Temporary Jobs and On-the-Job Training in Sweden - A Negative Nexus?

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TEMPORARY JOBS AND ON-THE-JOB TRAINING IN SWEDEN – A NEGATIVE NEXUS?♦

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Abstract

This paper investigates temporary jobs and on-the-job training in the Swedish labour market during the 1990s. The analysis focuses on how the incidence and the amount of OJT differ between workers who hold temporary jobs vis-à-vis workers who hold open-ended jobs. An important aspect is also possible disparities between the genders, and between native Swedes and foreign-born workers. The results show that the incidence of OJT for temporary jobholders is lower than for corresponding open-ended jobholders. However, conditional on a worker receives OJT, it is not automatically the case that the amount of OJT is lower for all temporary jobholders. Further, the amount of OJT received by female workers is, in general, lower than for comparable male workers. Foreign-born workers (regardless of gender) have a lower incidence of OJT, but conditioned on that they receive OJT the amount is (for foreign born males in particular) often higher than for Swedish-born workers.

1 INTRODUCTION

Employer-provided training (OJT) in Swedish firms amounted 45 per cent of the workforce during the first half of 2001, which, in an international perspective, is a relatively high figure (OECD, 1999). One way to interpret this figure is that staff training is an important method to increase the human capital, and the skills, of the Swedish workforce. However, the distribution of OJT is likely to differ between workers, for example, with respect to employment contracts. This might further add to an already segmented Swedish labour market, in the sense that workers do not have equal opportunities to increase their human capital by means of OJT.

The aim of this paper is to investigate the nexus between temporary jobs and on-the-job training in the Swedish labour market during the period 1995-2000. Two main questions are in focus: *(i)* does the probability of participating in OJT differ between workers who hold different types of employment contracts? *(ii)* does the amount of OJT differ

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between workers who hold different types of employment contracts? We study open-ended jobs vis-à-vis different types of temporary jobs, and we will also put special focus on differences between the genders, and between native origins. The types of temporary jobs that are analysed are replacement jobs, probation jobs, project jobs, and on-call jobs. These four types of temporary jobs represent about 75 per cent of all such jobs in Sweden. Descriptive statistics of OJT and temporary jobs in Sweden show, for instance, that temporary jobholders receive less on-the-job training than open-ended once, and large disparities are found between different types of temporary jobs (see Wallette, 2004), and Aronsson & Göransson (1998) show that a large share of temporary jobholders finds themselves being neglected with regard to necessary OJT.

Arulampalam *et al.* (2003) show that holding a fixed-term contract in many countries implies a lower probability of receiving training, and Arulampalam & Booth (1998), and Booth *et al.* (2000), reach the result that characteristics which proxy a flexible labour market decrease the probability of receiving on-the-job training in Britain. Shields (1998) reach the same conclusion. McIntosh (1999) analyses the determinants of training across six countries.[1] A bit surprising and, to some extent, in contrast to theoretical arguments, the probability of getting OJT in Germany, the Netherlands, and in the UK, is higher for individuals who hold temporary jobs. Jonker & de Grip (1999) study the prospect of OJT for employees who hold flexible contracts in the Netherlands. Such workers have a lower probability of participating in OJT compared to open-ended jobholders. The duration of OJT is also addressed, and conditioned on a flexible worker receives training; there is no difference in the duration between flexible and open-ended jobholders.

The paper is structured as follows. *Section 2* contains a theoretical discussion regarding OJT and temporary jobs. In *section 3* we present our data set, descriptive statistics, and the econometrical model. *Section 4* presents our empirical results, and *section 5* sums up the study and gives some concluding remarks.

2 TEMPORARY JOBS AND ON-THE-JOB TRAINING

The opportunity to take part in on-the-job training may have different implications, and gains, depending on if one holds a temporary job or an open-ended job. In addition to the pecuniary gains from human capital investments (which the standard theory predicts)

[1] The countries are Germany, France, the Netherlands, Portugal, Sweden, and the United Kingdom.

there might exist other gains for temporary workers.[1] On-the-job training can improve the future possibility of receiving an open-ended job in that OJT is expected to increase the worker's overall employability. Firstly, OJT helps the worker to maintain or upgrade her/his skills. Secondly, training might serve as a signal to the employer that the individual has the needed skills, or that she/he is able and willing to learn. Thirdly, an individual who is willing to take part in such training can be said to show loyalty towards the employer, and this might improve her/his chances to get an open-ended job if the core of the firm's work force is to be increased. It might thus be the case that for temporary jobholders, OJT is more important as a means to increase general employability, than to increase wages.

