

Chapter 9

Unemployment and its natural rate

Learning objectives

- Measuring unemployment
- Unemployment and process of job search process
- Unemployment and minimum-wage laws
- Bargaining between firms and unions
- Efficiency wage and unemployment results

Unemployment and its natural rate

- Problems of unemployment:
 - Long-run vs. short-run problems
- The economy's *natural rate of unemployment* refers to the amount of unemployment the economy normally experiences.
- *Cyclical unemployment* refers to the year-to-year fluctuations in unemployment around the natural rate.

Identifying unemployment

- How is unemployment measured?
- What problems arise in interpreting the unemployment data?
- How long does the typical spell of unemployment last?
- Why will there always be unemployed people?

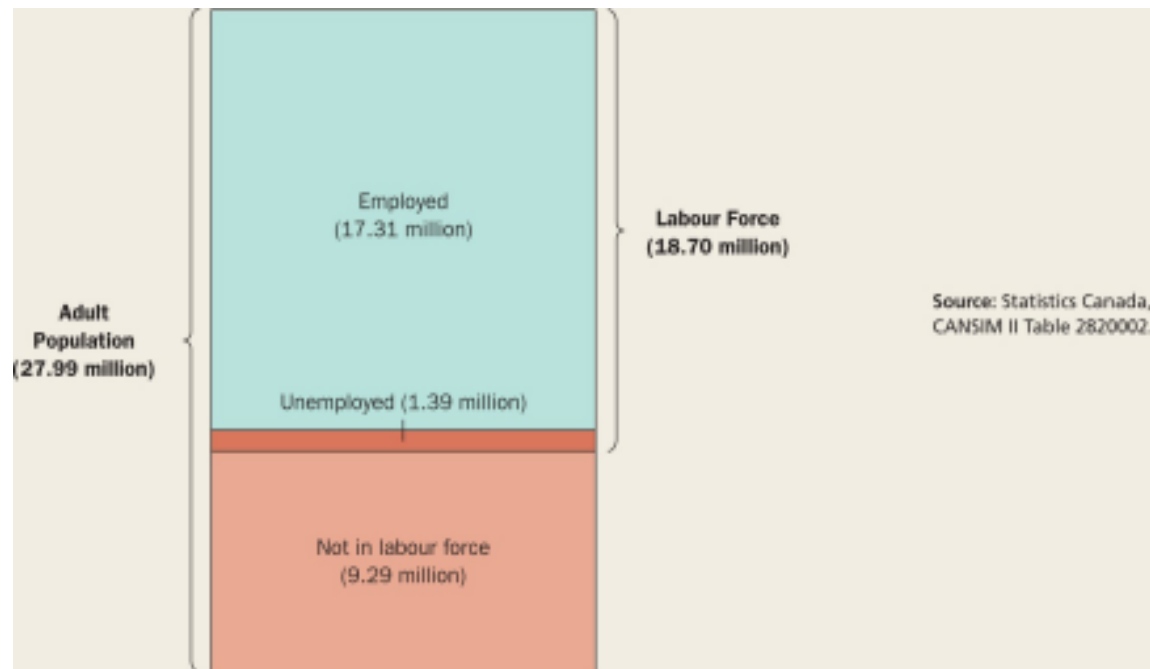
How Is Unemployment Measured?

- Statistics Canada (SC) conducts the Labour Force Survey (LFS).
- Data are collected on:
 - Unemployment
 - Employment
 - Length of workweek
 - Duration of unemployment

Survey methodology

- From the results of the survey, each adult (aged 15 and older) from the survey is either:
 - employed (spent some time in the previous week working at a paid job)
 - unemployed (on temporary layoff or is looking for work)
 - not in the labour force (none of the above, e.g., full-time student, a retiree, homemaker)

The breakdown of the population in 2011



Various statistics: labour force

- Labour force: the total number of workers, including both the employed and the unemployed.

$$LF = \text{No. of employed} + \text{No. of unemployed}$$

Various statistics: unemployment rate

- Unemployment rate: the percentage of the labour force that is unemployed.

$$U = \frac{\text{No. of unemployed}}{\text{LF}} \times 100$$

Various statistics: labour force participation rate

- Labour force participation rate: the percentage of the adult population that is in the labour force.

