BUEC 280 LECTURE 3

Outline

- From last week:
  - LF = E + U
  - Growing:
    - Growth of working age population
    - Growth in participation (women + youth)
- Employment (E)
  - Growing – increased aggregate labour supply and demand
  - Sectoral shifts
  - Occupational shifts
  - Nonstandard employment, changes in hours.
- Unemployment (U)

Changes in Labour Force Participation

- Working age population has increased steadily due to natural population growth and immigration
- Labour force has increased even more because labour force participation increasing too
  - Overall: about 55% in 1947, 67.5% in 2003
- But this is misleading: massive increase in participation rate of women
  - 24% in 1947, 62% in 2003
- Men: 85% in 1947, 74% in 2003
- ➔ Overall increase in LFPR due to women

Why the big changes in LFPR?

- Men: mostly decline in participation of 55-64 yr olds
  - Earlier retirement (voluntary?)
    - Structural change (lots of layoffs in 1980s/1990s in semi-skilled manufacturing; older workers had difficulty finding jobs in "new" economy)
    - Rise in real wages, home equity, & pension wealth
- Women: opportunity cost of employment falling

  (which of these are causes of increased LFPR and which are effects?
  - Social barriers falling
  - Lower fertility
  - More child care options
  - Flexible work hours
  - More education and skills
  - Women's wages rising
  - Technological substitutes for household labour (e.g., dishwashers)
  - Decline in marital stability (work experience and education are like insurance)

Youth Participation

- Another important trend: increased participation by youth (15-24)
  - 56% in late 1960's
  - 63% in mid 1970's
  - 70% in 1989 (peak)
  - 61% in 1998 (trough)
  - 67% in 2003
- Incidence of part-time work (students)
- Big rise in boom times, big drops in recessions e.g., 1975, 1982, early 90's (why?)

EMPLOYMENT

- Recall: aggregate labour demand = employment + unfilled vacancies
- Aggregate labour demand has also been growing
- How do we know?
  - Total employment has been growing, whether measured by number of workers employed or total number of hours worked a better measure of quantity than number employed)
  - At the same time, real wages have risen

The employment rate

- ERATE = (number employed) / (working age population)
- Mostly rising since 1960
- Falls sharply in recessions
- About 62.0%
- What does this number not reveal?
  - Variation in number of hours worked
  - Conditions of work
  - Compensation
  - Flexibility / scheduling
  - Uncertainty (e.g., contract vs. permanent)
  - Sectoral change

Sectoral shifts

- BIG changes in the composition of employment in recent and not-so-recent history
- Turn of the century: about 50% of LF employed in agriculture. Today: about 3%
- Where did they go?

- This experience has been shared by most industrialized countries

Reasons for sectoral changes in employment

$$\text{Labour productivity} = \frac{\text{total output}}{\text{number of workers}}$$

- Workers initially moved from agriculture to manufacturing because of productivity improvements in farming
  - We don't need as many farmers to produce same output as 100 years ago (tractors, fertilizer, pesticide, etc.)

Reasons for sectoral changes in employment – changes in demand

- Why has there been a shift in employment from manufacturing to services?
- Productivity has also increased a lot in manufacturing & other goods-producing industries (assembly lines, automation, etc.)
- Increases in productivity have led to an increases in real wages (most of us are richer than our grandparents)
- **Luxuries** are goods with an income elasticity of demand >1

- Most services are luxuries (e.g., eating in restaurants vs. cooking at home; visiting chiropractor vs. suffering)
- As our real income increased, our demand for services (and all other luxuries) increased -> bids up price & quantity of services
- This drew more people into employment in service sector: it takes lots of labour to produce services, and higher prices supported higher wages.

