

Activation policies for young long-term unemployed people without work experience

An evaluation

Bart COCKX
Christian GÖBEL
Bruno VAN DER LINDEN

With the collaboration of

Bernard MASUY
Stéphane ROBIN

Summary and policy recommendations

Contract SSTC SO/10/039

entitled

“Individual employment histories in Belgium: an exploratory analysis”

1. Summary

Taking a population of young, underprivileged job-seekers, this research evaluated the impact of two activation policies on the integration into employment and on employment duration: the Recruitment Benefit Plan (PAE) and the Guaranteed Income Benefit (AGR).

The database

A great part of the research project was devoted to compiling a new database and to turning it into a useful database for econometric analysis. The data came from administrative sources: the labour market “Datawarehouse”, plus specific information from the Belgian National Employment Office (ONEM). The labour market Datawarehouse is the result of cooperation between the Banque Carrefour de la Sécurité Sociale (BCSS) and various Social Security institutions. By combining the individual¹ and longitudinal information from the above institutions, this represents a valuable source for analysing the employment histories of Belgian workers. It contains information about periods of unemployment with benefits (ONEM), paid employment (National Office for Social Security (ONSS) and the National Office for Social Security for Provincial and Local Government (ONSSAPL)), self-

¹ The Banque Carrefour de la Sécurité sociale (BCCS) uses strict rules to ensure that all data given to researchers is passed on anonymously.

employment (National Institute for Social Security of the Self-Employed (INASTI)) and inactivity (identified by absence from unemployment or employment)² and allows us to determine the time spent in the three market situations above. Moreover, the database provides us with information about some indicators of the quality of paid work, such as the paid wages, the volume of work expressed as a full-time equivalent and the extent of part-time work.

The initial sample contains information about 140,075 young people aged between 15 and 26, receiving (for at least one day) a waiting or transition benefit in 1998: these are unemployment benefits received after studying or during the period of compulsory part-time education (15-18 years old) respectively. The project envisaged following the employment histories of these young people from their presence in unemployment with benefits in 1998 until the end of 2002. The analysis reported in this document stops, however, at the end of 2000 since the data for 2001 and 2002 were not yet available when the research was accomplished.

In order to be able to start with a simpler analysis, which avoids certain acute methodological problems,³ we restricted the field of analysis and selected a sub-sample. This leaves 15,177 *young people aged between 18 and 26 receiving unemployment benefits for the first time in 1998 after 9 months waiting period and who have had no work experience since the end of their studies*. These are therefore fairly underprivileged young workers. We expect gradually to integrate the other individuals into subsequent research.

We confined ourselves to analysing the duration of the first period of unemployment with benefits and the first subsequent period of employment. A period of employment ends by a transition to unemployment or inactivity. The transfer from one employer to another, not interspersed by unemployment or inactivity, does not therefore interrupt the employment duration counter. Of course, some young people have several periods of employment and unemployment, but the inclusion of later periods in the first (employment and unemployment respectively) would have considerably complicated the analysis and had to be deferred to a subsequent study.

The quarter of the first transition into employment corresponds to the first quarter at the end of which the young person is for the first time listed as a salaried worker (in the ONSS or ONSSAPL databases) or as self-employed (in the INASTI database). *It should be noted that this definition does not take into account the time spent in employment outside this quarter*. It is therefore sufficient for the worker to spend one day in employment to be identified as “employed”. Moreover, there is nothing which prevents the worker from receiving unemployment benefits again, during this entry quarter. It was not possible in the present study to make a distinction by time worked during this quarter.

The notion of active policy in the database

The database enables us to distinguish two forms of active policy:

² The database does not allow us to identify workers without benefits looking for work, nor recipients of the Minimum Income Guarantee (Revenu d’Insertion/Leefloon) looking for work. These workers are incorporated into the inactive population. Since the number of such workers is relatively low, we believe that the error introduced by incorrect classification is negligible.

³ This is essentially the problem of the “initial conditions” explained in section 4.

1. Those implemented *outside paid employment*: these essentially concern participation in (vocational) training or a return to studying, as well as employment in Local Employment Agencies (“ALE/PWA”);
2. Those implemented *within paid employment*: these relate to all federal government schemes⁴ temporarily reducing the cost of labour (in other words, which end after a certain period of employment).