$$\text{LFPR} = \frac{\text{LF}}{\text{Adult population}} \times 100$$

Exercise

Compute the labour force, u-rate, adult population, and labour force participation rate using this data:

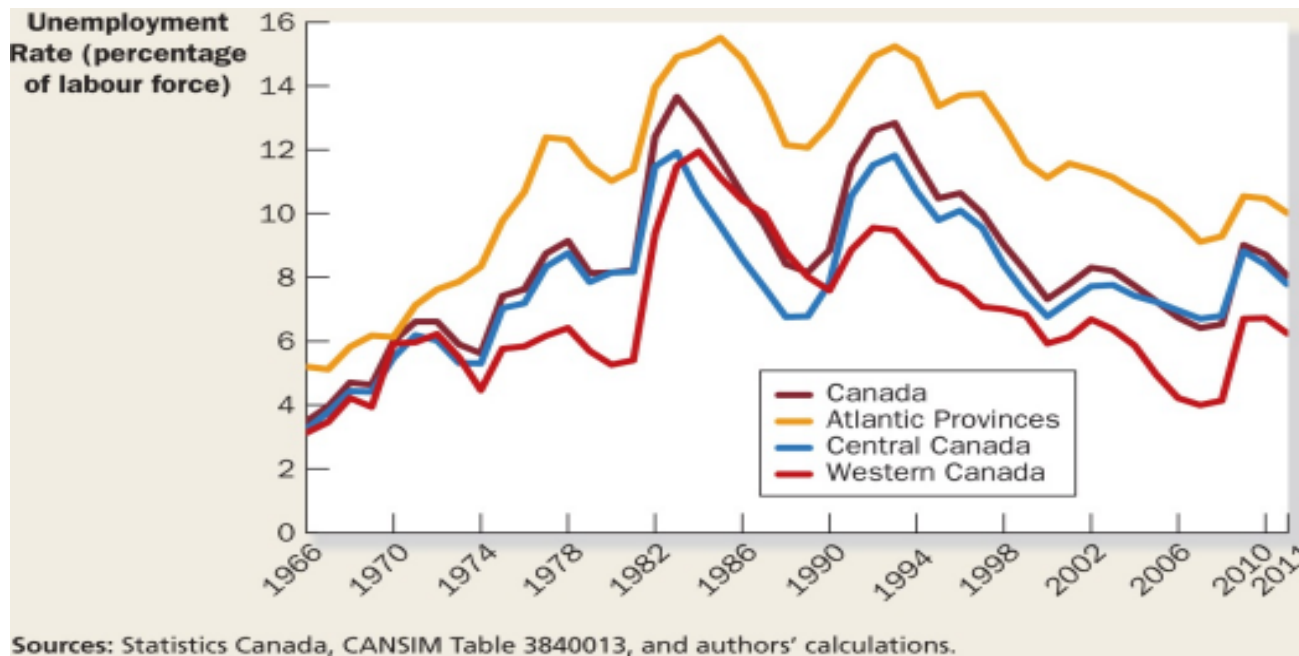
Adult population of Canada by group (x 1000), Sept. 2013	
# of employed	17,780.7
# of unemployed	1,325.0
not in labour force	9,657.2