Reasons for sectoral changes in employment - "contracting out"

- Has increased a lot in recent decades
- e.g., Large construction firm that requires architectural services (design).
  - If architects are employees of the construction firm, then they're classified as employed in the construction sector
  - If the construction firm hires an architectural firm to do the design, the architects are classified as employed in service sector
  - Same job, different sectors ("accounting" matters)

Yet another source of sectoral change: international trade

- Goods can be easily traded across borders
- Most services can't
  - e.g., can trade computers across borders, but not haircuts
  - exception: business services (consulting, accounting, etc.)
- Canadian economy is very open
- In Canada, labour services are very expensive by international standards
- Increased trade:
  - Expensive labour in manufacturing → can't compete
  - Expensive labour in services → doesn't face (much) international competition
  - So a shift to producing services in Canada, and importing manufactured goods from elsewhere

Occupational shifts

- Given all that sectoral change, not surprising that the distribution of occupations has changed in Canada
- See Table 5.3 in text
  - Lots more managers
  - Clerical: increased then decreased
  - Way fewer people in "primary occupations" (jobs in resource extraction sector)
    - Just sectoral shift (lumberjacks who lose jobs in forestry sector don't find lumberjack jobs in some other sector)

Consequences of Occupational Shifts

- Concern: decline of manufacturing sector → decline in availability of skilled, unionized, well-paid blue-collar jobs
  - New jobs are low-skill, low-wage
- Is this true?

- Nevertheless, lots of people have paid a steep price
  - 1980's – lots of people lost longtime jobs & had to change occupation. Many (especially in ON) never returned to work.

Another big change: the growth of nonstandard employment

- 1950s & 1960s:
  - Men held long-term, high-paying jobs
  - Women worked intermittently for low wages
- **Non-standard employment:** employment that is not full-time, full-year
- Recently: a big increase in the number of people
  - working part-time or part-year
  - holding multiple jobs
  - self-employed
  - in non-permanent jobs

Nonstandard work arrangements

- Most of the growth in employment in recent decades has been nonstandard
- Is this bad?
- Is this just part of the growth of the service sector?
  - People need services day & night
  - Demand for services (e.g., retail) can be seasonal and very volatile
- Gender differences: 24% of employed women are part-time vs. 8% of men
- Underemployment: involuntary part-time employment

Why the rise of nonstandard employment?

- Demographic changes:
  - More youth & women in labour market
  - Maybe they like flexibility
- A way for firms to reduce labour costs (wages + benefits)
- More uncertainty on demand side
  - globalization again
    - More intense international competition
    - More volatile exchange rate
  - More flexibility for employers (can vary employees' hours, hire temporary help, etc.)

Changes in hours worked

- Hidden in many employment measures
- As well as the increase in part-time, part-year work, have also been big changes in "standard" work week (defined by law, collective agreement, and/or company policy)
- Beginning of 20th century: standard work week in manufacturing was about 60 hours over 6 days
- By 1950s, was 40 hours over 5 days
- Now, about:
  - 40 hours in manufacturing
  - 35 hours in service sector
  - 37 hours in economy as a whole
- Why?
- Is this good or bad?

UNEMPLOYMENT

Definitions:

- LF = U + E
- LFPR = LF / (working age population)
- ERATE = E / (working age population)
- URATE = U / LF
- Why different denominators?
  - Denominator is the "at risk population"
    - i.e., all working age people are "at risk" of being employed, but only labour market participants are "at risk" of being unemployed

What does URATE measure?

- Recall only classified as U if available to work and searching for work, but not actually working (LFS)
- Want a measure of the **underutilization of labour**
  - i.e., measure of labour willing to work at prevailing wages, but unable to find work
- This is a hard thing to measure
- Lots of reasons to think U is a noisy measure of *underutilization of labour*

Some things included/excluded from U

- Inactive job seekers
  - People who say they're looking for work, but aren't looking very hard (e.g., answered 1 ad in past month)
  - Counted as unemployed
  - Leads to **overestimate** of underutilization of labour
- Underemployed workers
  - People who are working, but would prefer to work more hours
  - Counted as employed
  - Leads to **underestimate** of underutilization of labour

Excluded from U: Discouraged Workers

- People who are available and willing to work, but have given up looking
- Counted as not in labour force
- Leads to **underestimate** of underutilization of labour
- Potentially serious:
  - e.g., suppose LF=15 million and U=1 million
    → URATE= 1/15 = 6.7%
  - Now suppose 100,000 unemployed give up working
    → URATE = .9/15 = 6%
  - Most serious in recessions
- Can we measure the discouraged worker effect?
  - LFS and Survey of Job Opportunities
  - Ask workers who are not looking: why?

