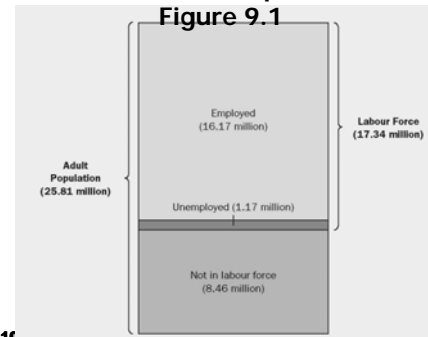


## Chapter 9

### Unemployment and Its Natural Rate

The Breakdown of the Population in 2005 – Figure 9.1



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### Measuring labour market performance

- Who's considered to be officially unemployed?
  - Without work and 'ACTIVELY' seeking work
  - On layoff expecting recall
  - Hired, but waiting to start work within a month
- Several labour market indicators show different things
  - $LF = U + E = 1.2 + 16.2 = 17.4$  million
  - $UR = U / LF * 100 = 1.2 / 17.4 = 6.8 \%$

- $LFPR = LF / \text{Working Age Pop.} * 100 = 17.3 / 25.8 = 67.2 \%$ 
  - Labour force participation ratio
- $\text{Employment to Population Ratio} = E / \text{Working Age Pop.} * 100 = 16.2 / 25.81 = 62.7 \%$
- Figures for 2005 in these slides characterise a healthy labour market

- Figures for Jan 2011
  - Employment = 17.2 million
    - + 327,000 from Jan 2010
  - Unemployment = 1.45 million
    - - 78,600 from Jan 2010
  - Labour force = 18.6 million
    - + 249,000 from Jan 2010
  - Adult, working age population = 27.8 million

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- $LFPR = LF / \text{working age population} = 18.6 / 27.8 = 67 \%$ 
  - Little changed since 2005
- $\text{Employment to Population Ratio} = E / \text{Working Age Pop.} * 100 = 17.2 / 27.8 = 62 \%$ 
  - slight deterioration relative to 2005
- Unemployment rate = 7.8 %
  - Ontario's rate is 8.1 %, above national average
  - Down 0.5 % points since Jan 2010 (for

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- Between Dec. 2010 and Jan. 2011
  - Employment rose by 69,200 (by + 0.4 %)
  - The unemployment rate rose from 7.6 % to 7.8 %
  - The labour force rose by 106,400 (by + 0.6 %)
    - These are would-be workers who might or might not have found work
    - The rise in employment did not suffice to accommodate the new entrants
  - Unemployment rose by 37,200 (+ 2.6 %)
    - They could have been either new entrants or job losers

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- Two major patterns for the unemployment rates
  - Men have higher unemployment rates than women
    - Currently among those 25 years of age or older, men 6.7 %, women 6.4 %
  - Youth workers have higher UR than prime-age workers, who in turn have higher UR than older workers
    - Currently, for those under 25 years of age, 14.4 %, while for those over 25 years of age, 6.5 %
  - Canada has a very marked regional pattern of unemployment, as shown in figure 9.2

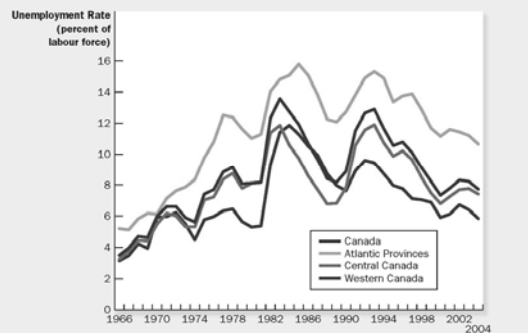
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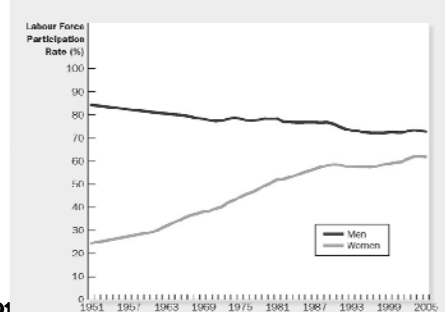
### Canadian and Regional Unemployment Rates



