

Non-technical summary of the project

"Labour Market Segmentation in Switzerland"

PD Dr. Alfonso Sousa-Poza
University of St. Gallen¹

Background of project

In traditional economic thought – and in most economic text books – the labour market is assumed to be one single entity. Labour market segmentation (LMS) theory assumes that the labour market is not a homogeneous entity, but, instead, is composed of numerous segments. The underlying mechanisms and structures at work with regard to payment, promotion, job security, etc. differ fundamentally among segments. In its original form, LMS distinguished two segments: a secondary and a primary sector. This is the well-known dual labour market theory. The secondary sector is characterised by low-wage jobs, no returns to human capital, and a high degree of job insecurity. The primary sector, on the other hand, is characterised by high-wage jobs, returns to human capital, large firms, and job security. Furthermore, mobility between the sectors is severely restricted, and jobs in the primary sector are rationed. The more recent LMS literature has extended this original version in order to take more than two segments into account.

In recent years, an increased interest in research on LMS has taken place. One of the reasons for this resurgence is that labour-market conditions deteriorated in the 1990s; poverty, welfare, and unemployment thus re-entered public debate. This is especially the case for

¹ Address: FAA-HSG, Guisanstrasse 92, 9010 St. Gallen; tel.: 071 224 28 02;
e-mail: alfonso.sousa-poza@unisg.ch.

Switzerland, where particularly unemployment and poverty increased in the 1990s. LMS theory postulates that these ills are, to a certain extent, a result of segmented labour markets.

Is the Swiss labour market segmented?

Several empirical methods have been developed in the literature in order to establish whether a labour market is segmented or not. Ultimately, these methods aim at determining whether relatively isolated groups of individuals can be identified that also have different labour-market characteristics. Nevertheless, deciding on how to define segments is a main concern of the segmentation literature and, although numerous approaches exist, there is little consensus on which method is the most appropriate.²

Is the Swiss labour market segmented? In order to try and answer this question, three of the most common methodological approaches encountered in the segmentation literature were used³ and implemented with data from the Swiss Labour Force Survey. The somewhat unsatisfactory (although by no means surprising) conclusion is that revealing the existence of segmentation depends very much on the choice of methodology, i.e., on the understanding and definition of segmentation. Nevertheless, this project shows that, with the common methods implemented here, the existence of a relatively large and well-defined typical secondary segment in the *male* sample does not appear to exist. It is interesting to note that, in the *female* sample, the evidence is not as clear cut, i.e., certain methods do reveal the existence of an albeit small female secondary segment. Considering the fact that women are much more likely than men to perform low-skill-requirement tasks, it should also be more likely to encounter women in a typical secondary segment.

² The earliest approaches defined segments according to individual attributes or human-capital characteristics. This approach, due to the so-called truncation bias which it introduces, has been criticised. The truncation bias originates from the circular argumentation that arises from the fact that segments are divided on the basis of high or low income (or characteristics that determine high or low income) and then used to estimate wage functions. Better and newer methods define segments with detailed occupation and/or industry information, or with the aid of clustering techniques. Such *ex ante* allocations of individuals to segments are, despite their drawbacks, by far the most popular approaches in the segmentation literature. The main criticism, however, of these *ex ante* definitions is that, if a worker's choice of occupation or industry is not independent of unmeasured characteristics, then there is a danger of sample selection bias. Dickens and Lang (Dickens, W.T./Lang, K. (1985), "A Test of Dual Labour Market Theory", *American Economic Review*, 75:792-805), therefore propose an econometric technique that endogenises segment choice.

³ An analysis of wage functions applied to *ex ante* defined segments according to industry classifications, a hierarchical cluster analysis, and a switching model with unknown regime were implemented.

*Is job instability on the rise?*⁴

Perhaps the most important characteristic of a typical secondary segments is job instability and insecurity.⁵ Thus, it is important to know the extent, determinants, and development of job stability and job security. In this project, data from different sources are used in order to analyse this topic. The analysis of job stability is based on data from the Swiss Labour Force Survey, and job stability is proxied with one-year exit probabilities, average elapsed job tenure, and on-the-job search inclinations. One of the attractive characteristics of the Swiss Labour Force Survey is that it contains rich data on the motives for a fluctuation and for on-the-job search. This information is important as it allows a detailed analysis of voluntary and involuntary movements. Furthermore, the fact that the Swiss Labour Force Survey has been conducted since 1991 allows for an analysis of the dynamics of job stability. Data from the 1997 International Social Survey Programme were used to analyse job security. Although only a cross-sectional analysis was possible with this data set, the fact that over 20 countries participated in this survey allowed for a comparison among countries. Such a comparison is interesting as it can reveal the extent to which institutional aspects such as employment protection legislation influence job security.