If we compare workers who hold open-ended jobs with those who hold temporary jobs, it is surely the case that, other things being equal, holding a temporary job means, in general, less OJT compared to an open-ended job – both with respect to the incidence of training and the amount of training. This fact lies in the mere concept of a temporary job. A temporary job is supposed to have a limited duration, and the discount period is thus typically shorter for workers who hold temporary jobs than for workers who hold open-ended jobs. The employer faces a higher risk of losing part of (or all) the investment if OJT is offered to temporary jobholders, than if OJT is offered to workers who hold open-ended jobs. Another reason relates to the purpose of temporary jobs. Temporary jobs might, for example, be used to enhance flexibility within a firm, or to replace an absent worker, or for a specific task or job (see the discussion in Wallette, 2004). Most likely, the firm does not employ workers on short-term contracts unless these individuals already, in the main, possess the skills that are required for the particular job or task. In fact, a firm's offer probability of temporary jobs might be increased by the fact that they can be cost saving regarding OJT. A firm has thus, in general, relatively weak incentives to provide on-the-job training for temporary jobholders if these are actually employed on a temporary basis. However, if the firm frequently employs the same individuals as temporary workers, or if the temporary job is of a longer duration, a certain amount of on-the-job training is probably offered to these workers as well.

[1] These gains can of course also be important for workers with open-ended jobs, but it might be that they are even more important for temporary jobholders.

By means of the classical human capital theory one would thus expect that temporary jobholders receive a very small amount of OJT (or none at all). However, the assumptions made in the classical model are rarely fulfilled, and asymmetric information, such as worker ability and worker motivation, is often frequent in the labour market. We should thus also relate to models in which information is limited and imperfect when we discuss reasons why employers might offer OJT also to workers who hold temporary jobs.[1] One reason why employers offer a temporary job is to screen workers with regard to, for example, skills and motivation. In this framework, temporary jobs are used to elicit private information of value to the employer. Screening in this sense can also apply to the context of OJT (see Autor, 2001). On-the-job training might enhance the screening process, and serve as an effective tool for the employer to find the "right" employee. The worker's "trainability" can be tested, i.e. the worker's motivation towards training, her/his willingness to learn, and ability to learn, might be revealed. OJT itself is in this setting used as a screening tool, and it is likely that such use differs between different types of temporary jobs, and the purpose of a particular temporary job must consequently be taken into account. For example, an employer is probably more likely to use OJT in combination with probation jobs than in combination with on-call jobs as these types of temporary jobs in general have very different purposes, and are of very different character. For example, probation jobs serve as a testing and learning period, and probably in combination with some amount of on-the-job training. On-call jobs, on the other hand, are often held by individuals on whom the employer can call when there is an immediate need for additional workers in the firm, i.e. on-call workers are in this respect assumed to have the requested skills and are not offered OJT. Loh (1994) discusses probationary jobs in the U.S. and shows that workers who hold jobs with a probation period have a higher frequency of OJT compared to workers who hold jobs without a probation period.

Another reason for the firm to offer OJT even if a job is of temporary nature is the possibility of inducing self-selection among workers (see Autor, 2001). The idea is that high-ability workers have advantages over low-ability workers regarding learning possibilities (training is assumed to be less costly and more valuable for high ability workers). That is, by offering temporary jobs that include on-the-job training, the firm

[1] See for example Autor (2001), Acemoglu & Pischke (1999), Acemoglu & Pischke (1998), Loewenstein & Spletzer (1998), Bishop (1996), and Katz & Ziderman (1990) for different types of theoretical models and/or discussions that include imperfect information.

tries to attract high-ability workers by means of self-selection.[1] The firm can thus combine the screening possibilities that a temporary job offers with self-selection among workers in order to attract the most able and motivated workers. Most likely, the possibility of inducing self-selection differs between different types of temporary jobs. Project jobs are often high-ability jobs and self-selection to such jobs can thus be very useful for the firm. On-call jobs, on the other hand, are more often low-skill jobs and the firm might not have the same "need" to attract high-ability workers to these types of jobs. Loh (1994) also discusses the fact that probationary jobs as such are used to induce self-selection. Autor (2001) further argues that OJT as a screening device, and the possibility of self-selection, are reasons why many temporary help service firms in the U.S. offer free general training. If we relate this to the discussion of temporary jobs offered by firms directly, screening and self-selection might also be important in our case. A firm that offers OJT to temporary jobholders can play the part of the temporary help agency in the sense that the firm can "produce" necessary information services (to make information less private) for itself. Theoretical models that take into account imperfect information and non-competitive markets can thus be useful to explain why firms offer OJT to workers who hold temporary jobs.

