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JOB UPGRADING IN SWEDEN: THE LABOUR MARKET POLICIES MODEL AND THE JOB SECURITY COUNCILS' RE-EMPLOYMENT SUPPORT

by Elisa Staffa

Many labour economists claim that the developed countries' employment structures have been polarising, during the last years, due to several change forces, like technological change and globalisation. In this paper, the attention is focused on Sweden: it seems to have experienced not a process of polarisation but upgrading in the employment structure. This could be due to several elements of the institutional context, such as the labour market policies model. Through it, the Swedish economy welcomes change, and guarantees labour flexibility. Job Security Councils (JSCs) are institutions born from the social partners, and support laid-off workers in the re-employment process. We analysed individual-level data on assistance provided in a re-employment process to a sample of blue-collar workers that belong to the JSC Trygghetsfonden (TSL). All the workers received coaching support, some of them also joined training courses ("treatment"). Using IPWRA models, a differential treatment-effect analysis is carried out to empirically investigate whether the action of the labour market institution could contribute, albeit limitedly, to the upgrading trend of the employment structure. The results in terms of re-employment probability and re-employment quality (upgrading in terms of wage and job qualification) are very good, nevertheless they cannot be attributed to the "treatment" training, because it is not significant for the outcomes.

Keywords: job polarisation and upgrading, Swedish labour market institutions, active labour market policies, re-employment support, Job Security Councils, differential treatment-effect analysis.

Molti economisti sostengono che, negli ultimi anni, le strutture occupazionali dei Paesi sviluppati mostrano una tendenza alla polarizzazione, causata da fattori quali innovazione tecnologica e globalizzazione. La Svezia, su cui si concentra il presente contributo, non sembra tuttavia mostrare un andamento di polarizzazione, ma di *upgrading* nella struttura occupazionale. Vari elementi istituzionali potrebbero giustificare tale fenomeno, in particolare il modello delle politiche del lavoro. Grazie a questo, l'economia svedese gestisce i cambiamenti, garantendo flessibilità nel mercato del lavoro. I Job Security Councils (JSC) sono istituzioni, nate dalle parti sociali, che assistono lavoratori licenziati nel processo di rioccupazione. È stato analizzato un dataset relativo a un campione di colletti blu licenziati e supportati dal JSC Trygghetsfonden (TSL). Tutti i lavoratori seguono attività di coaching, inoltre alcuni partecipano a corsi di formazione ("trattamento"). Attraverso modelli IPWRA, si è effettuata un'analisi di trattamento differenziale per indagare empiricamente se l'azione di questa particolare istituzione possa contribuire, seppur limitatamente, al processo di *upgrading* della struttura occupazionale svedese. I risultati del JSC in termini di probabilità di reimpiego e qualità del reimpiego (*upgrading* in termini di salario e qualifica lavorativa) sono molto buoni, tuttavia non possono essere attribuiti al "trattamento" formazione, poiché l'effetto differenziale non è significativo.

Parole chiave: polarizzazione e *upgrading* del lavoro, istituzioni del mercato del lavoro svedese, politiche attive, sostegno alla rioccupazione, Job Security Councils, analisi di trattamento differenziale.

Elisa Staffa, master's degree in Economics Sapienza University of Rome, Faculty of Economics, Via del Castro Laurenziano 9, 00161 Rome; elisa.staffa22@gmail.com.

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1. Introduction

Over the past 30 years, an intense debate on the evolution of developed economies' employment structures has involved first the USA, then the European countries. Countries' employment and wage structures are influenced by changes and events that occur in the economy, as well as by the labour market structure. In recent years, there has been a decrease in middle-qualified/paying jobs, and an increase in highly qualified/paying jobs and low-qualified/paying jobs. This phenomenon of "hollowing out" has been defined "job polarisation". The driving forces behind this are from both the labour demand and the labour supply side. The attention is paid more to the demand side.

The first factor is technological change, and is identified as the introduction of information and communication technologies (ICT) within production processes. The economic theory defined it "skill-biased" technological change, because it is complementary to highly skilled workers, and instead substitutes for low-skilled workers (Violante, 2008). Subsequently, it has been classified as "routine-biased" because it can be a substitute for occupations that involve routine tasks, which can be found in the middle range of the employment distribution, but it cannot be a substitute for professions with non-routine tasks, which can be found both in the high tail and in the low tail of the distribution. This is the so-called "routinization hypothesis" (Autor *et al.*, 2003), and because of it the employment structure can be polarised.

Another possible explanation for polarisation is linked to the influence of globalisation and to the increase in international trade; the process known as "offshore outsourcing" is the transfer of some phases of production processes to developing countries, mainly the production phases of intermediate inputs. A hollowing out of middle-qualified jobs can derive from it (Goos *et al.*, 2010).

Thirdly, a country's labour market institutional context is a change-driver factor, and influences the employment and wage structure. Institutions could play a crucial role in trying to explain the heterogeneity of employment structures' trends among different countries.

In the USA, the employment and the wage structures have been strongly polarising, mainly due to labour demand factors (Autor *et al.*, 2006). As for Europe, authors like Goos, Manning, and Salomons (2010 and 2014) have analysed the employment structure dynamics of some European countries during several years, using data from the European Union Labour Force Survey (EU LFS), and they have found that the process of polarisation is pervasive among the different countries: the share of the highest-paid/qualified occupations has increased, the share of middle-paid/qualified occupations has decreased, and the share of less paid/qualified jobs has tended to increase (with some exceptions). In opposite to this, since 2008, the European Foundation for the Improvement of Living and Working Conditions (Eurofound) has been publishing reports about structural changes in European labour markets and about employment structures' dynamics of European countries. These reports show that each country has a diversified employment structure dynamic, not generalisable to a single pervasive polarising trend: some countries face a process of polarisation, but other countries have an upgrading employment structure trend, while other ones face a process of downgrading.

Change-driver factors as technological innovation and globalisation do not produce the same effects in all European countries, because the economic contexts and the institutional features are different. As Eurofound (2013, p. 26) claims:

Such institutional differences could explain why, despite facing similar underlying processes of technical change and globalisation, Nordic countries showed an unambiguously upgrading process of structural change, continental European countries suffered job polarisation and southern European economies underwent a centripetal process that is the very opposite to the idea of polarisation.

In this paper, we focus the attention on Sweden, which seems to have experienced not polarisation but upgrading in the employment structure. The institutional model is a key element for the labour market evolution in the face of technological change and globalisation. The most recent and original development of labour market institutions are the Job Security Councils (JSCs), which take care of the re-employment process of laid-off employees.