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### Labour-Force Participation Rates for Men and Women since 1951



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- As Table 9.1 shows, LFPR for men is higher than it is for women
- Major development for the LFPR
  - Mens' rates have trended downwards since the 1950s, but that trend is over and will be reversed
  - Womens' rates have trended upwards (a lot) over the same period, but leveled off by 1990

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- Why bother with these different indicators? They capture different aspects of a multi-faceted labour market
  - in particular, if the UR is declining, is it due to job creation or people going NLF?
    - E.g. measured UR in most of continental Europe is higher than Canada, plus they also have a much lower LFPR and Emp. to Pop. ratio as so many workers leave the labour force

- **Measured** UR has been lower in the USA than in Canada until fairly recently
  - in part because some workers who report that they are unemployed in Canada would report that they are NLF in the USA
    - reflected in the LFPR
  - In the past there were slightly fewer jobs available relative to the population in Canada compared to the USA
    - reflected in the Employment to Population ratio
    - No longer true

- **Current unemployment rate for selected countries**
  - Japan 4.9 %
  - UK 7.9 %
  - France 9.7 %
  - Germany 7.4 %
  - Italy 8.6 %
  - Australia 5.0 %
  - Spain 20.2 %
  - Entire EURO area: 10 %

## How accurate an indicator is the UR?

- **Biggest and most controversial issue in determining the degree to which the official unemployment rate actually measures labour market performance: among the jobless, who is *actively* seeking work?**

- **Discouraged workers are jobless workers who are not considered to be unemployed because they are not “actively” seeking work.**
  - If they were considered as unemployed, the measured UR would be much **HIGHER**.
  - In USA, while the ‘official’ UR is 9.4 %, the ‘unofficial’ UR is thought to be closer to 17 %

## Illustration of massaging the UR

- **Suppose that LF = 100 and U = 7**
  - Then UR = 7 %
- **Now suppose that 4 prisoners are up for parole**
  - If they are released, they are bound to be jobless, and if they are deemed to be actively seeking work, UR =  $(7 + 4) / (100 + 4) = 10.6 \%$
  - If they are not released, they remain NLF, and UR does not change – it is still 7 %
  - In either case, the true state of labour market is unchanged, but the official unemployment rates diverge

## Anatomy of Unemployment

- **Flows into unemployment**
  - **Job losers**
    - Largest source, very counter-cyclical
    - Even during good times, many layoffs occur
  - **Quitters**
    - Cyclical (high during good times, low during bad times)
  - **Entrants and re-entrants into the LF**
    - Cyclical

- **Flows out of unemployment**
  - employment (finding work)
    - even during bad times, people are hired
  - NLF
- **The duration of unemployment**
  - Extremely variable, as some of the jobless are out of work for years while others find work within days
  - Very little long-term unemployment in Canada (defined as out of work for more than a year)

## Main point

- The *Static* view of unemployment - that the stock of unemployed workers has all been unemployed since the recession began, and they won't find work until it ends - is invalid

- **Truth: The labour market is more *Dynamic*, with workers constantly flowing in and out of unemployment**
  - During good times, some workers are laid off
  - During bad times, some workers are hired
  - Recent data from the USA:
    - For every 100 people employed in October of 2010, 95 still employed in November, 2 have lost jobs, and 3 are NLF
    - For every 100 people unemployed in October of 2010, 17 found jobs in November, 64 are still unemployed, and 19 are NLF

- Different demographic groups and different skill/education groups have very different unemployment experiences

## Types of Unemployment

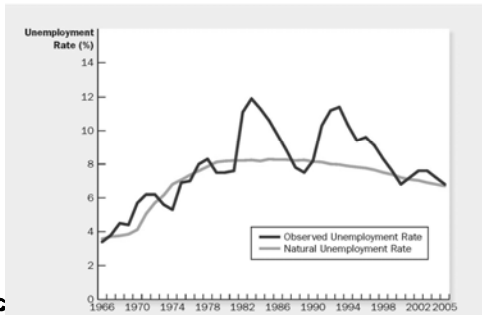
- **Frictional**
  - has a positive economic function
- **Structural**
  - Very economically harmful and difficult to remedy
- **Cyclical or demand deficient**
  - Generally occurs in recessions
  - This is what we are now experiencing – big time