3 DESCRIPTIVE STATISTICS

Our data comes from the *Swedish Labour Force Surveys* (LFS), and the specific data set used in this study is a supplementary survey to the ordinary LFS regarding on-the-job training, and covers every half-year during the years 1995 to 2000.[2] The added on-the-job training survey is conducted twice a year (in June and December) and the respondents are asked whether they have received OJT in some form during the previous six months, and if so, for how many days (answers may be given as fractions of whole days). Training is recorded as OJT if the employer finances (at least some part of) the training, and if it is supervised by a teacher, instructor, and lecturer or similar.[3] We only include individuals who hold either open-ended jobs or some type of temporary job. That is, we exclude observations for individuals who cannot be characterized as having an employment at the

[1] The idea is similar to the theory of efficiency wages.
[2] The years 1995-2000 were the only available years when this particular data set was purchased from Statistics Sweden.
[3] If the respondent answers "no" to the question "Has your employer/firm financed some part of the training (some of the courses), for example paid work time, course fees, travels, or literature?", the interview is terminated.

time of the survey. After this restriction the data set consists of some 77,000 observations.

The contents of the OJT were, by and large, stable during the period we are studying, and there were also some distinctive patterns.[1] The most common course contents were "Business economy and office", training related to different aspects of "Working life", and "Computer courses". Female workers often participated in training related to "Health and care" and "Behavioural science", while male workers participated in training related to "Technology". It was also the case that the most common course contents were, more or less, the same over different age groups.

As shown in *table 1*, the uncontrolled probability of receiving OJT during 1995-2000 was lower for temporary jobholders than for open-ended once. The difference between open-ended jobs and replacement jobs (the group with the highest incidence among the temporary jobs) was 11 percentage points. There are large disparities between different types of temporary jobs. The difference between replacement jobs and on-call jobs (the group with the lowest incidence of OJT) was roughly 20 percentage points. The percentages for probationary jobs and project jobs were lower than for replacement jobs, but higher than for on-call jobs. Thus, *table 1* provides a good illustration of the heterogeneity of temporary jobs in the dimension of probability of receiving on-the-job training.

Table 1 Absolute and relative (%) sample incidence of OJT in Sweden 1995-2000, by employment contracts.

Type of employment	**No OJT**	**%**	**OJT**	**%**	**Total**
Open-ended	35,177	53.7	30,303	46.3	*65,480*
Replacement	2,545	64.9	1,379	35.1	*3,924*
Probation	667	69.1	298	30.9	*965*
Project	1,381	71.4	552	28.6	*1,933*
On-call	1,840	86.0	300	14.0	*2,140*
Others	2,334	80.9	553	19.2	*2,887*
Total	*43,944*	*56.8*	*33,385*	*43.2*	*77,329*

Note: The category "others" includes categories such as "seasonal work", "work during holidays", "work practice" and different active labour market programmes that are coded as temporary jobs by Statistics Sweden (mostly programmes for youths).
Source: Calculations from the Swedish LFS.

[1] See Statistics Sweden, *Staff Training*, various years.

In *table 2*, we also present the incidence of OJT for different types of jobs by gender and origin.[1] Workers born outside Sweden had a lower probability of receiving OJT, regardless of type of employment contract. The average incidence of OJT, over all types of jobs, was approximately 36 per cent and 31 per cent for foreign-born females and foreign-born males respectively. For Swedish-born workers the corresponding figures were 46 per cent (females) and 42 per cent (males). The difference between the origins existed in all types of jobs, although of different magnitudes. Females, within origins, were more likely than males to receive OJT. This was the case for most types of employment contracts. The gender difference between native Swedes was on average three percentage points, and the gender difference between foreign-born workers was on average four percentage points.

Table 2 Relative sample incidence (%) of OJT in Sweden 1995-2000, by employment contracts, gender, and origin.

Type of Employment	**Swedish-born females**	**Foreign-born females**	**Swedish-born males**	**Foreign-born males**
Open-ended	49.2	39.1	45.0	34.4
Replacement	37.1	28.5	34.0	16.2
Probation	34.8	17.5	31.8	20.2
Project	35.8	29.7	23.9	22.0
On-call	14.2	10.5	14.9	11.1
Others	20.2	18.9	18.9	12.1
Total	*45.6*	*35.7*	*42.4*	*31.3*

Note: See note to *table 2*.
Source: Calculations from the Swedish LFS.

Two main questions are in focus in this paper: the incidence, and the number of days, of OJT. To analyses these questions, with the type of data set we have, we use a sample selection model (see Greene, 2000, Heckman, 1976). The model first models the selection to OJT, i.e. which characteristics determine the probability to participate in OJT, and in a second step, the determinants to the number of days in OJT are modelled. The first step is thus a binary choice, while the second step is a linear regression.[2] As we have a panel data set (albeit a rather small panel), we apply a cluster on individual level, i.e. we specify that observations are independent across groups (i.e. individuals), but not

[1] Concerning our variable for native origin (Swedish-born or foreign-born) it should be noted that foreign-born workers could have been Swedish residents for a considerable time or they may have just arrived in Sweden. Further, some are Swedish citizens, while others are not. They may be work immigrants, refugees, or family reunion immigrants. That is, the foreign-born group is likely to be heterogeneous.
[2] The software used is Stata 7.0.

necessarily independent within groups. This specification also implies a robust estimation of the variance.