The aim of this paper is to empirically investigate whether the action of these peculiar Swedish institutions could contribute, albeit in a limited way, to the upgrading trend of the Swedish employment structure. To do this, we will study one JSC, and outline an econometric treatment-effect analysis based on original first-hand data on assistance provided in the re-employment process to a sample of laid-off workers. Empirical findings in terms of re-employment probability and re-employment quality (probability of having an upgrading in terms of wage and job qualification) are very good: the JSC helps people find better-paid and better-qualified jobs, so the JSC's action contributes to the upgrading trend. In the current historical moment, because of the coronavirus pandemic, JSCs have to handle large increases in the number of dismissals: they are facing a test in which their effectiveness could be hopefully further appreciated.

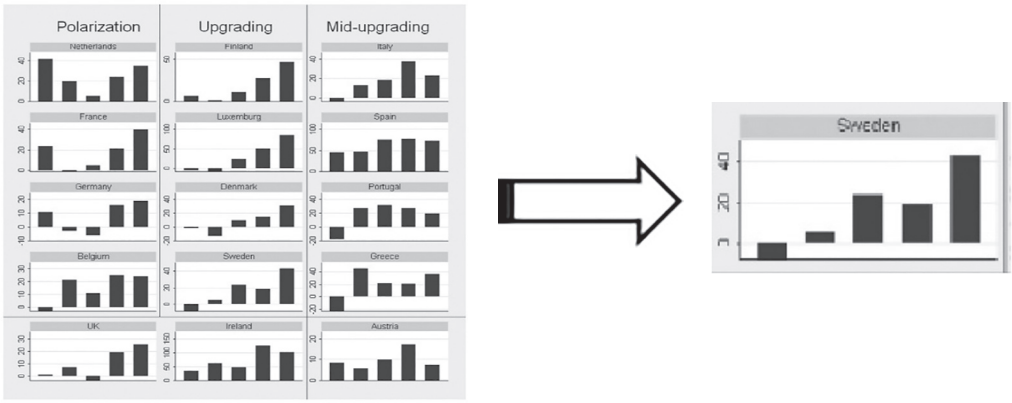
The paper is organised as follows. Section 2 shows supportive evidence for the upgrading trend of the Swedish employment structure in recent years. Section 3 provides an overview on labour market institutions, including JSCs. In Section 4, a case study based on first-hand data from a JSC is presented, and a differential treatment analysis is outlined. Section 5 provides conclusions.

2. The Swedish case: job upgrading

The attention is focused on a Nordic country, Sweden, which seems to have experienced not a process of polarisation but a process of upgrading in the employment structure. Upgrading implies no growth or little growth in the bottom two quintiles of the employment structure, growth in the middle quintile, and a larger expansion of the upper quintiles.

Macias (2012) analyses the nature of employment change between 1995 and 2007 in 15 European countries, including Sweden, using data from the EU LFS. Occupations are ranked by the hourly median wage in each country, and are classified in quintiles: then, the employment growth for the five quintiles is calculated over the years. Sweden (as well as two other Nordic countries, Denmark and Finland) experienced a process of unambiguous upgrading in the employment structure.

Figure 1. Relative change in employment by wage quintiles, 1995-2007



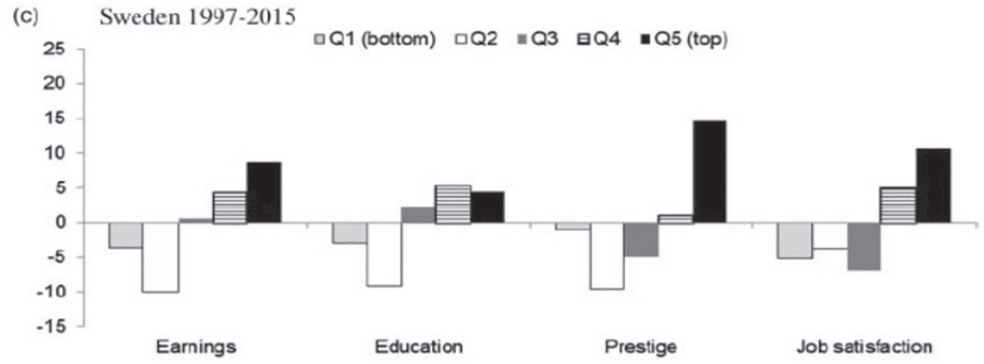
Source: Fernández-Macías (2012, p. 171).

Oesch and Piccitto (2019) support a "polarisation myth" in European countries: although the idea of polarising labour market has become widely accepted by economists, they show that the polarisation thesis does not hold empirically. They analyse data about the occupational change in Sweden, Germany, Spain, and the United Kingdom between 1997 and 2015, using four indicators of job quality: earnings, education, prestige, and job satisfaction.[1] Occupations are ordered on the basis of the four indicators, and are ranked into quintiles; then, the employment change is calculated. The employment structure does not have a polarising but an upgrading trend in every country. The next graph shows the Swedish trend.

Berglund, Dølvik, Rasmussen, and Røed (2019) analyse changes in the occupational structure in three Nordic countries, Denmark, Norway and Sweden, during the period 2000-2015, using data from national labour force surveys (LFSs) and national wage data. They rank occupations by the hourly median wage of the latest available year in the time series in each country, so that they can divide the workforce into wage quintiles, and study how the number of employed persons has changed in the different quintiles. The Swedish employment structure features an upgrading trend.

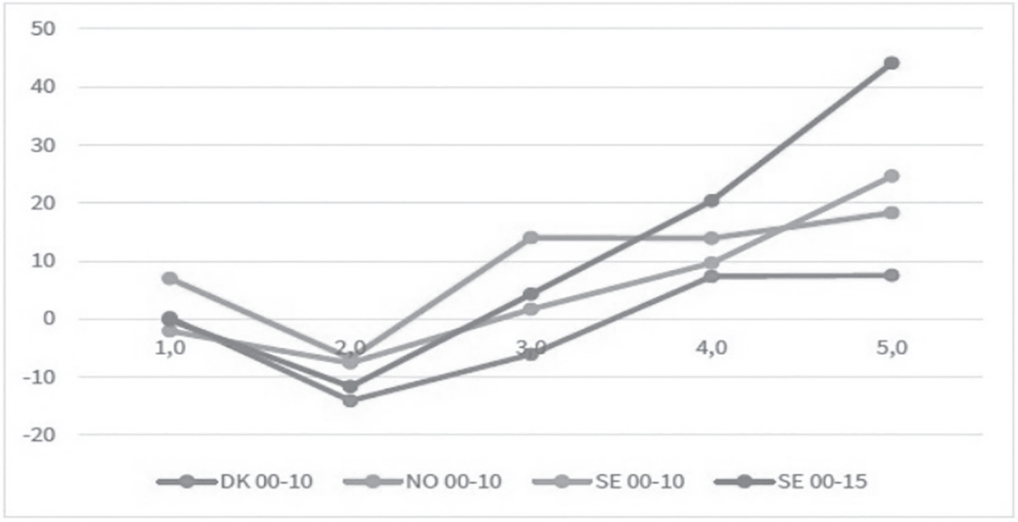
[1] Data on occupations and education are drawn from EU LFS. Data on earnings are drawn from EU-SILC 2002; data on job satisfaction are drawn from the 2006, 2010, and 2012 European Social Survey.