We analysed two active policies in employment: the Recruitment Benefit Plan (PAE) and the Guaranteed Income Benefit (AGR). We estimated their impacts on the duration of employment.

Objective of the study and method

We studied the impact of participation in the activation policies analysed, the PAE12 and AGR respectively. The impact was measured using two criteria: the length of the first period of employment (of the young people retained in the sample) and the pace of insertion into non-subsidised employment.

We analysed the duration on the basis of “transition rates” from unemployment and employment, also known as the “hazard” (rate). This hazard is linked to the probability of leaving a state, conditional on not having left this state previously. There exists a unique link between the distribution of the completed durations and the hazard. This is why, entirely conventionally, we analysed the determinants of the hazard rather than those of the observed duration. From this analysis, we can always deduce the effects of the determinants on the distribution of the duration.

In order to determine the impact of participation in an active labour market policy, we have to compare the hazard of a participant with that of a non-participant. If a participant differs from a non-participant in terms of characteristics, which may or may not be observed by the researcher, a simple comparison of both groups risks not only to reflect the impact of participation, but also that of the differences in terms of these characteristics. In order to take this “selection bias” into account, we estimated a transition model between the following situations:

1. from paid unemployment to the analysed active labour market policy;
2. from paid unemployment to any other job;
3. from employment to non-employment (= unemployment or inactivity).

We control for selection by including a number of determinants observed for these transitions. Moreover, in order to control for the selection bias based on unobserved characteristics, we simultaneously estimated the joint distribution of the unobserved determinants of these transitions.

⁴ Regional policy measures are not identified in the databases.

The Recruitment Benefit Plan (PAE12)

- *Characteristics*

The PAE is aimed chiefly at job-seekers and fully-compensated unemployed people who have been out of work for 6 months (if they are aged over 50), 12 months or 24 months. Employers who recruit these categories of workers can benefit from a temporary and regressive reduction in employer's Social Security contributions. We confined the analysis to the second category of workers out of work for longer than 12 months ("PAE12"). For this category, the reduction in contributions is 75% of a basic level for the first year, 50% for the second year and nothing from the third year onwards. Depending on the size of the employer, the basic level corresponds to 32.4% to 34% of the gross wage.

- *Predictions of economic theory*

The PAE is a form of temporary recruitment subsidy⁵. Economic theory predicts a different impact during and after the qualifying period. During the period it is granted, a subsidy promotes job creation. The effect increases with the amount of the subsidy and the more wage elastic are both, the supply of and the demand for employment. According to econometric studies, this elasticity is higher for poorly qualified work than for qualified work.

Even if the active labour market policy only boosts employment during the period of subsidisation, it could be worth promoting for a second reason. It would avert the loss of skills and working habits, as well as the gradual locking in inactivity. However, econometric studies have shown that this is generally not very important.

After the period of subsidisation, the impact of the recruitment subsidy is unclear. In general, as for the PAE, it is argued that the amount of the subsidy can be reduced along with the period of recruitment since the increase in productivity through learning on the job could more than offset the effects of this reduction. However, when the subsidy is targeted at the recruitment of underprivileged workers, the rate at which the subsidy decreases should be low, because econometric studies have concluded that the productivity increases very slowly within this target group.

Despite this slow rise in productivity, a temporary subsidy can enhance the integration into non-subsidised employment by reinforcing the effectiveness of the matching process between employers and employees. Subsidised employment would enable workers who would not be recruited without the subsidy to prove to the employer that they possess abilities which are only revealed on the job, in other words during the working relationship. In addition, even if the worker does not (or cannot)⁶ stay with the same company, recruitment to a subsidised job can *signal* to other employers the worker's motivation and/or his attachment to the labour market. These arguments are all the more plausible if subsidised employment is rationed and if the worker must exert search effort to be hired. It should be noted that this suggests that a measure producing positive effects, when developed on a small scale, could lose its impact when operated on a large scale (through disappearance of the signalling effect).

Reinforcing the quality of the matching brought about by a recruitment subsidy should not, however, necessarily stimulate the integration in the labour market. ; it could even reduce the chances of recruitment into a non-subsidised job. This will be the case, for example, if participation in a subsidised job indicates to employers that the worker is not productive.

⁵ Temporary in the sense that it is cancelled once the worker has been working for a certain length of time.