The explanatory variables included in the analysis are individual and job variables, such as gender, age, educational attainment, socio-economic status, part-time work and trade union membership. We include household variables such as marital status and the presence of dependent children, and we also include a number of industry dummies, and a tenure variable, as the duration of the employment is likely to influence both the incidence and the amount of training a worker receives. To control for regional differences we also include regional (Swedish counties) unemployment rates, and to control for seasonal variation over the years we include time variables indicating every half-year during 1995-2000. The variables that are specific for the questions addressed in this study are different types of temporary jobs. To illuminate the importance of gender and native origin we have constructed interaction-variables between gender/origin and different types of employment contracts in the equation. As a reference individual we have a 35-44 year old Swedish-born married male without dependent children. He holds an open-ended full time job in the private manufacturing industry. His educational attainment is upper secondary school (1-2 years), and he is a skilled blue-collar worker who is also a member of The Swedish Trade Union Confederation (LO).

4 RESULTS

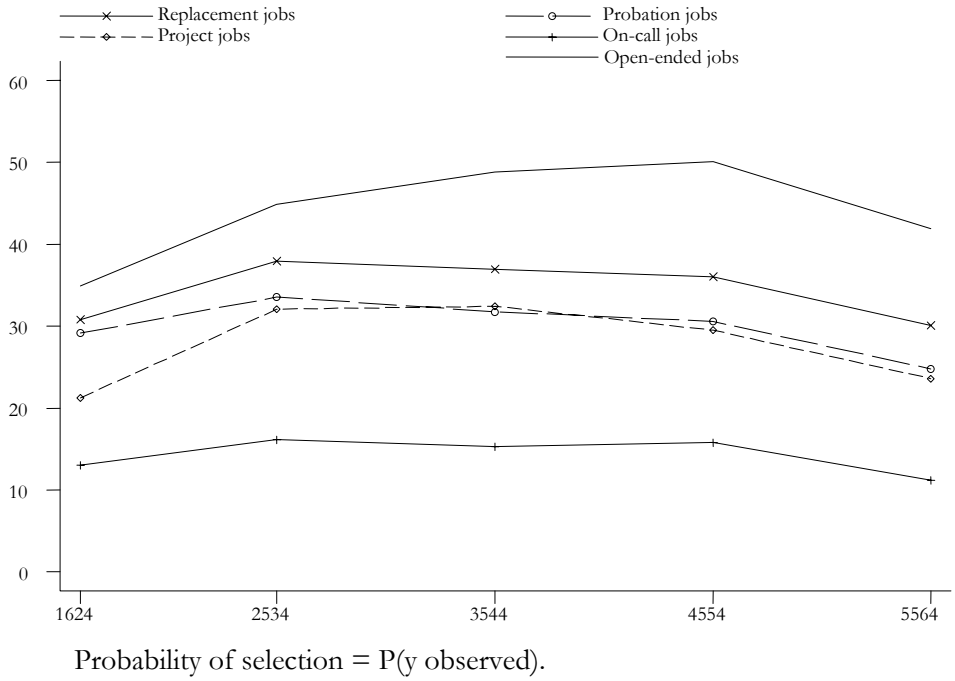
As we are not interested in the determinants of OJT *per se*, but instead have the specific aim of analysing the effects of different types of employment contracts, we choose to focus the discussion on these results. The estimated models are presented in *appendix A1*.

A main conclusion in our theoretical discussion was that workers who hold temporary jobs should have a lower probability of receiving OJT than workers who hold open-ended jobs. This follows from the standard human capital theory, and is also supported by the empirical results, see *column 2* under *model 1* in *appendix A1*. The estimated effects from the first step in the sample selection model (the probit estimation), on the probability of being selected, are negative and significant for all types of temporary jobs. There thus is a clear negative trade-off between holding a temporary job and receiving OJT when a number of other variables are controlled for. Wallette (2004) discuss the possibility of labour segmentation induced by temporary jobs, and the large differences in

the incidence of OJT between employment contracts might further add to such segmentation.

As expected, the estimated effects differ between different temporary jobs. The most negative effects are found for project temporary jobs and on-call jobs, while the smallest negative effect is found for probationary jobs.[1] This might suggest that probationary jobs, to a larger extent than other temporary jobs, function as screening tools in combination with OJT. It may be the case that the employer values probation jobs as being more equivalent to open-ended jobs compared to other types of temporary jobs. It is also the case that the main purpose of probationary jobs is that they should lead to open-ended jobs once the probation period is over. In *figure 1* we also illustrate the above by presenting average predicted probabilities of selection from the regression model.