Figure 2. Employment change by four indicators



Source: Oesch and Piscitto (2019, p. 454).

Figure 3. Percent change in occupational wage quintiles, 2000-2010 and 2000-2015



Source: Berglund *et al.* (2019, p. 15).

Technological change, globalisation, and institutions are change-driver factors that can interact and produce different outcomes for the employment structure of a country. Although Sweden is among the first European countries for investments in ICT, and is highly

technologically developed (despite the fact that it is an open small economy that relies on exports, and is highly exposed to international trade and globalisation), it is characterised by job upgrading and not by job polarisation. How could the empirical findings reconcile with the theoretical background that predicts job polarisation? Other factors must be considered. Macias (2012) claims that job polarisation in continental Europe could be related to the process of deregulation of employment relationships, declining trade union power, and their traditional policy of wage compression. However, Nordic countries have the strongest unions and the most compressed wage structures in Europe: they did not experience the same deregulation process as continental Europe.

It is important to understand how change is managed inside the economy, whether labour market institutions contribute to adapting and accepting changes, and how they deal with taking care of forced job mobility within the employment structure. We will analyse some features of the labour market institutional background and its functioning, and then we will see how the Swedish model for the economy makes the country able to deal with, and adapt to structural changes.

3. The Swedish context: the labour market institutions

3.1. Industrial relations and collective agreements

Sweden has historically always been a highly unionised country. Data about trade union density say it was 67% in 2015, and 81% in 1990, but then a trend of declining membership occurred. Nevertheless, Sweden is among the countries with the strongest unions in Europe.[2]

There is a wide number of trade unions, grouped into three major confederations. The system is based on the "industrial principle": trade unions are organised according to the economic sector in which employees work. The trade union organisations of employees are the Swedish Trade Union Confederation (LO) (with 1,470,000 members among blue-collar workers),[3] the Swedish Confederation of Professional Employees (with about 1,300,000 white-collar workers),[4] and the Swedish Confederation of Professional Associations (with 650,000 members, among civil servants and professional employees).[5] On the employers' side, there are three main organisations: the Confederation of Swedish Enterprise (for the private sector), the Swedish Association of Local Authorities and Regions (for the public sector), and the Swedish Agency for Government Employers.

The Swedish intense social dialogue is bipartite, not tripartite. In 1938, the historic Saltsjöbaden agreement was signed by LO and the Swedish Employers' Confederation (the previous Confederation of Swedish Enterprise). It has become a symbol of the compromise between labour and capital: employers and employees organise and regulate conditions in the labour market, so that the government has a limited regulating role. An institutionalised form of collaboration and cooperation between the two social partners has emerged (Bengtsson, 2013).

[2] Data were extracted in October 2019 from OECD.Stat.

[3] Further information is available at: www.lo.se/english/this_is_lo (last consultation on 7 October 2019).

[4] Further information is available at: www.tco.se/om-tco/This-is-TCO/The-TCO-Unions (last consultation on 7 October 2019).

[5] Further information is available at: www.saco.se/en/english/about-saco (last consultation on 7 October 2019).

The key wage bargaining level is the industry level, although there is still some coordination at national level, and possibilities for variation at company level. In 2017, there were 671 collective agreements in place, covering 90% of the labour force.

3.2. Labour law

The Swedish labour market is regulated by statutory laws and collective agreements. Labour law is limited if compared with labour legislation in other EU Member States, and is optional and semi-mandatory for the largest part: most provisions of labour market legislation can be amended – wholly or partly – by collective agreements if agreements guarantee employees a better position than the legislative provisions. Labour law settles boundaries, but it is flexible. The principle of self-regulation through collective agreements is a cornerstone of Sweden's labour market: the government is not welcomed in the negotiations.

In Swedish legislation, there is a distinction between collective redundancy and dismissals for reasons related to the individual employee: in case of redundancy, the employer could need to restructure the company to keep productivity and competitiveness high (Bergström, 2014). Detailed rules on the priority between the employees in situations of redundancy exist. In case of shortage of work, the employer must observe the seniority rule: the first employee to dismiss is the last employed one ("last-in-first-out", LIFO). It is a semi-compulsory rule, because it can be changed by a collective agreement.

3.3. Managing restructuring in the economy

It is through the high degree of social dialogue that the Swedish small open economy has been able to adapt to, and accept structural change: restructuring is considered necessary to maintain the competitiveness of exporting Swedish companies, and the high levels of labour productivity, and it is up to the social partners to deal with this. Restructuring policies target workers that are employed in firms, and risk being made redundant, or aim to minimise the impact of redundancy on employees made redundant. They differ from general labour market policies, whose goal is to reduce unemployment of specific vulnerable groups and to help long-term unemployed people.

Several restructuring mechanisms exist. Sweden embraces a qualitative adjustment comprehending measures that facilitate labour reallocation, aimed at maintaining or increasing workers' productivity and at contributing to internal and external job-to-job transition (Bergström, 2018). Restructuring implies high labour mobility through job destructions: layoffs and re-employments are daily events in the labour market. Change is not rare and extraordinary, but a praxis and an opportunity, and the Swedish model makes it sustainable.

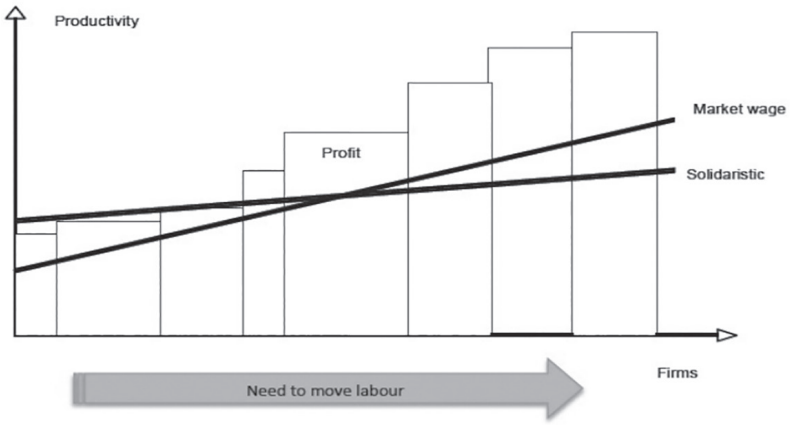
3.4. *The Swedish model: the security of wings*

When we talk about "the Swedish model" (so-called "Rehn-Meidner model"), we refer to an economic policy model developed in 1951 by two economists at the Research Department of LO, which, since the 1950s, has been an important guideline in Sweden's economic policy. The model pursues four goals: low unemployment, low inflation, high growth, and equal incomes. It is based on three policies: "solidarity wage policy", active labour market policy, and strict fiscal discipline.

