Summary:
Chapter 21 Segmented Labor Markets

Paul Taubman & Michael L. Wachter

https://github.com/s-saisw/readingSummary

September 11, 2019

Review

General theme of this chapter is to use SLM framework to explain wage dispersion, unemployment, and discrimination. SLM literatures posit that labor markets are segmented into high-wage and low-wage sectors. It first explains the high-wage sector (section 2), then proceeds to low-wage sector (section 3), and lastly explains why there is an immobility across sectors (section 4). Emprical findings are also presented in this chapter. Unfortunately, little evidence favoring SLM hypothesis is founded.

This chapter is very different from the standard neoclassic economic theory. As of 1986, SLM as a theory is yet incomplete. More recent works may provide a more comprehensive framework.

Keywords: wage differential, discrimination, sectoral immobility, labor union

1 Overview: What is SLM?

- The neoclassic model is viewed as not providing adequate explanation of wage dispersion, incidence of unemployment, and the causes of discrimination. SLM literatures answer these questions in the following manners.
  - Labor markets are segmented into high-wage and low-wage sectors.
  - Wage differential creates unemployment.
  - Being employed in the low-wage sector scars workers and reduces the probability of getting a job in the high-wage sector ⇒ Workers are trapped.
- In neoclassic models, preference and institution are often taken as given (or in other words, exogenous). SLM postulates that tastes and institutions may develop endogenously. (Is this point developed later in the chapter?)
- Whether there is a distinctive SLM model that can be interpreted as an alternative paradigm to the neoclassic model is not assessed in this chapter.
- Central hypothesis of the SLM approach is that labor market is segmented in the following manner.
  1. Primary sector : high wage, hiring from internal labor market, jobs in this sector are classified as "good jobs"

2. Secondary sector : low wage, hiring from external (spot) labor market, jobs here are classified as "bad jobs"

- Important research questions in SLM literature are such as
  - Why are labor markets segmented? Why are the wage differentials not attributed to skill differences?
  - Why is mobility between sectors limited?
  - What are the causes of segmentation?
- SLM literature answer the above question using the following themes
  - Internal labor market does not maximize profit. Instead they have some institutional rules (e.g. industrial relation).
  - Labor unions play a positive role in the primary sector.
  - Each sector has different wage mechanism.
  - Being employed in the secondary sector creates negative feedback on the worker's employment opportunity.
- (As of 1986) the SLM model as a theory is yet incomplete and often draws from historical and descriptive analysis.

2 Internal labor market (Primary sector)

- Internal labor market refers to institutions that govern the allocation and pricing of labor within the firm. It is often associated with primary sector firms.
- Internal labor markets contribute to labor market segmentation. How? Different school of thoughts have attempted to answer.
  - SLM: Internal labor markets do not maximize profit. Some institutional rules make their pay higher than the secondary sector.
  - Marxian: Internal labor markets de-skill workforce. (?)
  - Neoclassic: Internal labor markets offer on-the-job training specific to the industry.
- Since SLM literature considers jobs in the primary sector "better" jobs, it raises questions of *allocative efficiency*, i.e. whether there are too few jobs in the primary sector? SLM models suggest the following interpretation.
  - The size of the primary sector is determined from capital stock level.
  - Wage does NOT determine the size of the primary sector.
  - Wage differential between sectors determines the size of unemployment. (More workers queue for jobs in the primary sector if the wage in the primary sector is much higher.)
- *Labor unions* play a significant role in SLM literatures. It boosts the wage in the primary sector. As wage does not determine the size of the sector, the existence of labor union does not shrink the size of the sector.

3 Secondary sector

- Each sector has different wage determination mechanisms. There is a *demarcation line* that separates sectors from one another. There is a number of studies on finding this line, but they are rather "sterile".
- *Human capital investment is irrelevant in the secondary sector.* Consequently, secondary sector exhibits a flat profile of earnings across age groups, creating wage differentials between primary and secondary sectors. Empirical studies exploring this question have attempted to estimate the impact of experience and education on wage.
  - Because it is difficult to determine where the demarcation line is, one natural solution is to use occupational lines instead. Nevertheless, employing occupational lines creates new methodological problems.
    * Some occupations have flatter wage profiles than others.
    * When estimate the impact of human capital on wage using subgroup analysis, for each subgroup, human capital may not be random and might be correlated with error term. This is called "Truncation bias".
  - Taubmann & Wales (1974), Sewell & Hauser (1975): When estimate the impact of experience on wage profile of a given occupation, the estimation may be subjected to endogeneity bias (i.e. experience is correlated with error term). If workers are mobile across jobs, more able workers leave poor jobs after gaining some experience and least able workers drop out of labor force. Therefore, comparing workers with different experience in the same occupation may be equivalent comparing less-experienced (but able) workers to more-experienced (but unable) workers. This also results in flat wage profile across age groups.
  - McNabb & Psacharopoulos (1981) estimate earning functions separately for high and low status occupations. This status is determined from Goldthorpe and Hope scale. Because the sample is split into subgroups, education is positively(negatively) correlated with error term in the high(low) status group.
- *Unemployment or employment in the secondary sector increase the probability of being unemployed or employed in the secondary sector.* In the beginning, workers in both sectors have similar human capital, but they are eventually molded to their jobs.

4 Models of earnings mobility over the life cycle

4.1 Models

- The permanent income model
  - Income at any period Y_t is comprised of permanent income Y_p and transitory income Y_{vt}, i.e. $Y_t = Y_p + Y_{vt}$.
  - Workers are divided into two groups:
    1. Workers with low Y_p
    2. Workers with high Y_p
  - Segmentation is when Y_{vt} has expected value equal to zero. Mobility occurs if Y_{vt} is large.

  - To estimate this model, we need to use IV correlated with Y_p but uncorrelated with Y_{vt}. Then we can look at the sample mean of the residuals and see if it is close to 0.

- The Markov model
  - $Y_t = Y_{t-1} + w_t$
  - If the R^2 of this estimating equation is large, it means labor markets are segmented.
  - Hart (1976) concludes that Markov model is more appropriate than the permanent income model.

- The human capital model
  - Workers pay some cost to acquire human capital i.e. $Y_{it} = Y_{it-1} - I_t + rK_t$, where I_t is investment; K_t accumulated investment; r rate of return on prior training investment.
  - Some workers may choose to smooth income over lifetime and not invest in human capital at all, resulting in flat income profile.

- The negative feedback model
  - No mathematical expression is given here.
  - Negative feedback can be confused with inertia.

4.2 Empirical results

(Some studies are omitted from this summary.)

- Schiller (1977) analyzes the movement of workers across the earnings distribution of their own age cohort. Immobility is founded.

- Chamberlain (1982) and Lillard (1983) estimate the Markov model with individual and time fixed effects and allow error term to be auto-correlated. Chamberlain (1982) finds that there is no evidence for SLM hypothesis but investment in on-the-job training. Lillard (1983) finds evidence for SLM but there might be some sample selection bias.

- Behrman and Taubmann (1984) examine social mobility (the impact of parent's wealth on a child) find that R^2 is small.

- Another important element of SLM is that human capital investment does not matter. This implies income is largely determined by luck. Behrman, Hrubec, Taubman and Wales (1980) use data on identical twins and find that the opposite occurs.