

## Chapter Six

### Labour Demand, Nonwage Benefits, and Quasi-Fixed Costs

Labour Market  
ECONOMICS  
Sixth Edition  
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## Learning Objectives

- Nonwage Benefits
- Hours of Labour
- Payroll Taxes
- Labour Decisions in Economic Downturns
- Creating More Jobs

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## Components of Total Compensation

```

graph TD
    TC[Total Compensation] --- WS[Wages and Salaries]
    TC --- NB[Nonwage Benefits (supplementary labour income)]
    WS --- PTW[Pay for Time Worked]
    WS --- PTNW[Pay for Time Not Worked]
    
```

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## Canadian Compensations Over Time

**Table 6.1 Nonwage Benefits in Large Firms:<sup>1</sup> Components and Changes Over Time**

Nonwage Benefit Categories	Percentage of Gross Payroll				
	1953	1957	1984	1989	1998
Pay for time not worked	5.9	6.7	14.9	13.9	12.4
Pension and welfare plans	5.5	6.4	9.4	9.9	11.5
Payments required by law <sup>2</sup>	1.5	2.0	4.4	5.3	9.3
Bonuses, profit sharing, other	2.2	1.3	3.7	4.4	3.5
<b>Total nonwage benefits</b>	<b>15.1</b>	<b>16.4</b>	<b>32.4</b>	<b>33.5</b>	<b>36.7</b>

*Notes:*  
 1. Figures are for all industries. Separate figures for manufacturing and non-manufacturing are not dramatically different.  
 2. Includes workers' compensation, unemployment insurance, and Canada/Quebec pension plans.  
 Source: KPMG Peat, Marwick, Stevenson, and Kellogg, *Employee Benefit Costs in Canada* (Toronto), 1989, and 1998. The last available issue is 1998.

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## Quasi-Fixed Labour Costs

- Independent of the number of hours worked
- Arise from:
  - hiring costs (nonrecurring)
  - training costs (nonrecurring)
  - dismissal costs (nonrecurring)
  - nonwage benefits (recurring)

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## Quasi-Fixed Costs

- Impact the employer's decisions on:
  - part-time work
  - overtime work
  - hiring and layoff decisions

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## Nonwage Benefits vs. Wages

- Why wouldn't employees prefer wages over nonwage benefits?
  - Generally not taxed
  - Economies of scale for group purchases
  - Perception that they are free
  - Ease of purchase

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## Nonwage Benefits vs. Wages

- Employer's benefits:
  - Planning of production process
  - Reduce need for contingency plans for layoffs and accidents
  - Alter employee behaviour in favour of production
  - Reduce turnover

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## Nonwage Benefits vs. Wages

- Government's benefit:
  - Reduce pressure for government expenditures:
    - public pension plans
    - unemployment insurance
  - Increase social security

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## Quasi-Fixed Labour Costs

- Variable labour costs:
  - vary with hours
- Quasi-fixed:
  - incurred per employee
  - independent of hours

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## Quasi-Fixed Labour Costs

- Given the quasi-fixed costs:
  - firm is no longer indifferent in the way to increase labour input
  - increasing the number of employees becomes more costly

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## Quasi-Fixed Costs

- Firms try to:
  - amortize these costs (i.e., spread them out over a larger number of units)
  - encourage additional hours rather than hire employees.

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### General Effect of Quasi-Fixed Costs

- Increase in the MC of hiring an additional worker relative to MC of working an existing worker longer hours
- Discourage labour expansion away from employment and toward working more hours
- Hiring continues until the present value of additional future revenues = the present value of additional costs

### Profit-Maximizing Employment Rule

$$(H+T) + \sum_{t=0}^N \frac{W_t}{(1+r)^t} = \sum_{t=0}^N \frac{MRP_t}{(1+r)^t}$$

$$\sum_{t=0}^N \frac{MRP_t}{(1+r)^t} > \sum_{t=0}^N \frac{W_t}{(1+r)^t}$$

Where, H + T = hiring and training costs

W<sub>t</sub> = wage rate in period t

R = discount rate

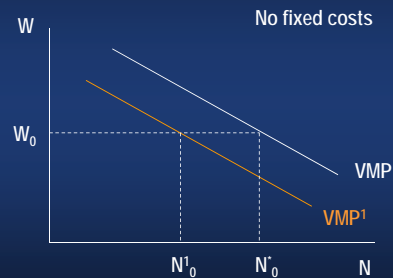
N = expected length of employment rate

MRP<sub>t</sub> (VMP) = the expected value of the marginal product

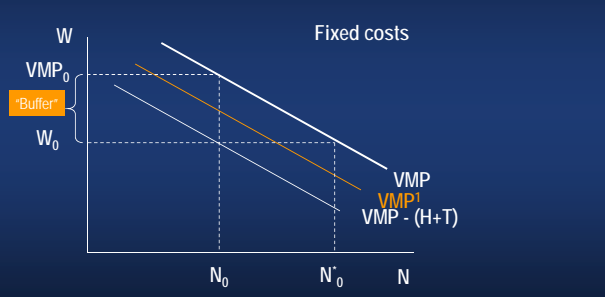
### Phenomena Explained by Fixed Costs

- Overtime
- Temporary help agencies
- Layoffs
- Segmentation of labour markets
- Resistance to work-sharing

### Nonrecurring Fixed Employment Costs and Changes in Labour Demand



### Nonrecurring Fixed Employment Costs and Changes in Labour Demand



### Job Creation and Work-sharing

- Overtime restrictions
- Part-time work
- Subsidizing employment sharing
- Reducing barriers to employment sharing

### Summary

- Labour compensations and nonwage benefits
- Quasi-fixed costs of employment
- The “extensive” vs. “intensive” margins of additional employment hours
- Quasi-fixed costs and a wedge between the VMP of labour and the wage rate
- Labour cost and worksharing programs

End of Chapter Six