The solidarity wage policy is based on the principle "equal pay for equal work": employees with similar jobs are paid the same wage regardless of the profit situation of

firms and industries (Erixon, 2010, p. 683). The policy reduces wage differentials between jobs, and promotes a more compressed wage structure. Wages in the low-paid tail of the wage distribution are higher than the market wages, while wages for highly paid jobs are lower than market wages (Anxo, 2017). Firms with high productivity levels gain high profits, and must pay workers the solidarity wage, not the higher market wage; firms with low productivity levels have high labour costs, because of high wages, which are not affordable. Such firms may have difficulties in surviving, so they may have to restructure or rationalise production, invest in productivity-enhancing technologies, or decide to close down. Employment adjustments through collective dismissals are continuous: unprofitable companies cannot survive in the Swedish market (Bergström, 2014).

Figure 4. Rehn-Meidner model



Source: Bergström (2014, p. 6).

Active labour market policies (ALMPs) are designed to facilitate the smooth and rapid flow of labour from declining to expanding industries (efficient employment services, retraining programmes, etc.). A strict distinction between employment protection and job protection came out: job protection means that people should be able to keep the job they have, whereas the idea of employment protection is to ensure that people can count on having some job. "Save workers, not jobs" became the Swedish motto. The government encouraged strong mobility in the labour market, by helping workers made redundant by unprofitable companies find new jobs in more productive and profitable companies. Bengtsson (2012, p. 5) provides a good description of the model:

> The social contract offered by the union side was to accept rapid structural labour market rationalizations, aimed to strengthen the competitiveness of the small, export-dependent Swedish economy, and thereby to promote labour force mobility, in exchange for income and employment security. The motto 'the security of the wings' was underlying the objectives of the model – to combine freedom and security to reach.

There is no trade-off between labour market flexibility and workers' security. Flexibility is achieved through a low degree of employment protection legislation; great employment security reduces workers' resistance to change, and facilitates a process of rapid structural transformation in the economy. The State's ALMPs help the re-employment process. The model represents an expression of the notion of flexicurity. Flexicurity has its roots in the Danish model of labour market, but Van Den Berg (2009, p. 246) states that "not the Danes or the Dutch, but the Swedes were the first to formulate the basic ideas underlying the notion of 'flexicurity'".

From the 1950s, the Swedish government started to invest in ALMPs, as well as in labour-market re-training and other mobility-enhancing measures, so that workers threatened by unemployment in low-productivity sectors could be moved to high-productivity sectors. The number of people in such programmes increased from about 500 a year in the early 1950s, to over 30,000 a year at the beginning of the 1970s. In the 1970s, ALMPs investments were high, mainly because of the expansion of the public sector. In the 1980s, training policies were designed to satisfy companies that needed labour supply in certain occupational areas (Lindvert, 2015). Between 1991 and 1995, Sweden's average expenditure on ALMPs was higher than in any other country: it amounted to 1.79% of GDP, while the EU average was 0.79% (Calmfors *et al.*, 2004). Extracting data from OECD.Stat about active labour market expenditure over the years, we can see that expenditure reached its peak in 1998 (2.33% of GDP), but then it started to decline. In 2008, it reached its lower value (0.83% of GDP), then it started to increase again. In 2017, it was 1.25% of GDP. Sweden is the second member country of the Organisation for Economic Co-operation and Development (OECD) after Denmark for expenditure in ALMPs.

Figure 5. Annual public expenditure as a percentage of GDP in Sweden

Time	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Programmes 1										
10: PES and administration	0,26	0,26	0,26	0,24	0,24	0,23	0,23	0,23	0,22	0,22
20: Training	0,48	0,51	0,54	0,90	0,85	0,61	0,55	0,46	0,23	0,19
40: Employment incentives	0,58	0,53	0,48	0,51	0,52	0,46	0,44	0,43	0,38	0,39
50: Sheltered and supported employment and rehabilitation	0,30	0,29	0,28	0,27	0,25	0,23	0,22	0,22	0,20	0,20
60: Direct job creation	0,37	0,39	0,40	0,34	0,18	0,06	0,00	0,00	0,00	0,00
70: Start-up incentives	0,07	0,07	0,07	0,07	0,06	0,05	0,04	0,04	0,03	0,03
100: Total	4,04	3,98	3,92	4,02	3,67	2,92	2,54	2,44	2,28	2,35
110: Active measures (10-70)	2,06	2,04	2,03	2,33	2,11	1,63	1,47	1,38	1,06	1,03

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
0,21	0,21	0,20	0,19	0,24	0,27	0,25	0,27	0,29	0,26	0,26	0,27	0,28
0,19	0,20	0,10	0,06	0,06	0,10	0,09	0,10	0,13	0,14	0,15	0,13	0,13
0,47	0,54	0,48	0,38	0,39	0,50	0,56	0,64	0,64	0,65	0,60	0,50	0,48
0,19	0,18	0,17	0,18	0,21	0,22	0,24	0,25	0,28	0,28	0,26	0,26	0,24
0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,03	0,03	0,02	0,01	0,01	0,02	0,01	0,01	0,01	0,01	0,01	0,01	0,12
2,32	2,17	1,67	1,37	1,78	1,87	1,76	1,91	2,03	1,94	1,81	1,73	1,78
1,10	1,16	0,97	0,83	0,91	1,11	1,16	1,28	1,35	1,33	1,26	1,17	1,25

Source: data extracted on 29 October 2019 10:02 UTC (GMT) from OECD.Stat (https://stats.oecd.org/).

The Swedish Public Employment Service (PES, *Arbetsförmedlingen*) has always played an active role in labour market policy, directing and coordinating it by using government funds. It has helped to mitigate the negative consequences of restructuring in the Swedish economy, and had the monopoly in job placement until 1993, when deregulation was carried out. Today, this service contributes to the replacement process of redundant workers that belong to target groups, including those who suffer from long-term unemployment, as well as the vulnerable workforce (immigrants and low-skilled people).

