouraged workers, a higher unemployment rate is sometimes associated with a lower participation rate

# 6 MEASURES OF UNEMPLOYMENT



# WHY DO WE CARE ABOUT UNEMPLOYMENT?

- high or low unemployment is a symptom of inefficiency
  - high unemployment: many resources are idle
  - low unemployment: labor shortages so many resources are wasted trying to recruit workers
- unemployment reduces the welfare of the unemployed, especially those unemployed for long periods of time
  - low mental and physical health (anxiety, low self esteem, low life satisfaction), even after controlling for income



# EFFECTS OF UNEMPLOYMENT ON HAPPINESS (GERMAN DATA)



# IN/OUT OF LABOR FORCE

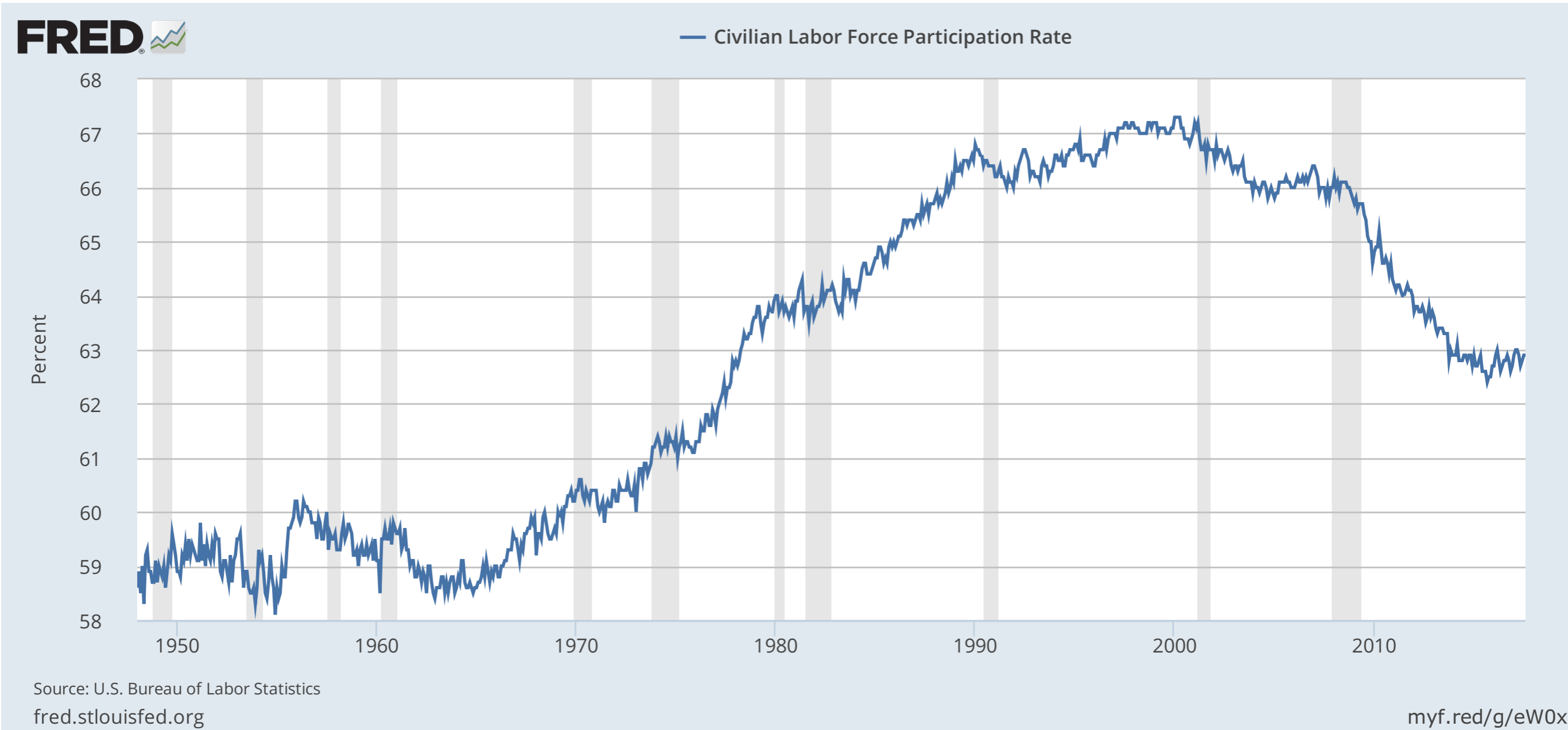
- in the labor force: employment + unemployment
- out of labor force: of working age, but without a job and not looking for a job
  - retired worker
  - university student
  - stay-at-home parent
- working-age population: labor force + out of labor force

