4 Chart 2: You can see that there aren't many people with jobs anymore. It's a flat line now, it did not get better. Below 'chart 1' proportion of the working population went down around 2% and stayed there. US declined longer

13 January 2016

Chart 2

- The US was hurt more/hit more in this great recession. Gave rise to the long term unemployment
- Characterization:

$$Unemplyment Rate = \# \frac{Unemployed}{Labour Force}$$

- Labour Force are either employed/ not employed
- Unemployed
 - Don't have a job
 - No work
 - Have to be searching in the past four weeks
 - Have to be available for work
 - Out of the labour force

Chart 5

- sale.co.uk US and Canada don't look at unemployment the
- US: Need to be actively looking for we
- Canada: Passive work (looking mailds and going only e 🕩 find a job)
 - Does not count in the
- In the chart Characa went up une Dyne nt 2 percentage point increase and slow P C DV Jry
- Relative to Canada recession was significantly longer and deeper.
- US (unemployment) \rightarrow They also count the illegal immigrants

Chart 6 {Divide into age groups, seasonally adjusted}

- Many (high schoolers/university/collage) students look for work in the summer
- The stronger is the one that adjusted to young people
- It makes a month pattern

Broad Pattern

 Youth unemployment rate is almost double/prime and 55 or older Unemployment Rate {2 Key Points}

- How many people become unemployed?
- How long do they remain unemployed?
 - Prime age did worse than the older people
 - Might be out of labour force
 - Least affected in the 3

Chart 8 (1976)

- The last seven yeas are unusual
- Canada did really well in the recent recession. Very good compared to previous years

18 January 2016

Long-Term trends in unionization paper: Chart I

- Not really declining because overall its pretty flat
- Historically there is guite a difference with men and woman in unionization. Now female have a higher rate than men in unionization
- Not the only measure of how unions are
- Measure of the overall measure of unionization is how it works from them overall.
- Close shop arrangement: they employ you knowing, or having to be part of a union
- Overall patter of decline, decline for male, and increase female

Table I

- Female density usually stays the same (31.4-31.3)
- Male density decreased (42.1 28.5)
- Men, the greater the age the greater the unionization rate • Numbers rise with the age group
- n rate **CO W CO W CO W CO W K CO W CO W CO W CO W CO W CO W CO CO** • Woman, unionization was in the middle then 177 unionization rate increase by age 5 of 4

It is not true that firms and job

Chart **Dre**

Provincial Variations

- Variation in the cross section and most provinces either very slightly decline or stay flat
- Variation in the legislation
- CROSS SECTION = AT A POINT IN TIME

Table II

- Unionization rates by industries
- All industries, all most are the same
- Cross sectioning
 - Goods-producing industries (27) all are pretty high
 - Heavily unionized, mostly public sectors (2012) have higher rates
 - Public admin very high
- There are patterns of decline
- Manufacturing employment and unionization went down

Look at the structural model

Legal Changes and/or Management Opposition

- Supply and demand interpretation
- US laws tend to become less supportive of unionization
 - Typically, in Canada the secret ballot is done usually within a week
 - In the US, there is a delay of a few weeks or longer between the votes and the winnings
 - It all depends on who says what is fair and unfair
- Increased management opposition due to
 - Less restrictive legal environment
 - More competitive economy (globalization?)
 - Substantial union/non-union wage differential

Substitutes to Unionization

- Government-provided (in part), reduced demand for unions
 - Improved wage protections (e.g. minimum wages, advance notice of ayoffs)
 - Greater non wage benefits (e.g. parental leave, annual vacations)
 - Private sector human resources (e.g. grievance policies, hough typically not binding)

Public Attitudes

- Attitudes Has there been a reduction of public sympathy () the When? Why? vards unions?
- a
 - People might just not like unions 0

Farber/Riddell Approach

- The demand for unions were higher in African Americans
- Worried about who gets laid off and arbitration etc....

Major Point

- Rates almost double in Canada across sex, age FT/PT, occupation, industry
- Most of the density difference not due to structural differences

Demand/Supply Decomposition

- Farber's path breaking research:
 - Q: "If an election were held with secret ballots, would you vote for or against having a union organization by currently unorganized workers

Chief Result from Riddell

 About two-thirds of the Canada-US differential in union coverage due to differences in supply of union representation

- N = Labour (units?)
 - What do we mean by labour inputs people, hours, anything with effort or efficiency? It is not clear, whatever you pay the wage for that's whatever is going into the production function.
- Other inputs suppressed here
- Short-run, Capital is fixed
- $Q = F(K_0, N)$

Short-Run Decisions

- Example
- Production technology •
 - \circ Q = F (K₀, N)
 - \circ Q = K₀ N^{1/2} {Shape of N relationship}
 - $Q = 10 N^{1/2}$ setting K₀ = 10
 - As N Changes Q changes. Concave