If one takes a look at the whole of the past decade, then job instability (as documented by this study) has not increased. One-year total job separations have remained remarkably constant in the 1990s and those few significant changes that are observed can most probably be attributed to changes in the business cycle. When total fluctuations are broken down into job-to-job, job-to-unemployment, and job-to-nonemployment turnovers, then certain changes can be registered. Most notably, job-to-job mobility has significantly increased in the second half of the 1990s. Job-to-unemployment turnovers were significantly higher in the mid 1990s, and significantly lower thereafter. Job-to-nonemployment remained constant. These changes reflect the different stages of the business cycle. As such, there is no evidence that the increased job-to-job mobility in recent years constitutes a new *trend* toward higher instability.

⁴ Some aspects of this study were reviewed in *Neue Zürcher Zeitung*, "Das Ende des Arbeitsplatzes auf Lebenszeit: Analyse der Schweizer Stellenwechsler" (7. Dezember 2002).

⁵ Note that in the literature "job stability" refers to observed (objective) stability of a job, which is usually measured by the probability of a fluctuation. "Job security" refers to the (subjective) perceived stability of a job. These two measures need not always go hand in hand.

In the context of this study, knowing whether a quit is voluntary or not is important. The results depicting the motives of a job change indicate that involuntary quits and exits due to temporary employment have significantly *decreased* in recent years. From this perspective, the (most likely cyclical) increase in job-to-job mobility does not seem particularly worrisome. This point is reinforced by the observed increase in elapsed tenure, especially in the female sample.

It would seem plausible to assume that higher job instability should, at least to some extent, be reflected in higher levels of on-the-job search. The results provided in this study show quite clearly that on-the-job search rates have remained very constant in the past decade. The motives for looking for a new job are also informative: job searching due to job insecurity or unhappiness with one's current job has significantly declined relative to the more "voluntary" forms of on-the-job search in recent years.

As pointed out by the OECD⁶, perceived job insecurity depends on several factors, of which job stability is only one. Furthermore, perceived job insecurity may also have a positive effect on job stability if job insecurity happens to be correlated with perceived labour-market perspectives and thus quit behaviour. The analysis of the data of the 1997 International Social Survey Programme data set shows that about 60% of all Swiss workers in 1997 considered their job as secure. In a cross-country analysis covering 23 countries, 5 countries had higher and 10 countries had lower levels of job security. In 7 countries no significant differences could be observed. Thus, despite the fact that the year covered by this survey coincides with the peak of the worst Swiss recession since the 1920s, the average level of job security remained comparatively high. These results were also replicated with data from the first two waves of the Swiss Household Panel. Thus, job instability does not appear to be on the rise and job insecurity is not – in an international perspective – high. This, however, does not rule out the fact that job instability is relatively high for certain socio-economic groups and in certain industries. Thus, the results show that job instability is quite pronounced in the construction, retail/catering, and, in recent years, in the IT industries. Furthermore, relatively high levels of job instability can be observed among young individuals as well as among individuals with a low education.⁷

⁶ OECD (1997), "Is Job Insecurity on the Increase in OECD Countries", *Employment Outlook*, Paris.

⁷ It is interesting to note that, if at all, only among young individuals can a trend towards higher job instability be observed. A similar result has been observed in the United States (see Monks, J./Pizer, S., "Trends in Voluntary and Involuntary Job Turnover", *Industrial Relations*, 37:440-459, 1998).

*Are women-dominated labour markets worse off?*⁸

It is well documented that labour markets are segregated according to gender, and the segregation is a special case of segmentation (i.e., segmentation based on gender). One aim of this project is to analyse the relationship between segmentation and the gender wage differential empirically. The general underlying hypothesis is that jobs in the primary segment are primarily encountered in so-called internal labour markets and that this may influence the magnitude of the "unexplained" (and potentially discriminatory) gender wage differential. More specifically, this project tests whether or not the "discriminatory" component of the gender wage differential (i.e., after controlling for differences in human-capital endowments) is larger in the primary than in the secondary segment. Naturally, the mere existence of internal labour markets need not necessarily imply a discriminatory practice. However, the fact that customary law and rules based largely upon past practice or precedent are considered important factors responsible for the emergence of an internal labour market structure, inevitably facilitates discriminatory practices within the primary segment. This hypothesis is tested with data from the Swiss Wage Structure Survey. An industry-level analysis confirms the above-mentioned relationship between labour-market segmentation and the gender wage gap: unexplained wage differences are much smaller in the secondary than in the primary segment.

A further aim of this project is to investigate whether or not segregation is the only cause for (unexplained) wage differentials. This issue is important and has not been extensively analysed. A conceivable argument is that the wage gap is primarily attributable to segregation, i.e., men and women simply work in different labour markets which have their own supply and demand constellations. This project therefore analyses the effect of segregation on the wage differential by taking a look at wages within a specific industry, within a certain segment, and for different occupations, i.e., by analysing a non-segregated sample of individuals. For three selected occupations within the primary segment of the banking and insurance industry (personnel-type occupations (relatively gender neutral), secretarial-type occupations (predominantly female), consulting-type occupations (predominantly male)) it is

⁸ Newspaper reviews of parts of this study include: *St. Gallen Tagblatt*, "Der grosse Unterschied" (5. Februar 2003), *St. Galler Tagblatt*, "HSG-Studie zu Lohnungleichheit in Gastgewerbe, Gesundheitswesen, Banken- und Versicherungsbranche" (18. Februar 2002), and *Cash*, "Banken diskriminieren am heftigsten" (2. August 2002).

shown that, even for such homogenous groups of employees, substantial unexplained wage differentials exist. Thus, at least in the banking industry, segregation cannot account for a large part of the gender wage gap. Using data from the Swiss Labour Force Survey it is also shown that occupational segregation has not changed very much in the past decade. Moreover, occupational segregation does not appear to influence the wage gap, i.e., one cannot assume that future changes in occupational segregation will reduce the wage gap.