Figure 1 ***Average predicted probabilities (%) of selection to OJT for different temporary jobs.***



Note: The calculations are based on the mean values for characteristics other than type of temporary job and age groups. Estimated from *model 1*.

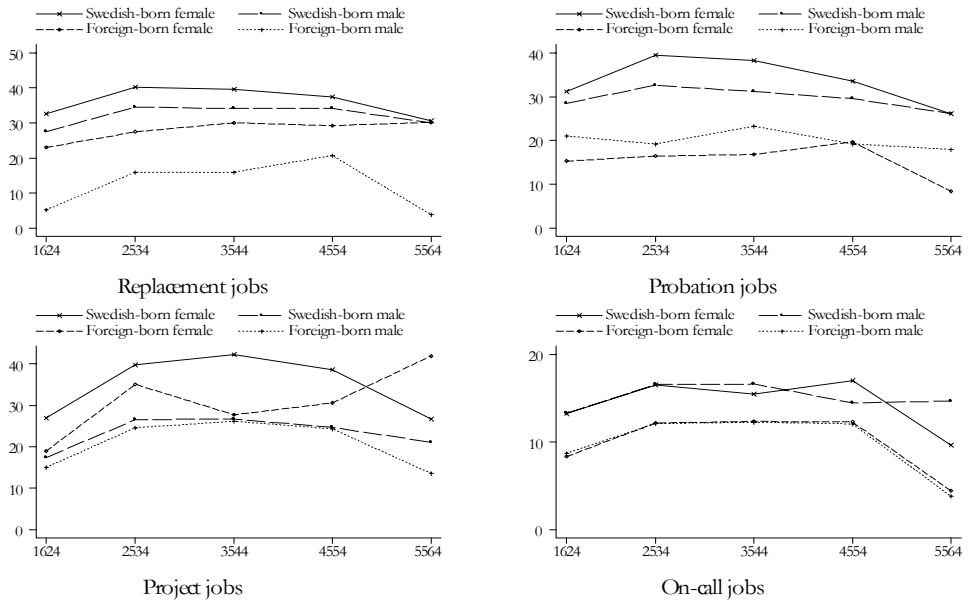
[1] The category "other temporary jobs" is included in the estimations, but we do not discuss the results for this category in this study due to the large degree of heterogeneity between the types of temporary jobs included in the category.

The calculation is further performed by age groups to show how the incidence of OJT might differ depending on a worker's age. For all ages, the incidence of selection is higher for open-ended job-holders, and the selection for replacement jobs is slightly higher than for project jobs and probation jobs. The, by far, lowest probability is found for on-call jobs.

How about differences between the genders and origin? First, there does not seem to exit a systematic difference between the genders with respect to the effect on selection to OJT, see *column 2* under *model 1*. The effect of holding a project job and being a female worker is significantly positive vis-à-vis male workers, while the effect of holding an on-call job is significantly negative. Otherwise, we do not find any differences between the genders, i.e. there is no consistent systematic difference between male and female temporary workers regarding the selection to OJT.

We have also interacted the effect of being born outside Sweden with all types of employment contracts, see *column 2* under *model 1*, Significant negative effects are found for all types of employment contracts (except for project temporary jobs where the effect is insignificant). Hence, independently of the type of employment contract, foreign-born workers are less likely to receive OJT when a number of different variables are controlled for. There thus seems to be a systematic difference between native Swedes and foreign-born workers. To further illuminate the gender/origin issue for temporary jobholders and the incidence of OJT, we have calculated the predicted probability, by age groups, of selection for different demographic groups in the labour market, see *figure 2*. The probabilities are estimated from a model that includes interaction variables between all types of jobs and gender/origin, see *model 2*. For all types of temporary jobs, foreign-born workers (regardless of gender) have a lower predicted selection to OJT, and the difference vis-à-vis Swedish-born workers is in some cases very large.

Figure 2 ***Average predicted probabilities (%) of selection to OJT for different temporary jobs, by gender, origin, and age groups.***