Profit Maximization

- Market conditions
 - Competitive, price taking {takes the numbers as a given value, the benaviour will not influence them) [Accuming perfect completion] will not influence them} [Assuming perfect completion] $\frac{11}{R} = 17 \text{ of } 42$
- Profit maximization
 - R= rental rate on car
 - w= labour cost
 - 0

$$\circ$$
 \circ , W, R, K₀ are mer

Replace Q's equation 🕨

$$\Pi = P F(K_0, N) - wN - rK_0$$

•
$$\Pi = 10 \text{ N}^{1/2} - \text{N} - 10$$

- Because we are in a competitive frame work, the extra cost of hiring another worker is the wage
- Why do we assume that MR stays positive but gradually diminishing? It depends on the space you have, or how many products you need etc.
- More output you can sell it and it turns into revenue
- We expand until MR = MC and this is one of the criteria for profit maximization

Profit Maximization in Short Run

- Shut-down rule
- Two types of costs
 - Fixed (sunk in SR)
 - You signed a contract and it is no affecting what you do
 - Variable
 - Vary with the level of output
- Operate as long as variable costs are covered
 - You can be operating at a loss
 - Any other choice of output you could have made a bigger loss
 "Negative Profit"
 Total revenue exceeds total variable costs (labour estate)
- - If the total amount you are br not cover your wage rate, then you would be better off sh
 - Does TR cover 1
 - ng any revenue u are better a tnot

Competitive Firm's Short-Run Demand for labour

- In competitive markets:
- Price taker
- Can hire labour without affecting market wage
- Marginal (and average) cost is market wage
- Hire labour until the MRP equal the W
- Short-run labour demand curve is the marginal revenue product cover for labour
- (PAGES 7-10, FIRST PART OF CHAPTER 5 IN TB)
- Figure 5.1 Short-run Demand for labour
 - Red line is the demand curve for labour

General Case

- Using previous notation
- $\Pi = PQ wN rK_0$
- $= PF'(K_0, N) w$
- = 0
- Hence short-run demand is

- \circ E₀Still has to equate so there has to be a tangency
- \circ What happens to cost if you have to stay on Q_0 ?
- Cost must then go up
- You move the Isocost line out to find a tangency point

Derivation of Labour Demand Curve in Long-Run

- \rightarrow Change the wage rate
- ightarrow Changes the slope of the Isocost line, find new tangency with appropriate isoquant
- \rightarrow Optimal output determined from product market MR=MC (Figure 5.4)
- \rightarrow Plot new wage and new quantity of labour demanded (Fig 5.3)

Demand Curve Derivation

- → Figure 5.5
 - Blue line is the original line
 - We assume the wage goes up and we end up at E₁ (Shift backwards) (long-run solution)
 - You want to decompose it to two pieces
 - \circ When the wage goes up and u move from the blue to a seeper on
 - Starting at e_0 , how would labour demonstrate for f we kept output constant but change the input mix
 - Substitution effect, F_0 to F_1
 - Moving to the new optimal scale of production, moving the red line in a parallel manor (core chect)

Verba 🔽 🌔

→ Demand schedule is downward sloping

- Firm would substitute cheaper inputs for the more expensive labour
 - Substitution Effect
- Firm would reduce its scale of operations because of the cost increase associated with the increase in wage
 - o Scale Effect

- For men, union coverage concentrated at middle of skill distribution
 - Hence equalizing effect of unions
 - Found in all three economies
- For women
 - Coverage mostly near tom pf skill distribution
 - Union wage gap larger for women than for men
 - Slight tendency to raise inequality

CLR Figure 2 (unionization rate by wage level, Canada) (2a.men; 2b. women) CLR Figure 9

CLR on Wage Dispersion: international differences

- UK, US, Canada
 - Remarkably similar trends in past 20 years
 - Both unionization rate and union wage differential have declines substantially since early 1980's
 - Related to growth of overall inequality of wages for men
 Not found for women

 Membership found in the upper tailed for wage distribution

 Freeman quote p556

Dispute in collective

- Cuidarson, Hebdon, Kyzto
- Measurement of strikes/disputes
- Economics models and determinants of strikes
- Effects of various legislative environments
- Alternative dispute resolution

Measurement Issues

- Canadian data on work stoppages (strikes, mostly)
 - Number of strikes per year (A) (frequency)
 - Number of workers involved (B)
 - Person days lost through strikes (C)
- Derived statistics ٠
 - Size =B/A = average # of workers involved per stroke
 - Duration =C/D = average days lost per worker on strike
 - Volume = C/ (potential working time)
 - C = frequency x size x duration

Long Canadian Trends: GHHP Table 12.1

- Historically, strike activity guite volatile
- Volume measure (% or working time lost)