3.5. ALMPs from public to private: JSCs

At the end of the 1960s, the Swedish economy went through several structural changes, and experienced a period of deteriorating economic conditions. The situation culminated in a massive job loss of white-collar workers in 1973. The employees were not satisfied with the services that the PES offered them, since it was not providing them with enough support to find new jobs. Therefore, the social partners decided to establish an organisation that would provide services to this group of workers, through specific collective agreements regulating conditions for restructuring (OECD, 2015). Over the years, special collective agreements covering certain industries or sectors, or special groups of workers were established: they were the so-called "restructuring agreements", which established the JSCs.

JSCs are institutions that exist only in the Swedish labour market, and are not present in any other OECD country. They are bipartite social partner bodies, established by an agreement between a trade union, or a trade union confederation, and an employers' association: nowadays, they cover almost 80% of the Swedish labour force. From a legal perspective, the entities are special associations, and benefit from a restricted tax liability.

JSCs' activities are financed directly by the employers: they pay a yearly fee to the foundations, which usually amounts to around 0.3% of employers' payroll expense. The funds are used by the JSCs to offer transition packages to workers made redundant by the employers that are members of the relevant employers' association. When an employer is going to lay off workers, it alerts the JSC, which intervenes immediately. At the beginning, JSCs were seen as complementary bodies to the PES's operations, but today, thanks to the deregulation of the PES's monopoly on job placement in 1993, they are the first actors approaching displaced workers to help them find new jobs, with no involvement of the government (Bergström, 2014). Their action alleviates the costs of the restructuring process for employers and employees, and fosters prompt labour reallocation. Bergström (2014, p. 13) claims that:

> The expansion of Job Security Councils represents a shift – from the state to the social partners – to deal with the problems of restructuring in the Swedish labour market through central collective agreements. Thus, it may be regarded as a resurrection or return to the backbone of the Swedish model.

JSCs' support to dismissed workers in the job-to-job transition process represents a security net. Since 1973, many JSCs were established, and the five most important ones are listed in Table 1.

Table 1. Main JSCs

Name	Category	Trade union	Employers' association
TRR trygghetrådet	Private-sector white-collar workers	Privattjänstemanna kartellen (PTK)	Confederation of Swedish Enterprise
TSL	Blue-collar workers	LO	Confederation of Swedish Enterprise
Trygghetsstiftelsen	State employees	OFR/S, P, O, Saco-S, and SEKO	Swedish Agency for Government Employers
TRS	Civil-society workers and creative, cultural, and sports sectors	Privattjänstemanna kartellen (PTK)	Arbetsgivaralliansen, Svensk Scenkonst, Teatercentrum, and Danscentrum
Omställningsfonden	Municipalities and healthcare sector	OFRs förbundsområden and AkademikerAlliansen	Sveriges Kommuner och Landsting and Arbetsgivarförbundet Pacta

Source: adapted from Bergström (2014, p. 13).

Sweden is an example of how social dialogue between the social partners is functional to anticipating and managing any kind of transformation in the economic system. Sweden has been successful in promoting flexibility by strongly supporting workers rather than jobs, quickly adapting to globalisation and technological change, while being able to protect workers who suffer for economic restructuring. Unions accept job cuts because they know workers will be retrained and made more productive. Employers finance JSCs because they can deviate from the LIFO rule for dismissals. Then, restructuring must not be opposed, because it helps to increase companies' productivity and the country's overall competitiveness. JSCs are Sweden's peculiar instrument for that.

3.6. Re-employment stages

Preparatory stage: employers inform trade unions about any important change in companies, if there is an expected risk of reducing the number of workers. Unions and employers find an agreement on the restructuring strategy and on the number of workers to be made redundant, also deviating from the LIFO rule (*ivi*).

Intervention: as soon as the employer sends the redundancy notification to the employees, it alerts the JSC of the employers' association to which it belongs. The job-to-job transition programme starts when the worker has been given notice of dismissal, usually before the worker has left the old job. On average, the programme begins one or two months before the notified last day of employment. The JSC supports laid-off workers through services typical of ALMPs (coaching, training, etc.) (OECD, 2015). Workers receive income support from the former employer during the dismissal period, which can last from one to six months, with an additional period of six months. JSCs' strength lays in the early intervention: workers receive support since the redundancy announcement, even before they stop working.

The PES's initiative: when the income support from the former employer runs out and if the employee has not found a new job yet, the PES gets involved, providing the worker

with the unemployment benefit income, and helping him through the labour market programmes. The PES takes care of long-term unemployed people and of vulnerable groups.

Do JSCs achieve their objective? Their success in placing dismissed workers into new jobs is noticeable, as it emerges from JSCs' statistics. Approximately 80% of those offered transition support find a new "solution" in seven or eight months after dismissal (a solution that does not necessarily match with the previous job, from a duration and an economic point of view). However, re-employment rates are very high: in the plot, results are differentiated by JSC.

Figure 6. Percentage of clients re-employed within 12 months or less after displacement

Name	Category	Trade union	Employers association
TRR trygghetrådet	Private sector white collar workers	Privattjänstemanna kartellen (PTK)	Confederation of Swedish Enterprise
TSL	Blue collar workers	LO	Confederation of Swedish Enterprise
Trygghetsstiftelsen	State employees	OFR/S, P, O, Saco-S and SEKO	Swedish Agency for Government Employers
TRS	Civil society workers, creative, cultural and sports sector	Privattjänstemanna kartellen (PTK)	Arbetsgivaralliansen, Svensk Scenkonst, Teatercentrum and Danscentrum
Omställningsfonden	Municipalities and health care sector	Kommunal OFRs förbundsområden AkademikerAlliansen	Sveriges Kommuner och Landsting Arbetsgivarförbundet Pacta

Note: these results refer to 2014, except for the result for TRR, which refers to 2013. The result of the JSC Trygghetsfonden (TSL) is referred to a period of 12 months, TRR is referred to a period of seven months, and the Job Security Foundation's result is the success rate before the expiration of the notice period.
Source: OECD (2015, p. 81).

Once workers have been made redundant, if they have no alternative, they could be forced to move to the low-skilled tail of the employment structure, and settle for a job with worse conditions and a lower wage. But this is less likely to happen in Sweden, thanks to its labour market model, since most of Swedish workers are covered by the JSCs, and receive a careful re-employment assistance through job-to-job transition services. For example, JSCs can help workers whose jobs are automated to move quickly into other jobs that make a productive use of their skills. Workers are helped to find a new job, even in a better economic position; they can be helped to acquire new skills and "climb" into the higher-skilled segment of the employment structure.