Another complication: marginal workers

- Workers with a weak attachment to the labour force (frequent LF entry/exit)
  - Students – work sporadically during school year, and/or when school not in session
- When not working, not clear whether to count them as unemployed or not in labour force
- Could lead to overestimate or underestimate of underutilization of labour

So what to do?

- Statscan creates **many** measures of unemployment
  - Nine in total, only one of which is the "official unemployment rate" (R5)
  - Others include/exclude some groups
    - only unemployed 14+ weeks (R1)
    - only those heading families with children under 16 (R2)
    - excluding FT students (R3)
    - including FT members of armed forces (R4)
    - FT workers only (R6)
    - PT workers only (R9), etc.

Is U a good measure of economic hardship?

- Not so much
- Many families have multiple earners
  - if one is unemployed, hard to know if the family faces hardship or not
- Lots of income **transfer programs**
  - EI, welfare mitigate adverse consequences of unemployment
- Unemployment spells may be short or long (duration matters)

Can we get a better measure of labour underutilization?

- Try measuring the flipside instead: labour utilization
  - ERATE = E / (working age pop)
  - Numerator more reliable than U
  - For people that aren't working, don't need to distinguish between U and out of labour force (URATE denominator is LF)
  - BUT, ERATE doesn't tell us much about whether people who WANT jobs are successful at finding them

Incidence and Duration

- Two important issues:
  - Incidence – measure of **flow** of people **into** U
  - Duration – measure of **how long** unemployment spells last
- LOTS of transitions between 3 labour market states (E, U, N)
- Biggest contributor to U incidence is **job loss** (temporary or permanent layoff)
  - other contributors: quits, new entrants, re-entrants

Why duration matters

- Obviously matters for measuring economic hardship
- Also matters for understanding URATE
  - URATE ≈ (incidence) x (avg duration)

- Suppose average URATE this year is 10%
  - Could mean 10% of LF unemployed for whole year (0.1 x 1 = 0.1)
  - Could mean 80% of LF unemployed for 6.5 weeks on average (0.8 x 6.5/52 = 0.8 x 0.125 = 0.1)
  - These are very different

- 80's & 90's
  - URATE up & down with recessions, but trend is flat
  - Increase in duration, decrease in incidence

Types of Unemployment

- Perfectly competitive labour market: S, D adjust so that all workers (willing to work at equilibrium wage) are employed (draw a picture)
- So why is there ever unemployment?
- We identify four types, each with a separate cause:
  - Frictional unemployment
  - Seasonal unemployment
  - Structural unemployment
  - Cyclical unemployment

Frictional Unemployment

- Turnover is natural (people quit/get laid off, new people enter LF, etc.)
- Finding a job / filling a vacancy takes time
  - People don't usually accept their first offer
  - Matching/information problem: workers don't know where the "good" jobs are; firms don't know where the "good" workers are → takes time to create good worker-firm matches
- Usually short duration

Structural Unemployment

- We know "the" labour market is really many highly specialized markets
- "Structural changes" (changes in industrial and occupational composition, aka sectoral and occupational shifts) may imply that not all markets are in equilibrium at any one time. Example:
  - When labour demand falls in some sector (e.g., manufacturing) it takes time for displaced workers to retrain for work in another sector (e.g., info technology)

    → "excess supply" of labour in manufacturing coexisting with "excess demand" in services
  - Really, we need some "stickiness" in wages to get excess supply and really call this unemployment (draw a picture)
- A long run adjustment problem: it takes time to move from one equilibrium to another
- Duration can be very long
  - This is main distinction from frictional U

Seasonal & Cyclical Unemployment

- Seasonal U
  - Some jobs (fishing, construction, ski resorts, etc.) only available in certain seasons
  - When workers specialize in seasonal jobs, they face this kind of U
  - Is it really unemployment if these workers **choose** seasonal occupations?
- Cyclical U
  - The macroeconomy experiences cycles of growth and recession
  - In recessions, labour demand falls
  - Wages don't always adjust downward → U

Reading

- Drost and Hird Chapters 5 and 6