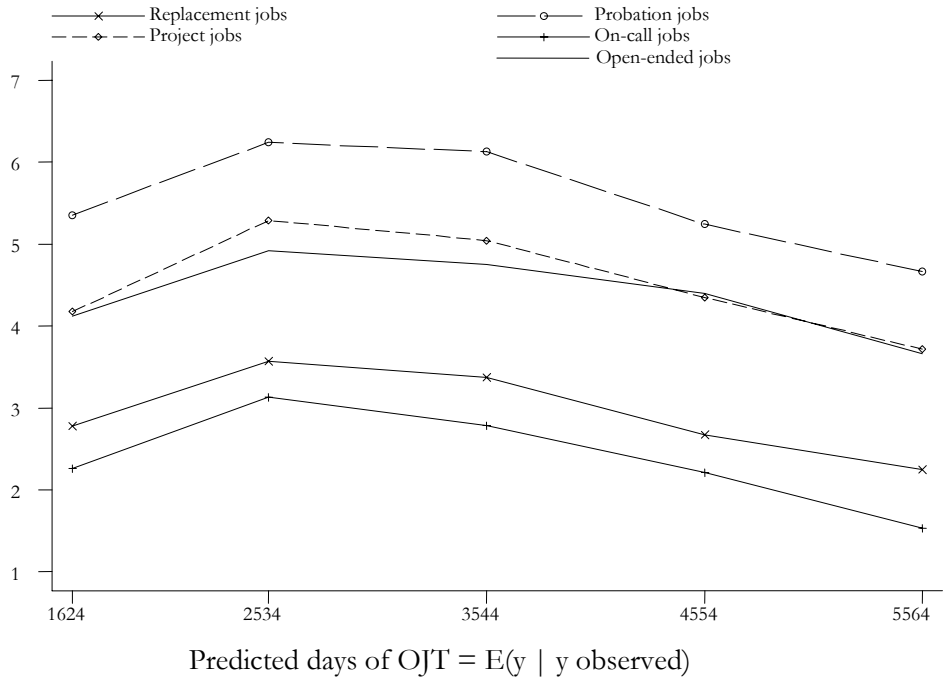


Note: The calculations are based on the mean values for characteristics other than gender, native origin, type of temporary job, and age groups. Note the different scale in the figures. Predicted from *model 2*.

The second step in the sample selection model analyses the intensity of OJT. The dependent variable is number of days of OJT, and the estimates are presented in *appendix A1*. If the incidence analysis showed a similar, and negative, pattern for all types of temporary jobs with regard to the probability of receiving OJT, the estimates with respect to the intensity of OJT give somewhat different results, see *column 1* under *model 1*. Holding a probation job (instead of an open-ended job) has a positive and significant effect on the intensity of training when we control for several other variables. This suggests that OJT as a screening device might indeed be one part of the explanation. In order to attract and find the most able workers, firms might use OJT in combination with a probation job so as to reveal as much information as possible. A second explanation is that the employer sees probationary jobs as equivalent to open-ended jobs in the sense that the general aim is that the probation job should change to an open-ended job after the probation period. A third explanation is that probation temporary jobs are a type of employment form that is seen by many employers (and perhaps workers) as a learning and training period, and thus employers offer probation temporary jobholders a large amount of training.

Regarding other temporary jobs, the effect of holding a replacement job or an on-call job is negative, and significant negative in the case of on-call jobs. Project jobs do not differ vis-à-vis open-ended jobs. The above results are also visualised in *figure 3*, where we have calculated the predicted number of days in OJT, conditioned on a positive outcome, by age groups. It is clear that the intensity of OJT is, for all age groups, higher for workers who hold probation jobs. For open-ended jobs and project jobs, the intensity of OJT is, by and large, the same. The lowest intensity of OJT is found for on-call workers.

Figure 3 ***Average predicted number of days in OJT conditioned on y being observed, by age groups***



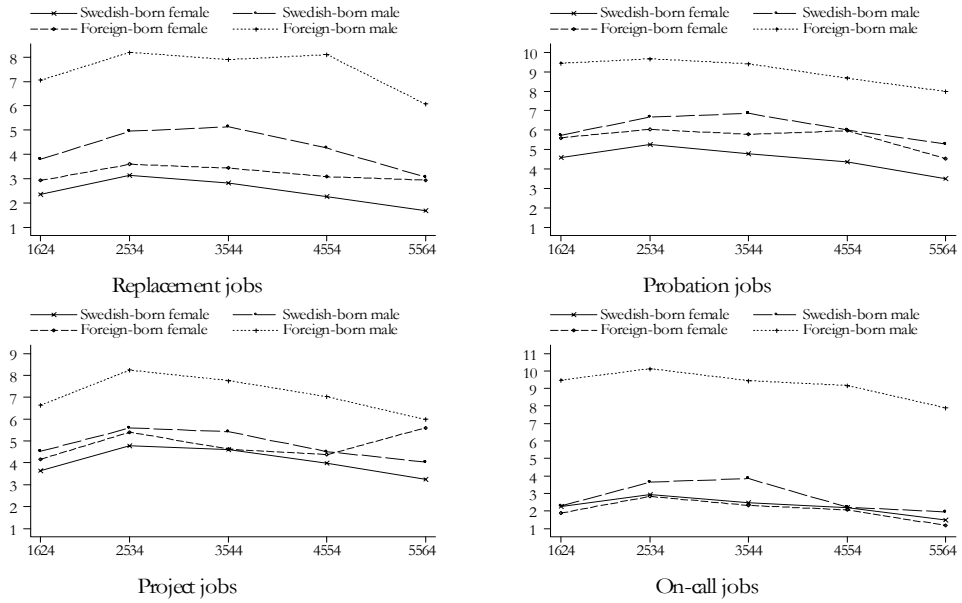
Note: The calculations are based on the mean values for characteristics other than type of temporary job and age groups. Predicted from *model 1*.