4. Case study: an empirical analysis of a re-employment process

Enhancing employment mobility, and facilitating reskilling and transitions to new jobs are important elements of the Swedish labour market model, and could explain why Sweden has not experimented a radical polarisation in the employment structure. The aim of the paper is to empirically investigate whether the action of one of these peculiar Swedish labour market institutions could contribute, albeit in a limited way, to the upgrading trend of the Swedish employment structure, by analysing quantitative and qualitative results of the re-employment process. We will use individual-level data on job-to-job assistance provided to a representative sample of laid-off workers in a certain period by the JSC that covers blue-collar workers in the private sector. The data are first-hand, internal to the JSC's database, and not available to the public, and have never been processed before.[6]

4.1. The JSC (TSL)

The JSC TSL was established in 2004 by an agreement between LO and the Confederation of Swedish Enterprise. It covers 900,000 blue-collar workers in the private sector, employed in 100,000 companies, and is the largest restructuring agreement in terms of workers enrolled.[7]

TSL supports private-sector employees who are made redundant due to work shortages and lack of work, which is a situation where the employer does not have enough work to justify keeping workers on the payroll. TSL supports also employees who are made redundant for firms' restructuring necessities. A worker can get support if the company by which he/she has been terminated has a collective agreement with an LO association; the worker does not need to be a member of the union.

The eligibility requirements for re-employment assistance are:[8]

– permanent employment;
– 12 months of continuous employment at one or more companies with collective agreements;
– having worked at least 16 hours per week; and
– being below 65 years of age.

The assistance programme lasts for 12 months, at most, but can be shorter. When the job-to-job transition process ends, TSL sends a questionnaire to all the workers who have received help.

4.1.1. JSCs during the coronavirus pandemic[9]

During the last months, the world has been hit by the coronavirus pandemic, and is facing a health and economic crisis. In Sweden, as in other countries, the number of laid-off employees has significantly increased, as a result of the pandemic. The JSCs have to deal with this emergency situation.

From January to April 2020, 5,720 laid-off workers were eligible for support from TSL. Last year, in the same period, 3,277 people were granted support: from year to year, the number of supported workers increased by 75%. Forty-five per cent of those laid off were

[6] I thank Caroline Söder, CEO of the JSC TSL, for giving me access to her organisation's internal data.
[7] The sectors are manufacturing, construction, cooking and food service, transports, hospitality and hotels, etc.
[8] Further information is available at: www.tsl.se (last consultation on 14 December 2019).
[9] The information is taken from the first quarterly report 2020 by TSL (Trygghetsfonden Tsl, 2020).

notified only in March. Above all, the redundancies are from sectors and categories of workers that TSL does not deal with often: retail, transports, hospitality, and restaurants and hotels. Job seekers can no longer expect to get a new job in the sector they used to work in, as it usually happened, because, for example, almost all hotels and restaurants are affected by the crisis. This means that a lot of people need to find a new job in another sector, so they need to be helped in reskilling. Moreover, mostly young low-skilled women are made redundant.

In order to face this situation, TSL is focusing on redistributing resources and on adjusting the business processes so that everyone who is now laid off, and has the right to receive support gets help to find a new job. Additional staff has been employed in order to set up a new organisation, which is able to take on 20,000 job seekers.

It is clearly too early to draw any kind of conclusions, but TSL and the other JSCs are expected to prove once again their effectiveness in supporting laid-off employees.

4.2. Data and aim of the research

We will analyse individual-level data from TSL on assistance provided in the job-to-job transition process to a representative sample of 3,582 people, who participated in the support programme, found a "solution", and answered the questionnaire in the period that goes from 1 November 2017 to 2 December 2019. The participants are blue-collar workers that meet the eligibility requirements. In the sample, there are people who at most started the dismissal period one year before the data reference period (November 2016). The dataset gives information on workers' personal characteristics and on the characteristics of the new jobs.

Which "treatment"?

All laid-off employees receive coaching support, and are matched with a job coach. The coach's mission is to help to *self-help* the worker: he/she does not directly find a job for the worker, but helps the latter be active in looking for a new one. The activities include mapping of the employees' skills and knowledge, support in job search, help in writing CVs and job applications, and practise for job interviews. The coaches get a fixed amount for each worker they support, regardless of how long the coaching lasts. If there is a massive layoff of employees, the total amount can be distributed among workers within the same notification (Andersson, 2018).

In addition to job coaching, there is also the possibility for the participants in the transition process to attend professional training courses and to obtain validation of professional skills, in order to increase employability and to enhance job prospects. The participant and the coach discuss together about this possibility, and can apply for it.[10]

Which solution?

At the end of the transition programme, workers can reach different types of "solution":

– job with a permanent contract;
– job with a short-term temporary contract (six months or less, and more than six months);
– education programme, full-time or part-time;
– some individuals start their own business;
– sickness or unavailability to work; and
– some individuals do not find a solution, so they enter unemployment, and join the PES's labour market programmes.

All the employees involved in the transition programme receive coaching support; some of them receive also the "treatment" training. In the data analysis, those receiving

[10] Further information is available at: www.tsl.se (last consultation on 15 December 2019).

only coaching support belong to the control group, while those attending some training courses belong to the treatment group.

In the paper, we analysed whether and to what extent the differential treatment affects the probability of finding a new job, and whether and to what extent it affects the probability of finding a job under a permanent contract, with stable contract conditions. When a worker finds a new job, he/she could earn a wage that is lower, equal, or higher than the wage in the previous job. The new job could be less, equally, or more qualified than the previous one. We evaluated the quality outcome of TSL's re-employment processes for workers who have been successfully re-employed, studying, again, the differential treatment effects on the probability of finding a job with an equal or higher wage than in the previous job and on the probability of finding a job equally or more qualified than the previous one. Thus, we empirically investigated whether the action of Swedish labour market institutions – the training effect, additional to coaching – contributes to polarisation or upgrading in the Swedish employment structure, measured in terms of maintenance or improvement of wages and of maintenance or improvement of job qualification.

In case of polarisation, we would observe a worsening of the wage and job qualification levels more often than a maintenance of wage and job qualification levels; if there were upgrading, the maintenance or improvement of wages and of job qualification would prevail.

Among all Swedish labour market institutions dealing with ALMPs, we focus the attention on one relevant aspect that can affect the Swedish employment structure.

4.2.1. Data limitations

The analysis suffers some limitations due to data availability. First, it has not been possible to have counterfactual data about other workers dismissed in the same period, and not supported by the JSC. Therefore, it was not possible to make a comparison between those treated by the JSC, and those who were not.[11] Second, the available independent variables that identify personal characteristics are limited to the information gathered by the final questionnaire. Third, the time period is limited.