The Labour-Market Experiences of Various Demographic Groups

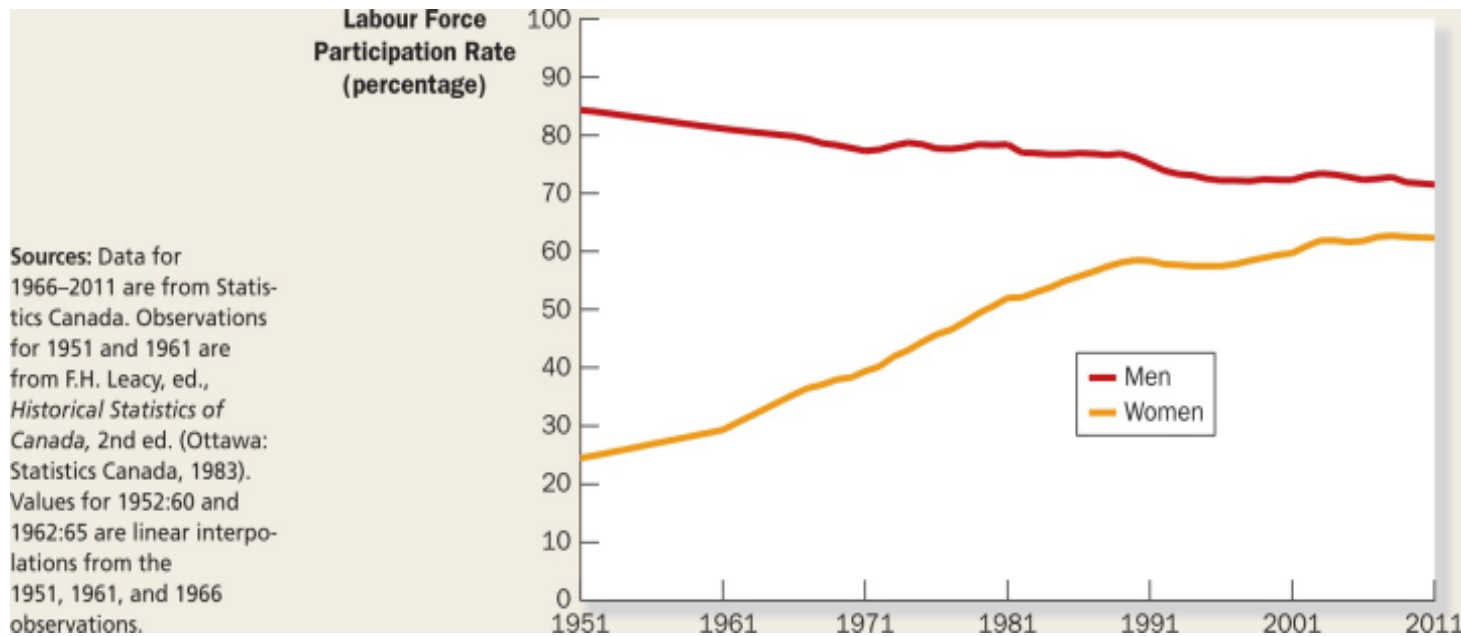
Demographic Group	Unemployment Rate	Labour-Force Participation Rate
Both sexes, 15 years and over	7.4%	66.8%
Males, 15–24 years	15.9	64.7
Males, 25–44 years	6.6	91.3
Males, 45–64 years	6.4	80.1
Females, 15–24 years	12.4	64.4
Females, 25–44 years	6.4	82.1
Females, 45–64 years	5.6	71.0

Source: Statistics Canada, CANSIM II
Table 2820002.

Canadian and Regional Unemployment Rates 1966-2011



Labour-Force Participation Rates for Men and Women since 1951



Questions?

- Does the unemployment rate measure what we want it to?
- How long are the unemployed without work?
- Why are there always some people unemployed?

Does the unemployment rate measure what we want it to?

- Movements into and out of the labour force are common and complicate the measurement of the amount of unemployment.
- Because people move into and out of the labour force often, statistics on unemployment can be difficult to interpret.

Discouraged searchers

- Discouraged searchers: individuals who would like to work but have given up looking for a job.
- In contrast some people have reported to be out of the labour force when in actual fact they want to work.

Alternative measures of labour underutilization

Measure and Description	Percentage of the Labour Force
Unemployed 1 to 4 weeks	2.5%
Unemployed 5 to 13 weeks	2.0
Unemployed 14 to 25 weeks	1.1
Unemployed 26 to 52 weeks	1.1
Unemployed more than 52 weeks	0.8
Official Unemployment Rate	7.4
Discouraged searchers	0.2
Those awaiting recall	0.6
Involuntary part-time workers	1.6
Official rate + discouraged searchers + those awaiting recall + involuntary part-time workers	9.8

Sources: Statistics Canada, CANSIM II Tables 2820048 and 2820086, and authors' calculations.