In the same way as for the incidence analysis we have interacted the gender and origin variables with different types of temporary jobs, see *column 1* under *model 1*. Being female, instead of male, reduces the amount of employer-provided training regardless of employment contract (open-ended jobs included), and the effect is statistically significant with regard to replacement jobs (and for open-ended jobs). Somewhat surprising results are found for the interaction variables between employment contracts and foreign-born workers. The selection model shows that being born outside Sweden significantly reduces the incidence of OJT, regardless of employment contract. However, for all types

of temporary jobs it is the case that, conditioned on that you receive OJT, being a foreign-born worker increases the intensity of OJT. The effect is significant for replacement jobs (and for open-ended jobs). The negative effect of being born outside Sweden, and holding a temporary job, with regard to the incidence of OJT is thus instead replaced by a positive effect concerning the intensity of OJT. The weakness is of course that this is conditional on a foreign-born worker receiving OJT in the first place.

In *figure 4* we have finally calculated the predicted number of days in OJT conditioned on a positive outcome, i.e. participation in OJT, separately for gender and origin. The predictions are made from *model 2*. The positive effect on the intensity of OJT from being a foreign-born worker is, apparently, restricted to foreign-born males only. The intensity of OJT is higher for foreign-born males who any type of temporary job, than for other groups of workers.

Figure 4 ***Average predicted number of days in OJT conditioned on y being observed, by age groups, gender, and origin.***



Note: The calculations are based on the mean values for characteristics other than gender, native origin, type of temporary job, and age groups. Note the different scales on the axis. Predicted from *model 2*.

5 CONCLUSION

The results we reach in this study regarding the incidence of OJT are indeed very discouraging for workers who hold any of the temporary jobs we are analysing. The probability of selection is much lower for all such jobs than it is for individuals who hold open-ended jobs, when a number of variables are controlled for. Thus, there is a clear negative trade-off between holding a temporary job and the probability of receiving OJT. The differences between different types of temporary jobs may arise due to the fact that some temporary jobs are well suited as screening-jobs while others are not. The results we reach in this study do, in some respects, also support this hypothesis. Probationary jobs differ the least from open-ended jobs. The largest differences are found for project jobs, and for on-call jobs.

One main focus has been to analyse differences between males and females, and between native Swedes and foreign-born workers, who hold temporary jobs. The results do not support a systematic difference between the genders, while there is a clear difference between native Swedes and foreign-born workers. For all types of temporary jobs it is the case that foreign-born workers have a lower probability of receiving employer-provided OJT when we control for a vast number of variables, and the estimated differences are in general rather large. There thus seems to be a systematic difference regarding the selection to OJT that depends on native origin. There is no particular theoretical reason, but the theories of discrimination, why foreign-born workers should have a lower probability of receiving OJT compared to native-born Swedes.

In a second step we analyse the intensity of OJT a worker receives. The results show that holding a probation job has a positive effect on the amount of training relative to open-ended jobs – given that a worker who holds this type of job receives OJT in the first place. This finding might also relate to the theoretical discussion of OJT as a screening tool, and perhaps also that OJT in combination with temporary jobs might be used to induce self-selection among workers. At the other extreme we find on-call jobs. Not only is the incidence of OJT very low for this employment form, it is also the case that given that an on-call worker receives OJT, the amount of OJT is less than for a comparable worker who holds an open-ended job. This further underlines the fact that on-call workers have a very poor situation, and clearly face a risk of remaining in a weak labour market position.

What about differences between demographic groups and the intensity of OJT? First of all, being female and holding a temporary job in general implies a lower amount of OJT compared to being male and holding a temporary job. This result holds for all types of temporary jobs even if the effect is only significant for replacement jobs. This finding thus implies that although women in some cases have a higher probability of receiving OJT compared to men, the intensity of OJT is in general less than for comparable males. For foreign-born workers the situation is the reverse. If a foreign-born worker receives OJT, the intensity of OJT is often higher than for Swedish-born workers. One interpretation of this finding might be that it is more important for foreign-born workers than for Swedish-born workers to really reveal any private information so as to show their knowledge, skills, motivation etc. to the employer. This might in turn induce the employer to offer members of the foreign-born group on-the-job training, and, on average, the number of days of OJT is then often higher than for comparable native Swedish workers. In other words, the screening process into the OJT-programme seems to be stricter for foreign-born workers than for native Swedes, but often with the outcome of more days in OJT.