⁶ For example, in Switzerland, the employer can only recruit a subsidised worker for a limited period (see Gerfin *et al.*, 2002).

Evaluation studies have found that this risk is particularly high if the subsidised employment is within the protected circuit or the non-commercial sector.

Finally, we should point out that we have discussed the effect of a temporary subsidy on the recipients. The positive effect of the recruitment subsidy can come at the expense of other non-subsidised workers. This refers to what are known as the “substitution” and “displacement” effects. This study does not allow us to evaluate the impact of the latter effects.

- *The results of other empirical studies*

In general, the researchers conclude that temporary subsidies lead to an increase in the hiring rate of recipients into a *non*-subsidised job, in so far as the temporary subsidies are reserved for jobs in the “normal” economic circuit and provided the subsidy does not last. A temporary subsidy therefore seems effective because it reduces the costs faced by the employer during the process of worker selection, not because it allows for progressive reinforcement of the worker’s productivity through work experience. We should also note that it is usually found that specific programmes for young people have no impact on employment or even have detrimental effects. The “New Deal” programme for young unemployed people in the United Kingdom is one of the few programmes which seems to facilitate entry into employment. However, whether this effect persists in the longer term still has to be examined.

- *The results of our analysis*

The PAE12 is apparently aimed primarily at qualified workers among the young people sampled. A young man with only an elementary education is 61% less likely to benefit from the Plan than a young man with a higher secondary education. A woman with a secondary education qualification is actually five times more likely to find a subsidised job than a woman with at most an elementary education qualification. Young people who have completed lower secondary education have virtually no chance. In addition, a higher education further significantly increases, up to 79%, the probability of participation in the activation policy.

Young people in Brussels clearly benefit proportionately more from the Plan than their Walloon counterparts. Young Flemish men, but not women, on the other hand, participate considerably less.

Taking into account the 9 months of the waiting period, the young person cannot benefit from the PAE12 until the 2^d quarter after entry into paid unemployment. However, the rate of access to the PAE12 seems to be concentrated in the 5th quarter after the end of the waiting period. At this point, the chance increases by a factor of almost 2.5 for men and a factor greater than 3 for women. This therefore gives the impression that employers who recruit do not know that the waiting period can be taken into account when calculating the duration. From the 9^h quarter onwards, the rate of access to the PAE12 is virtually reduced to zero, which reflects the fact that employers are entitled to greater reductions after an unemployed period of longer than 24 months. We must remember that, given the limited length of the observation period, we did analyse the effect of that part of the PAE policy targeted at people out of work for over two years.

We find that the exit rate from employment falls sharply and, for men, significantly during the first year of subsidy: -37% for men and -24% for women. However, after the first year, the effect is already much weaker for women (-6%) and even becomes very positive for men (+35%). The latter effect therefore demonstrates an increase in the male exit rate from employment to non-employment. Finally, during the period after the end of the subsidy, the dismissal rate rises for both sexes: +60% among men but only +14% among women. It should be noted that only the first and the last impacts mentioned are statistically significantly different from zero and then only for men.

Using simulations, we find that the impact of the PAE12 is very heterogeneous among the recipients, but that it increases the duration of employment for most categories of recipients: it increases the duration for 74% of male recipients and as many as 94% of female recipients. The median effect is 3.2 months, both for men and women.

Although our model was not designed to *study the extent to which participation in the PAE12 accelerates insertion for recipients*, the particular form of the unobserved distribution of heterogeneity nonetheless allows some conclusions to be drawn. Since the distribution of heterogeneity has been estimated without great accuracy and it is by no means certain that its specification is correct, *we must however stress that these results are subject to confirmation by a subsequent analysis.*

We can conclude, from the distribution of unobserved heterogeneity, that some young people would never have escaped unemployment if they had not been able to benefit from the PAE12. Moreover, we deduce from our estimates that this fact is true for the vast majority of recipients. It relates to 96% of male recipients and 80% of female recipients. *The Recruitment Benefit Plan therefore seems to have created job opportunities for workers who, despite qualifications that are sometimes higher than those of non-recipients, would never have been recruited otherwise!*

However, not all recipients make the transition into non-subsidised employment. If we multiply the aforementioned fractions by the share of recipients who make the transition into non-subsidised employment immediately after the period when the subsidy is granted within the context of the PAE12, the insertion rate falls sharply, but still remains high. *The PAE12 would seem to accelerate transition into non-subsidised employment for at least 37% of men and 32% of women.*