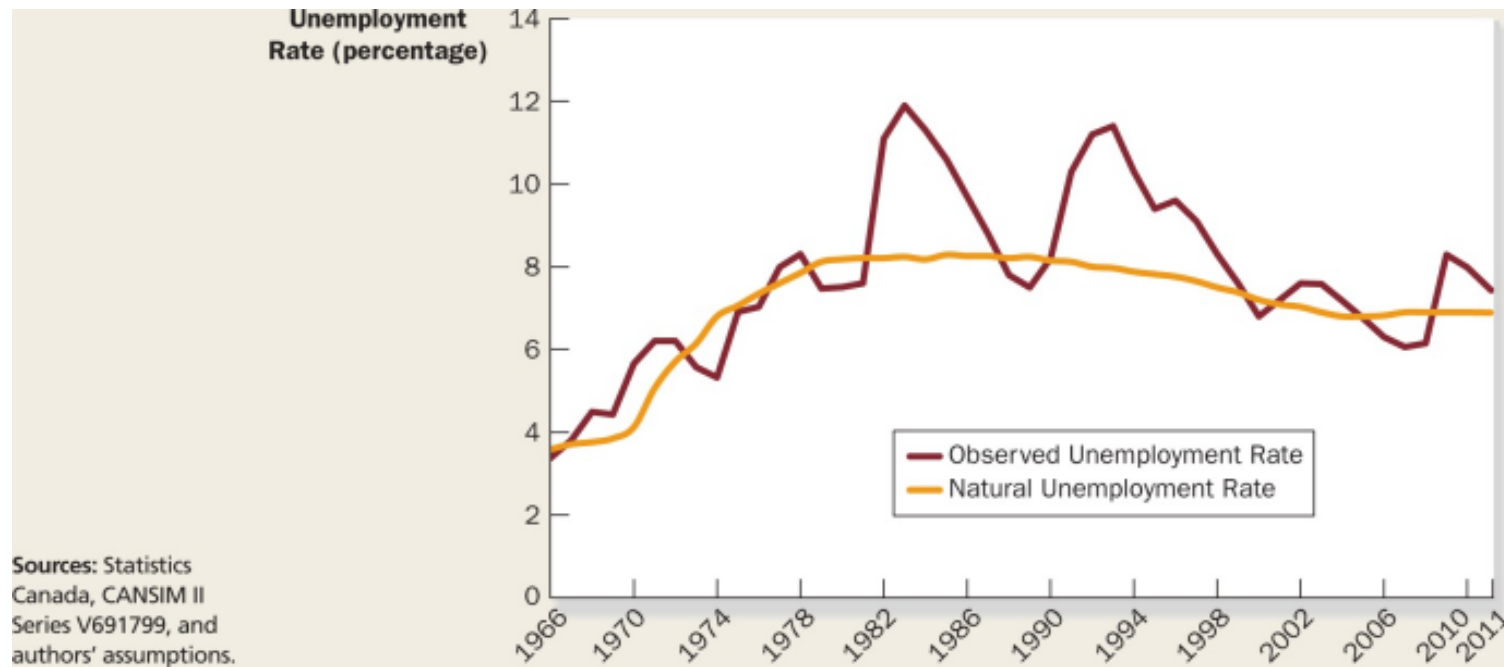
Spell of unemployment

- In 2011, the average spell of unemployment lasted 18.8 weeks.
- Policy solutions directed toward fixing the unemployment problem should be directed at those suffering prolonged spells of unemployment.
- In 2011, the average spell of unemployment ranged from a low 13.9 weeks in Prince Edward Island to a high of 23.2 weeks in the province of Quebec.

Why are there always some people unemployed?

- There are always workers without jobs, even when the overall economy is doing well.
- Natural unemployment rate: the rate of unemployment to which the economy tends to return in the long run
- The natural rate of unemployment in Canada is between 6 percent and 8 percent.

Observed and Natural Unemployment Rates, 1966–2011



Unemployment in the long-run

- Frictional unemployment: it takes time for workers to search for jobs the best suit their tastes and skills.
 - Job search
- Structural unemployment: the number of jobs available in some labour markets is insufficient to provide a job for everyone who wants one
 - Wage laws
 - Unions
 - Efficiency wages

Job search

- Job search: the process by which workers find appropriate jobs given their tastes and skills.
- Workers differ in their tastes and skills, jobs differ in their attributes, and information about job candidates and job vacancies is disseminated slowly among the many firms and households.