Switzerland is one of the few industrialised countries in which the wage gap is not only comparatively large but changes in this gap have for all practical purposes not taken place. In a further analysis of the gender wage gap, data from the first ten waves of the Swiss Labour Force Survey are used in order to see whether or not a convergence in unexplained wage differences can be observed. The analysis shows that, although a negative trend in the wage gap can be observed, this trend is very flat. More specifically, if the wage gap continues to decline at the current rate, then it will take another 68 years before the wage gap is eliminated. The results also show that the unexplained part of the wage gap, i.e., that part which cannot be attributed to differences in human-capital and other endowments, has also remained very constant in the past years.

One of the most debated issues in recent years in the political arena is the fact that coverage in the second pillar is income-dependent, i.e., low-income workers and especially part-time workers are often not covered in the second pillar. This is often deemed a severe limitation of the second pillar. Needless to say, coverage in the social security system is gender-specific and women are often worse off than men. With the aid of the 2002 Swiss Labour Force Survey, which collected unique data on coverage in the second and third pillars, and data from other waves of the Swiss Labour Force Survey, an analysis was undertaken which aimed at establishing the determinants and extent of coverage in the second and third pillars. The results revealed that coverage in the second pillar (as estimated by the number of individuals earning more than the co-ordination deduction) has remained remarkably constant in the past decade, i.e., on average at about 77% of employed individuals aged below 60. Whereas men's coverage is nearly universal (close to 90%), about one-third of all employed women younger than 60 earn less than the co-ordination deduction. There is also no indication that this gender gap is closing. Women's risk of no coverage in the second pillar is also strongly and negatively influenced by childcare responsibilities and marriage. Furthermore, the potential coverage in the second pillar differs among industries even after controlling for several socio-

economic and demographic differences. The probability of earning less than the co-ordination deduction is particularly pronounced in the "hotels, restaurants, and catering" industry. About 1.5 million individuals aged below 60 have a policy in the third pillar, which corresponds to about 50% of all employed individuals in this age group. Coverage among men is about 10 percentage points higher than among women. Household income as well as certain socio-demographic factors have an impact on coverage.

*Is there a labour-market segment for older individuals?*⁹

A second demographic group (i.e., besides women) that has received substantial attention in public discourse relating to labour-market opportunities is that of older individuals. Furthermore, this is a group that is very strongly linked to certain social security systems, most notably the pension system. The aim of this study was to analyse the supply of labour of older individuals, the training they receive, and whether the institutional framework in any way hinders their employment. The results show that the labour supply of older workers is quite pronounced (especially in an international comparison). We observe that, although overemployment is more common than underemployment, overemployment diminishes with age. Furthermore, labour supply of workers who exceed the retirement age is relatively high: they compose about 4% of the labour force and an additional 3% would be willing to work. One important observation in our analysis is that the desire to work after retirement does not depend on the income of an individual, i.e., employment due to financial necessity can, in general, be ruled out.

Training plays an essential role in any discussion on the employability of older workers. The results show that the probability that older workers receive training is comparable to that of younger workers. Only those older workers which are close to the official retirement age (i.e., between the ages of 60 and 65) are much less likely to receive any training. Thus, the trainability of workers does not appear to diminish between the ages of 20 and 60. The strong decline in training after the age of 60 is a result of the short amortisation period of such investments in human capital. Although participation in training courses for occupational

⁹ Newspaper reviews of some aspects of this study include: *HandelsZeitung*, "Weiterbildung: Herausforderungen für kleineren Unternehmen" (18. Juni 2003); *Schweizer Arbeitgeber*, "Zukünftige Herausforderung für die Arbeitgeber und die Rolle der Weiterbildung" (20. März 2003).

reasons is dependent on age, the probability that firms pay for this training is not. Training is strongly related to the level of education, i.e., workers with a high education are more likely to participate in training courses than workers with a low education. Furthermore, workers with a low education are much less willing to work after retirement. These results imply that the employability of older and poorly educated workers is (from a supply and from a demand perspective) relatively low. It can also be observed that a positive relationship between course training and wage level, yet no relationship between course training and wage growth exists. This result applies to all age groups. It therefore cannot be ruled out that a significant number of such courses do not directly influence productivity. Finally, an analysis of the institutional setting in Switzerland revealed that in general (and especially in comparison to other European countries) the Swiss social security systems do not provide strong incentives for early retirement, which is an important reason for the high employment rate of older workers.