How can we interpret all these results? First, they indicate that the *Recruitment Benefit Plan only extends the length of periods which, without the subsidy, would have been fairly short.* The plan shortens the longer periods, perhaps because employers prefer to replace them with other workers who are newly eligible for the Plan subsidy. For the population studied, the share of short employment periods is high: the exit rate from employment is particularly high during the first three quarters (cf. Figures 14 and 15). This explains why the extension effect on the period of employment is dominant: most of the recipients have their periods of employment extended.

The increase in the exit rate from employment even after the end of the first year (especially for men) shows that the *productivity growth rate is too slow to offset the fall in the level of the subsidy.* It also suggests that a more lasting integration into employment requires a structural reduction in the cost of labour. *It does not alter the fact that the Plan promotes the insertion into non-subsidised employment of a large group of workers, who would have remained unemployed without the Plan:* this is the case for at least 37% of male recipients and 32% of female recipients. The rise in the rate of return to non-employment after the first year does

however suggest that this insertion is achieved rather by an increase in the effectiveness of the matching process between job-seekers and employers: it encourages the former to enter into a working relationship with populations that are generally less privileged and the temporary recruitment period enables information to be revealed about the qualities of the worker. Since this matching is carried out at the beginning of the recruitment period, a subsidy beyond this period would not therefore be effective for this group.

The results therefore seem to communicate an *ambiguous message* in terms of policy recommendations. On the one hand, we can identify a group of workers who need a more permanent reduction in the cost of labour in order to achieve more sustainable insertion into the labour market. On the other hand, we can distinguish a group for whom the temporary subsidy is effective provided the allocation period is relatively short. This contradiction is only *apparent* because the participants do not form a homogenous group. The first group certainly involves the least productive workers. They would probably have found work on a more sustainable basis if their employers had been able to benefit from a structural reduction in employer's contributions. The second group probably involves more productive workers who, for one reason or another, had lapsed into unemployment and who were given an insertion opportunity thanks to the Recruitment Benefit Plan. A shorter subsidy period would however probably have produced the same effects and would therefore have been more effective. In principle, we could test this interpretation since it implies a different impact depending on worker productivity: we would have to check whether the extent of the impact of the PAE12 changes in a positive sense as a function of observed productivity indicators, such as the level of education. As we have already indicated, however, the sample of beneficiaries of the Plan is too small to carry out this type of analysis with sufficient statistical precision. This question should therefore be taken up in a subsequent study.

The Guaranteed Income Benefit (AGR)

- *Characteristics*

A full-time unemployed worker entitled to benefits and accepting a part-time job with a contract for at least one-third time and a maximum of 80% of full-time can receive a wage supplement, the AGR, provided he continues to look for a full-time and has a monthly income below the minimum wage. The level of the supplement depends on the family category (cohabiting with or without dependents or single person) to which he belongs and is reduced at the same rate as the net income from part-time work increases. Moreover, this amount has a ceiling of 90% of the level of benefits paid to a fully unemployed person.

- *Predictions of economic theory*

Since the AGR is a wage subsidy, it should boost employment during the period for which it is granted, all the more so if both the labour supply (or the wage setting curve) and the labour demand are wage-elastic. If the same market segment contains both non-subsidised and subsidised workers, the elasticity of the wage setting curve declines and the impact on employment falls. This elasticity declines since only one wage is being negotiated in this segment. Non-subsidised workers then resist lowering this wage without compensation.

A second factor also reduces the effect of the AGR on employment. Provided the potential recipients of the AGR are hired at the minimum wage or close to this level, employment is constrained by a lack of demand not supply of work. Since the gross earnings cannot fall

below the minimum, the AGR can only raise the earnings of recipients, rather than lower the wage cost. Consequently, the AGR cannot affect demand.

The above analysis ignores one aspect, however. Even in the absence of an increase in the demand (and supply) for work, a supplement given to part-time workers can accelerate insertion into employment by making it more attractive. Within the context of a job-search model, it can be shown that this type of supplement intensifies part-time job-searching more than it reduces the efforts to find a full-time job.