Why some frictional unemployment is inevitable

- Frictional unemployment is often the result of changes in the demand for labour by firms.
- Frictional unemployment is inevitable simply because the economy is always changing.
- The process where jobs are created in one industry but destroyed in another leads to higher productivity and higher living standards.
- The mismatch between available jobs and people seeking employment explains why one in every eight unemployed worker is without a job.

Public policy and job search

- Government programs try to facilitate the job search in various ways:
 - Government-run employment agencies
 - Public training programs

Employment insurance

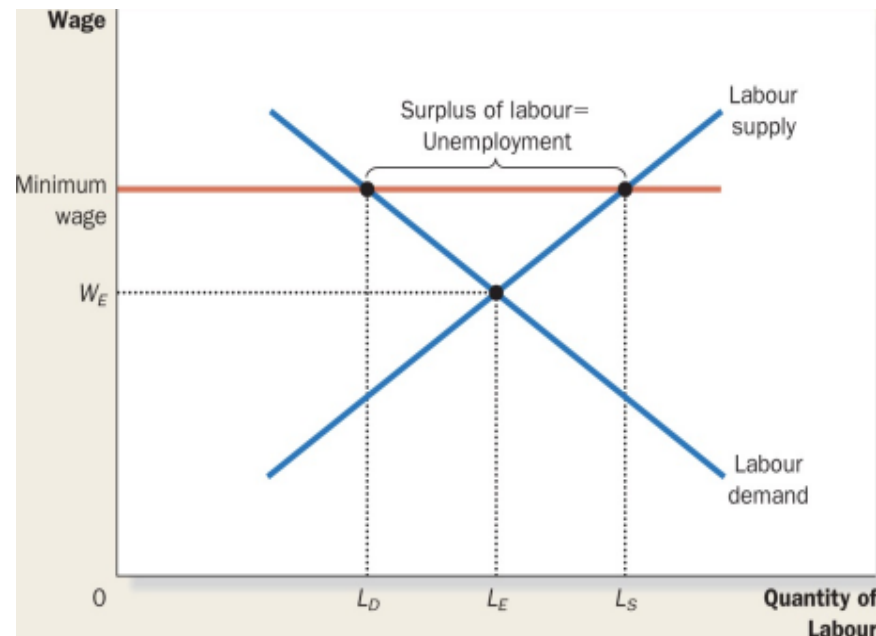
- Employment insurance (EI): a government program that partially protects workers' incomes when they become unemployed
- EI may reduce the hardship of unemployment, but the design of the program influences workers' behaviour in ways that will increase the unemployment rate.

Structural unemployment

- Possible explanations:
 - Minimum-wage law
 - Unions
 - The efficiency wages

Minimum-wage laws

- Minimum-wage laws may not be the most important explanation for structural unemployment, it is nevertheless an important point.



Union and collective bargaining

- **Union: a worker association that bargains with employers over wages and working conditions**
 - **As of 2011, 30 percent of all employed workers in Canada belong to unions.**

The economics of unions

- Collective bargaining: the process by which unions and firms agree on the terms of employment.
- Strike: the organized withdrawal of labour from a firm by a union.

Are unions good or bad for the economy?

- Critics of unions argue that they are merely a type of cartel.
- Advocates of unions contend that unions are a necessary antidote to the market power of the firms that hire workers.
- Advocates also claim that unions are important for helping firms respond efficiently to the concerns of workers.

The theory of efficiency wages

- Efficiency wages: above-equilibrium wages paid by firms in order to increase worker productivity
- According to this theory, it may be profitable for the firm to keep wages high even if it causes a surplus of labour (or unemployment).
- Higher wages may increase the efficiency of workers.

The theory of efficiency wages

- **Possible efficiency-wage theories:**
 - **Worker health**
 - **Worker turnover**
 - **Worker effort**
 - **Worker quality**

Exercise: who is unemployed?

Classify each of the following individuals in one of the following categories: employed, unemployed, or not in the labour force.

- Steve worked 40 hours last week in a music supply store.
- Last week, Elizabeth worked 10 hours as a computer programmer for the National Video Company and attended night classes at the local college. She would prefer a full-time job.
- Roger lost his job at the R-gone Manufacturing Company. Since then he has been trying to find a job at other local factories.

Problems and applications

- In-class – NA
- TA –Q13