4.3. Descriptive analysis

The dataset provides eight variables:

– three variables describe personal characteristics of workers supported by the JSC: gender, age, and level of education;

– one variable describes the treatment: it reveals whether workers have attended training in addition to coaching;

– one variable describes the condition (working or not) of employees at the end of the TSL programme, the so-called "solution";

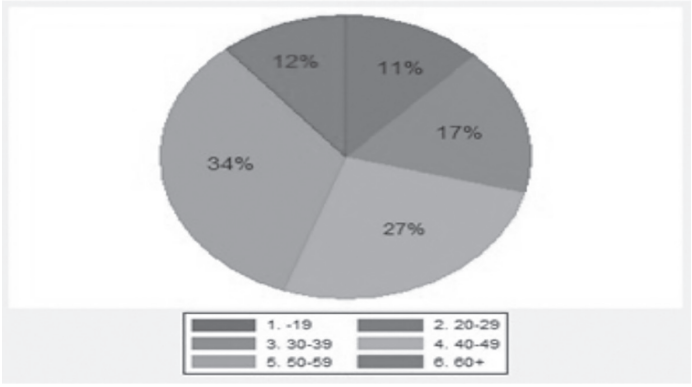
– three variables describe the characteristics of the new workplace: wage (in the questionnaire, it is asked whether it is higher than, the same as, or lower than in the previous job); job qualification (in the questionnaire, it is asked whether it is equally, more, or less qualified than the previous one); and move (participants are asked whether they had to move to another region to get the new job).

Gender: 36% are women, and 64% are men.

[11] This type of data is difficult to obtain, since the majority of workers in Sweden are covered by some kind of agreements with a JSC.

Age: in the following graph, it is possible to see how individuals are distributed among age groups, grouped in 10-year classes.

Figure 7. Age distribution in the sample

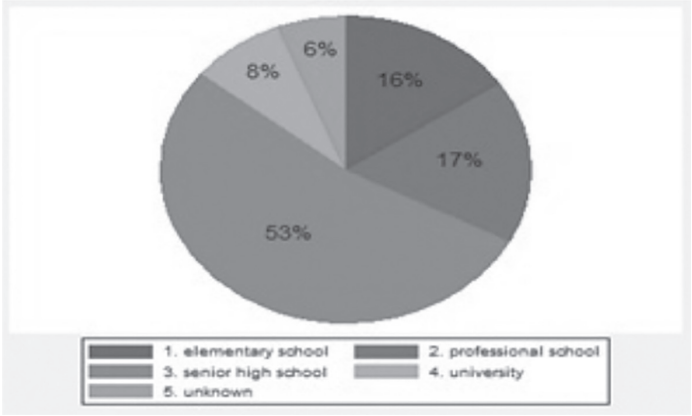


Source: author's calculation.

Most displaced workers are older workers (50-59). We previously saw that Swedish law has specific rules on the priority between the employees in situations of redundancy (LIFO). If we assume that older workers have been hired for a longer time than the younger ones, we could deduce that there has been a deviation from the LIFO rule.

Education: elementary school, professional school, senior high school, and university.

Figure 8. Education distribution in the sample



Source: author's calculation.

More than 53% of workers in the sample have senior high school as last completed level of education.

Treatment: 70% of workers have received only coaching support, while almost 30% have attended training courses in addition to coaching.

Move: only 2% of workers had to geographically move to start the new job.

Solution: in the following table, it is possible to see the outcome of the transition process.

Table 2. Solution distribution in the sample

Transition support outcome	Frequency	Percentage
Permanent contract	1,747	48.77
Temporary contract of more than six months	451	12.59
Temporary contract of six months or less	556	15.52
Short-term temporary contract	245	5.87
Own business	53	1.75
Education	5	0.14
Full-time education	145	4.05
Part-time education	8	0.22
Job seeking	143	3.99
Sickness	2	0.06
Not available for the labour market	112	3.13
Non-participation	1	0.03
Abandoned programme	34	0.95
Unemployment	69	1.93
Total	3,582	100.00

Source: author's calculation.

Six per cent have not found a solution, so they have become unemployed, and entered PES programmes, or are jobseekers. Five per cent decided to start an education programme, and 3% are not available for the market. One per cent is the programme dropout rate. Only one person has decided not to join the JSC's services.

Many supported employees have found a new employment: 3,063 out of 3,582 (86%). With "new employment", we refer to five different solutions: jobs with a permanent contract, jobs with a short-term temporary contract, jobs with a temporary contract of six months or less, jobs with a temporary contract of more than six months, and then own businesses.

4.4. Empirical strategy: the IPWRA model

Workers who attended training courses besides coaching activities represent our treated group, while workers who received only coaching support are the control group: we are

interested in setting up a differential impact analysis to test whether the additional treatment implies some relevant outcomes or not. Data show a selection bias problem: the groups are different with respect to some observable (and even unobservable) characteristics, which could also imply a difference in the outcome variables; since workers voluntarily choose whether to get the treatment training or not, the individuals are said to have "self-selected" themselves within the treated and untreated groups, and are not randomly assigned to the groups.

A random treatment assignment could eliminate the selection bias problem, and would make an experimental method accessible, but we were not able to use it, because of the available data. However, when there is confounding due to selection bias, but selection characteristics are observed in the dataset, it is possible to condition treatment on those characteristics to try to get an unbiased estimate of the treatment effect, using the treatment model named "Inverse Probability Weighting Regression Adjustment" (IPWRA) (Cameron and Trivedi, 2005). Causal effects can be estimated after conditioning on covariates (Angrist, 2001).

Inverse probability weighting estimates selection for treatment, and predicts probability of treatment for all observations. It assigns the inverse probability of treatment to treated individuals, and the inverse probability of not being treated to untreated individuals. The idea is that, when the treated individual has observable characteristics that create a high probability of treatment, he/she is weighed little, and where the untreated individual has a low probability of treatment, he/she is weighed a lot: the individuals are "compensated", they become similar, and it is possible to estimate the outcome model using the new weights.

We created a dummy variable, *CoachingTraining*, which has value 1 when the participant has attended training courses, besides coaching activities, while it has value 0 if the participant has received only coaching activities. The correct and well-balanced treatment model specification has *CoachingTraining* as a dependent variable, and the dummies for personal characteristics plus interaction terms as independent variables.

4.5. Main findings

Probability of employment

We created the dummy variable *Employed,* with value 1 if the new solution of the transition process is a new type of job,[12] and 0 in any other case.