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Appendix A1 ***Regression results: Heckman sample selection model. Dependent variable = number of days in OJT (OJT=1 in the binary selection model).***

	Model 1		**Model 2**		**Desc.**
	Heckman – OLS (days of OJT)	*Heckman – selection model (OJT=1)*	*Heckman – OLS (days of OJT)*	*Heckman – selection model (OJT=1)*	*Variable mean*
Replacement job	-0.586	-0.286			0.051
	(0.395)	(0.051)***			
Probation job	1.347	-0.123			0.012
	(0.595)**	(0.060)**			
Project job	0.326	-0.549			0.025
	(0.519)	(0.049)***			
On-call job	-1.151	-0.440			0.028
	(0.375)***	(0.070)***			
Other temp. job	-1.085	-0.525			0.037
	(0.352)***	(0.046)***			
Female × open-ended job	-0.194	0.009			0.429
	(0.091)**	(0.014)			
Female × replacement job	-1.445	0.047			0.038
	(0.417)***	(0.056)			
Female × probation job	-1.042	0.009			0.005
	(0.920)	(0.094)			
Female × project job	-0.970	0.228			0.011
	(0.632)	(0.070)***			
Female × on-call job	-0.323	-0.187			0.019
	(0.548)	(0.082)**			
Female × other temp. job	0.184	0.058			0.018
	(0.499)	(0.061)			
Foreign-born × open-ended job	0.486	-0.179			0.068
	(0.174)***	(0.023)***			
Foreign-born × replacement job	1.431	-0.294			0.006
	(0.624)**	(0.078)***			
Foreign-born × probation job	3.048	-0.362			0.002
	(2.026)	(0.142)**			
Foreign-born × project job	1.464	-0.138			0.003
	(1.114)	(0.115)			
Foreign-born × on-call job	2.290	-0.218			0.003
	(1.741)	(0.130)*			
Foreign-born × other temp. job	1.153	-0.281			0.003
	(1.166)	(0.114)**			
Swedish male × replacement job			-0.745	-0.265	0.013
			(0.393)*	(0.053)***	
Swedish male × probation job			1.257	-0.139	0.008
			(0.599)**	(0.062)**	
Swedish male × project job			0.233	-0.551	0.014
			(0.533)	(0.051)***	
Swedish male × on-call job			-1.505	-0.442	0.009
			(0.279)***	(0.072)***	
Swedish male × other temp. job			-1.171	-0.514	0.019
			(0.350)***	(0.046)***	
Swedish fem. × open-ended job			-0.162	0.011	0.391
			(0.093)*	(0.015)	
Swedish fem. × replacement job			-1.957	-0.245	0.034

		(0.178)***	(0.033)***	
Swedish fem. × probation job		0.475	-0.086	0.004
		(0.735)	(0.080)	
Swedish fem. × project job		-0.523	-0.317	0.009
		(0.396)	(0.057)***	
Swedish fem. × on-call job		-1.264	-0.625	0.017
		(0.363)***	(0.053)***	
Swedish fem. × other temp. job		-0.782	-0.477	0.017
		(0.402)*	(0.049)***	
Foreign fem. × open-ended job		0.125	-0.178	0.037
		(0.242)	(0.031)***	
Foreign fem. × replacement job		-1.163	-0.472	0.004
		(0.516)**	(0.085)***	
Foreign fem. × probation job		1.493	-0.674	0.001
		(2.776)	(0.226)***	
Foreign fem. × project job		0.042	-0.480	0.001
		(1.152)	(0.162)***	
Foreign fem. × on-call job		-1.342	-0.854	0.002
		(0.828)	(0.150)***	
Foreign fem. × other temp. job		-0.805	-0.632	0.002
		(0.876)	(0.148)***	
Foreign male × open-ended job		0.756	-0.167	0.031
		(0.246)***	(0.034)***	
Foreign male × replacement job		4.449	-0.529	0.002
		(2.525)*	(0.169)***	
Foreign male × probation job		4.093	-0.229	0.001
		(2.666)	(0.176)	
Foreign male × project job		2.633	-0.109	0.001
		(1.946)	(0.151)	
Foreign male × on-call job		7.634	-0.190	0.001
		(4.803)	(0.227)	
Foreign male × other temp. job		2.867	-0.417	0.002
		(2.454)	(0.169)**	
Observations	*77,229*	*77,229*		
Number of censored observations	*43,870*	*43,870*		
Log-Likelihood	*-153,846.23*	*-153,832.34*		
Wald-test of independent equations	*21.71*	*25.74*		
P-value (Wald-test)	*0.00*	*0.00*		

Robust standard errors in parentheses
** significant at 10%; ** significant at 5%; *** significant at 1%*

Note: Other variables included in the models are age groups, marital status, dependent children, educational levels, union membership and union organisations, employment sectors, working hours, socio-economic statuses, industry sectors, unemployment regions, and time indicators.