# LABOR-FORCE PARTICIPATION RATE

$$\text{participation rate} = \frac{\text{labor force}}{\text{working-age population}}$$

- participation rate in the US in 2014:
  - $155.9 / 247.9 = 62.9\%$
- conversely non-participation rate =  $100\% - 62.9\% = 37.1\%$ 
  - share of working-wage population out of labor force

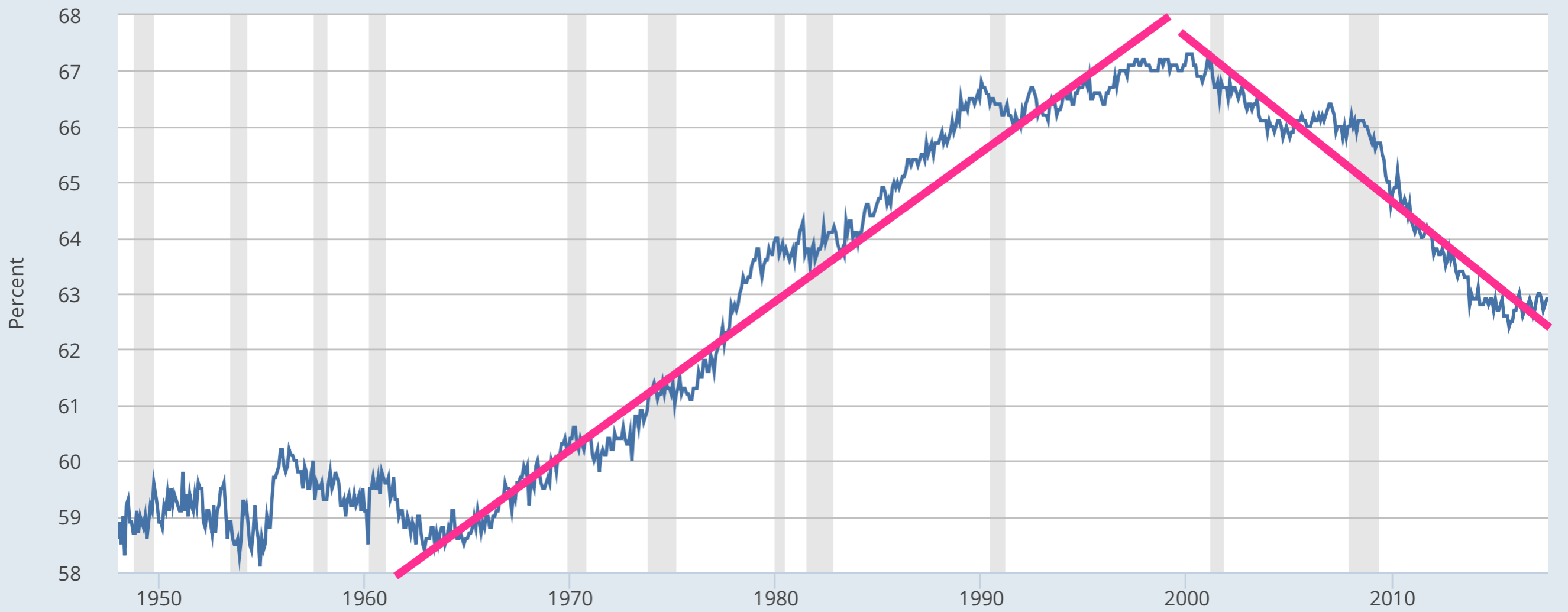
# US PARTICIPATION RATE



# US PARTICIPATION RATE



— Civilian Labor Force Participation Rate



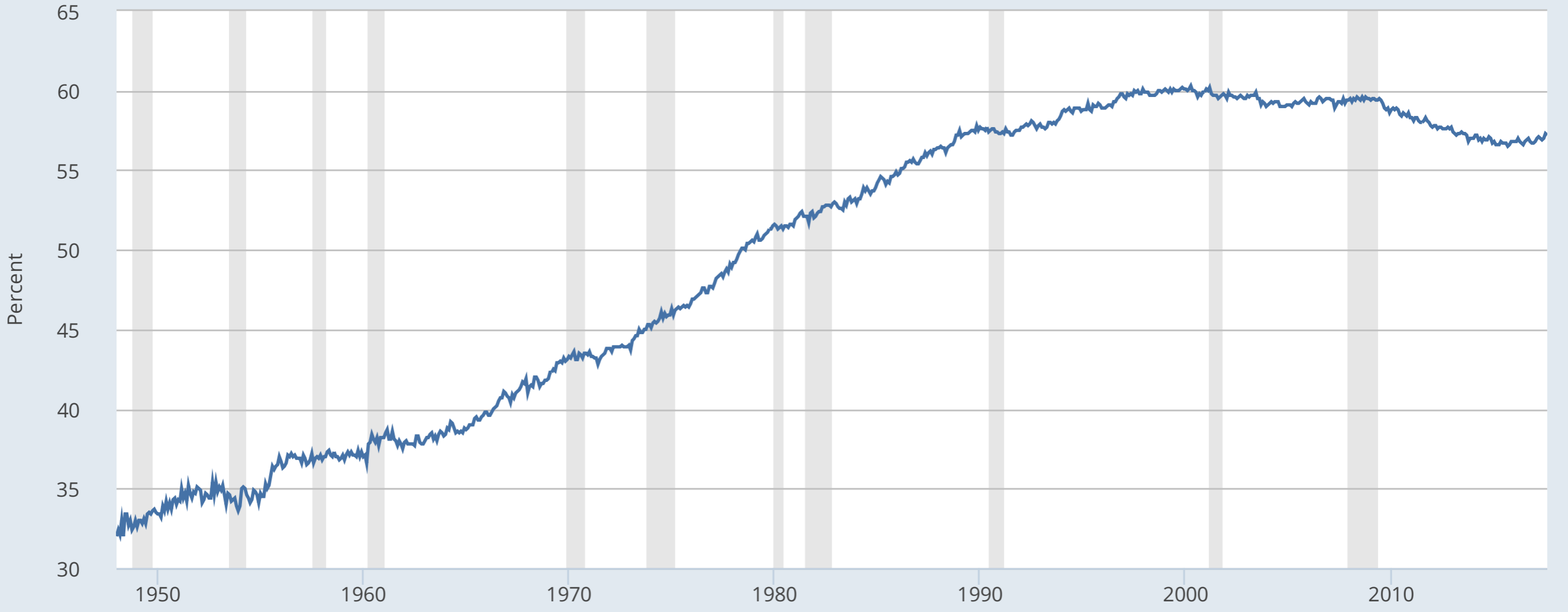
Source: U.S. Bureau of Labor Statistics  
fred.stlouisfed.org