Table 3. Treatment effects estimation on probability of employment

Outcome		Coef.	Rob. standard error	P-value	Number of obs. = 3,366
Employed	Average treatment effect	–.002269	.015151	0.881	
	POmean	0.857725	.007113	0.000	

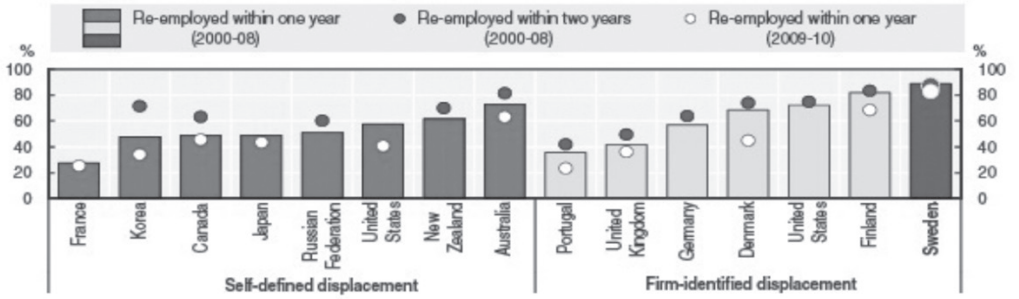
Note: POmean: potential outcome mean.
Source: author's calculation.

[12] We considered jobs with five different characteristics: with a permanent contract, with a short-term temporary contract, with a temporary contract of six months or less, with a temporary contract of more than six months, and own businesses.

For the untreated group, the average probability of becoming employed (POmean) is around 86%. The average probability of becoming employed (ATE) for people who receive the treatment training is lower but not significant: attending training courses does not affect the probability of becoming employed.

At this point, a brief digression is possible: OECD calculations based on Individual and Firm Level Data Base at Growth Analysis data – a Swedish employer-employee database – report official re-employment rates of Swedish displaced workers[13] during the period 2000-2009. On average, 87% of displaced workers were re-employed within one, two, and three years after the displacement occurred. The rates are higher than in any other OECD country (OECD, 2015), and very close to the re-employment rate in the JSC's dataset under examination.

Figure 9. Re-employment rates in OECD countries in 2000-2010



Source: OECD (2015, p. 29).

Probability of having a permanent contract

We created the dummy variable *PermanentContract,* with value 1 if the worker has found a job with a permanent contract, and 0 in any other case.

Table 4. Treatment effects estimation on probability of having a permanent contract

Outcome		Coef.	Rob. standard error	P-value	Number of obs. = 3,366
Permanent Contract	Average treatment effect	–.008673	.020159	0.667	
	POmean	.492466	.010281	0.000	

Note: POmean: potential outcome mean.
Source: author's calculation.

[13] Employees or self-employed.

For the untreated group, the average probability of finding a permanent contract/job is around 50%. For the treated group, the average probability is lower but not significant: attending training courses does not affect the probability of finding a job with a permanent contract.

Probability of having the same wage or a higher wage

Participants in the JSC's programme are asked a question about the wage level earned in the new job. We analysed whether, through the JSC's different treatments, the participants could find a job with a wage that is equal to, or higher than the one earned previously, so whether they were in a condition of upgrading, measured in terms of wages. Here, there is another kind of selection bias: we considered a group of individuals that are already "the best" between all, because they have all been re-employed. Because of this and because of missing data, the sampled observations are 2,288. We created the dummy *Upwage*, with value 1 if the new wage is the same as, or higher than the previous wage, and 0 if the wage is lower.

Table 5. Treatment effects estimation on the probability of wage upgrading

Outcome		Coef.	Rob. standard error	P-value	Number of obs. = 2,288
Upwage	Average treatment effect	–.023549	.023668	0.320	
	POmean	.611196	.012226	0.000	

Note: POmean: potential outcome mean.
Source: author's calculation.

For the untreated individuals, the average probability of having the same or a higher wage than the previous one is around 61%. For the treated group, the average probability is lower but not significant.

Probability of having a job being equally qualified or higher-qualified

In the questionnaire, individuals were asked whether their new job was equally, more, or less qualified than the previous one. The aim was to analyse, among employed people, whether and how the additional treatment affects the probability of finding a job that is more (or at least equally) qualified than the previous one: a situation of upgrading in terms of job qualification. Setting missing data and some anomalies aside, the sampled observations are now 2,170.

We created the dummy *Upqualification*, with value 1 if the new job is equally or more qualified than the previous job, and 0 if it is less qualified.

For untreated individuals, the average probability of finding a job that is equally or more qualified than the previous one is around 87%. For the treated group, the average probability is lower but not significant.

Table 6. Treatment effects estimation on the probability of job-qualification upgrading

Outcome		Coef.	Rob. standard error	P-value	Number of obs. = 2,170
Upqualification	Average treatment effect	–.018522	.017830	0.299	
	POmean	.879448	.008392	0.000	

Note: POmean: potential outcome mean.
Source: author's calculation.

5. Conclusions

According to our findings, the job-to-job transition assistance offered by the Swedish JSC TSL to laid-off blue-collar workers results to be effective in terms of re-employment rates. In our sample, for people who had received coaching support, the probability of finding a new job is 86%, while the probability of finding a job under a permanent contract is 50%.

The JSC helps people find a better-paid and better-qualified job: for people who have received coaching support, the probability of upgrading in terms of wages is high (61%), and also the probability of upgrading in terms of job qualification is high (87%). Then, it is possible to say that the action of the JSC contributes to the upgrading trend of the Swedish employment structure, if upgrading is measured in terms of maintenance or improvement of wages and of job qualification, when a worker loses his/her job, and finds a new one. However, according to the empirical analysis, the observed good results cannot be attributed to the additional treatment training. As argued, our research is not a policy evaluation, since counterfactual data were not available, but is a differential treatment analysis within the JSC's functioning.

Why does training during TSL's job-to-job transition process not have a significant impact on workers' re-employment outcome, as one could expect? Three different explanations may be advanced in this regard. First, in addition to coaching activities, training is useless. Second, there is a selection bias problem: maybe workers who attended training courses are those who are less skilled or less active in looking for a new job among the participants in the JSC's programme. Given the low number of variables at disposal, our analysis could only partially deal with this problem. Third, there could be a lock-in effect: people attending training courses can spend less time in looking for a job than people who do not attend training courses. Therefore, they could "get trapped" in the training programme, and could not find a job, or could find it but not in line with the desired characteristics described before. It is also necessary to consider the timing of the questionnaire: the participants filled it out just at the end of the programme. It would be useful to consider also the medium-long-term effects of the training programme, not just the short-term ones.

The available data allow us to carry out only a preliminary analysis, and do not make it possible to prove which of the three hypotheses is verified. In order for this aspect to be deepened, further research is required.

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