- **Frictional unemployment: associated with normal turnover as good labour market matches take time to form.**
  - A 3 % rate of frictional unemployment is thought to be desirable
- **Structural unemployment: pool of jobless workers ill-suited for jobs that are available**
  - Poor job training and education
  - low geographic mobility
  - Somewhat of a problem in Canada
    - Especially now

- Cyclical unemployment: a global shortage of jobs in the labour market
  - That is the big problem now
- The natural rate of unemployment is the one that exists when the economy is near its capacity
  - Cyclical unemployment is zero, and all unemployment can be characterised as either structural or frictional
  - It is notional, and can only be estimated

- The only sustainable UR is the natural rate of unemployment
  - If the actual rate dips below the natural rate, inflation takes off

FIGURE 9.4: Observed and Natural Unemployment Rates, 1966–2005



### Big controversy - How high is 'natural' unemployment?

- 5 % or lower, if it exists at all, according to "left-wing" groups.
  - Almost all of the current level of unemployment is cyclical
    - This view was valid during great depression and depths of recession
    - They find the very notion offensive
- 7-8%, many "right-wing" analysts used to say
  - Much of the existing level of unemployment is structural
    - That view is valid in continental Europe
    - They have been proven wrong, since we reached 5.8 % without provoking inflation
- It can definitely change as a result of government policy, albeit gradually

### Explanations of Unemployment

- Job search
- Minimum wages
- Unions
- Efficiency wages
  - Most of this analysis is right-wing in perspective

- Job search
  - Already mentioned in the context of frictional unemployment
  - Matching the right worker with the right job is time consuming and resource consuming
  - A lot of sectoral change in the economy causes 'churning', which means that jobs are created and destroyed simultaneously, necessitating much job search
  - Basic idea: the better and the faster the matching process, the more efficient the labour market

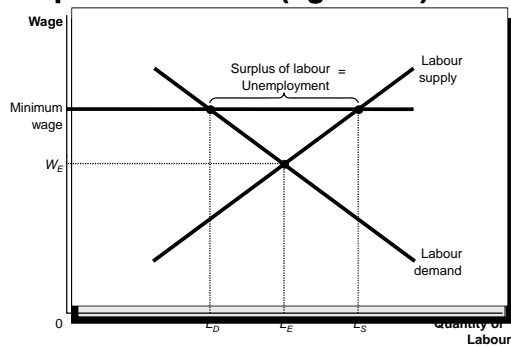
– There is a long passage on Employment Insurance

- Most economists believe that it aggravates the level of unemployment by reducing the incentive to search for new work (subsidizing leisure) and, by greatly increasing the incomes of seasonal workers, increases their number (and hence the degree of seasonal unemployment)
- There is plenty of empirical evidence to suggest that firms and workers alter their employment behaviour in response to Employment Insurance program
  - Called ‘gaming the system’
- Must read page 203 in the fourth edition VERY carefully

• Minimum wage laws

- “If the wage is kept above the equilibrium level for any reason, the result is unemployment” (p. 204)
- The authors have structural unemployment in mind
- Applies to only low-skilled workers
- An extremely emotive issue
- Empirical evidence suggests that it does reduce the growth in employment

**Unemployment from a Wage Above Equilibrium Level (figure 9.5)**



• Unions and Collective Bargaining

- Learn institutional details on your own
- Model works just like the minimum wage, with a going wage above the equilibrium level, that can contribute to structural unemployment
- Textbook briefly goes over the pros and the cons
  - Also an extremely emotive issue towards which views tend to be subjective

• Efficiency wages

- Like the case of the minimum wage and the union wage, the going wage exceeds the equilibrium level, which contributes to structural unemployment
- Unlike the two previous cases, the employer pays this wage voluntarily
- Various rational reasons why he/she might pay more than the going wage, but the level of employment is likely to be lower than what would otherwise be the case