myf.red/g/eW0x

# US PARTICIPATION RATE: WOMEN



— Civilian Labor Force Participation Rate: Women



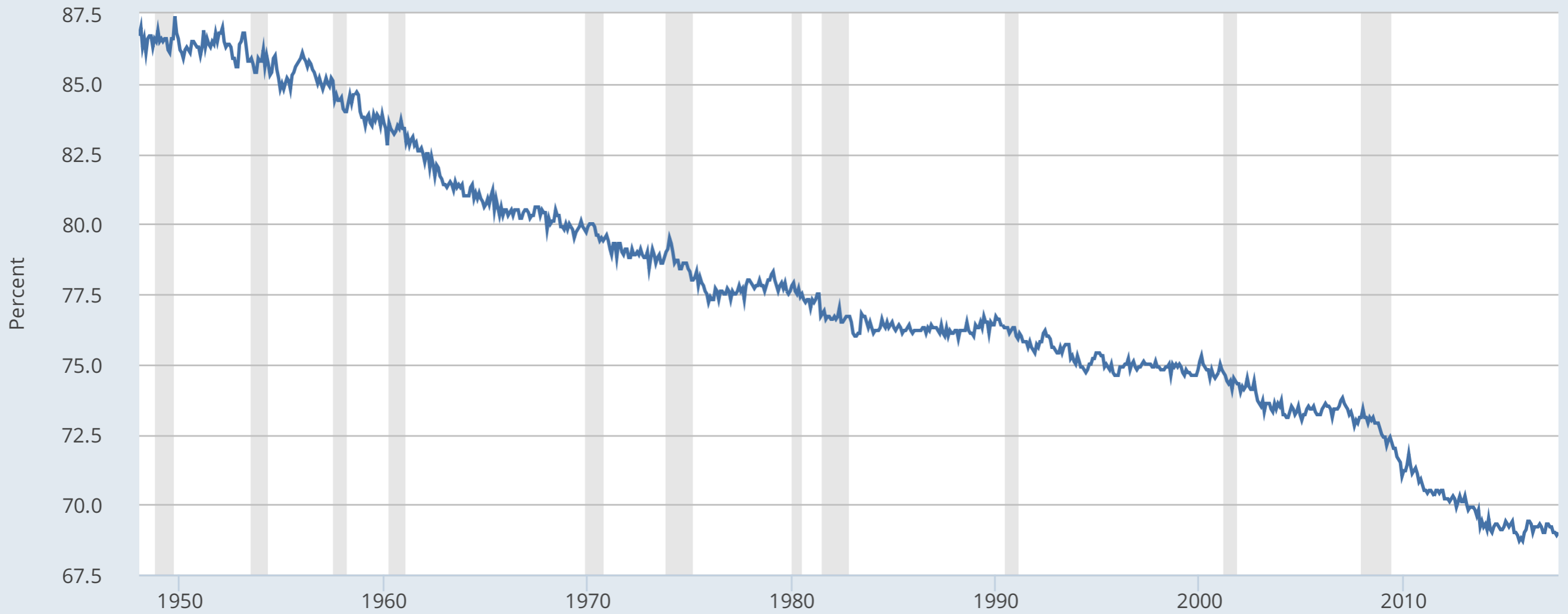
Source: U.S. Bureau of Labor Statistics  
fred.stlouisfed.org

myf.red/g/f3c7

# US PARTICIPATION RATE: MEN



— Civilian Labor Force Participation Rate: Men



Source: U.S. Bureau of Labor Statistics  
fred.stlouisfed.org

myf.red/g/f3c4

# US LABOR FORCE PARTICIPATION

- <https://www.nytimes.com/2017/09/19/business/economy/labor-shortage.html>
- **aging / retirement of baby-boomers** contributes to reduced labor-force participation
- 30% of prime-age male who left the labor force are on **disability insurance**
- **opioid prescriptions** (painkillers) could explain 20% of decline in male participation and 25% of decline in female participation
- reduced labor-force participation may create labor shortage:  
how to attract workers back in labor force?