Once the worker has been hired and is receiving the AGR, he risks becoming trapped in part-time work. Even if he has to apply for a full-time job, an AGR recipient has no financial incentive to look for a better-paid job. The benefit is effectively reduced by one euro for every additional euro of earnings from work. Moreover, the AGR is especially aimed at poorly qualified workers for whom progress in productivity and earnings is slow.

By contrast, part-time work subsidised by the AGR – as with temporarily subsidised employment – can signal the “good” qualities of workers for employers and thus reinforce the effectiveness of the matching process and, beyond it, the insertion rate. This advantage is however only present in the initial phase of employment and does not therefore justify granting the subsidy beyond a few months. On the other hand, participation can also signal qualities which are undesirable to employers and thus slow down the rate of integration into the labour market. Theoretical analysis cannot therefore conclude upon the sign of the impact of the AGR on employment.

- *The results of other empirical studies*

Relatively few studies have been performed regarding systems of income supplements granted to part-time workers. One Canadian study does confirm that such supplements can accelerate departure from unemployment: the entry rate into part-time jobs rises more than the entry rate into full-time jobs falls. However, the effects are fairly small.

An analysis of the system of “reduced activity” in France suggests that an income supplement for part-time workers can facilitate further insertion into the market, but the effects are complex and vary depending on gender. By contrast, the literature (mainly American) about tax credits, the recipients of which are often part-time workers, concludes that wage increases are too slow to allow for a significant transition into non-subsidised employment.

- *The results of our analysis*

First, it should be noted that we confined our analysis to women because too few men benefit from the AGR. An analysis of the male population is virtually pointless from a statistical point of view.

As with the PAE12, young women originally from countries outside the EU have a much lower chance of benefiting from the AGR than Belgian women (the gap is more than 70%). Few other characteristics are significantly correlated with the transition to the AGR. We were not even able to reject the hypothesis that the transition rate to the AGR does not vary as a function of the length of unemployment. The fact that the length of unemployment is not an eligibility criterion for the AGR can explain this result.

The effects of the AGR on the transition from employment to non-employment tend to lean in the same direction as those of the PAE12, but they are greater in terms of absolute value. During the period of allocation, a recipient of the AGR seems to be firmly locked into subsidised employment: the transition rate to non-employment falls by 37%. This can be explained by the financial incentives which encourage recipients to remain in poorly paid part-time employment: we should remember that the AGR is reduced by one euro per euro of additional income from work. On the other hand, once the female worker has switched from a job which grants the AGR to a non-subsidised job, the chances of dismissal increase significantly: the transition rate to non-employment is almost twice what it would be without participation. This again shows that the rate of productivity growth during the period of subsidised employment is too low to compensate for cancellation of the subsidy. However, we may wonder about the conditions under which and the reasons why the recipient left subsidised employment for a non-subsidised job. We have put forward some theories but an answer to these questions requires additional research.

Approximately one quarter of female recipients would never have left unemployment without the AGR. This proportion is much smaller than the 80% proportion with respect to female recipients of the PAE12. It indicates that many more recipients of the AGR would have ceased to be unemployed in any event. In our view, this gap between the AGR and the PAE12 indicates that unemployment in the market segment of poorly qualified workers can be explained chiefly by a lack of demand rather than a lack of incentives. Why is this? The analysis sample only contains underprivileged workers. As a result, many of them will be hired on wages close to the minimum. Since the AGR is a supplement to the net wage, it does not allow the wage cost to be reduced below this minimum. It can therefore only serve to increase the net wage and therefore to reduce the replacement rate. If unemployment in this segment can be explained by a lack of incentives, it should generate at least as many new insertions as a reduction in the cost of labour. However, since we observe that insertion is increasingly stimulated by the PAE12, we conclude that unemployment must chiefly be the consequence of insufficient demand for manpower in this segment of the labour market.

Although the AGR seems less effective than the PAE12 in terms of insertion, exit after this subsidised employment is proportionately greater than for the PAE12 from non-subsidised employment: half of recipients of the AGR switch to a non-subsidised job as opposed to only 40% of recipients of the PAE12. However, this gap could be explained by a selection bias: recipients of the AGR are probably on average more productive than participants in the PAE12 because they would have been more likely than the latter to have found a job even without the subsidy.

2. Policy recommendations

We have repeatedly emphasised that the analysis presented here is preliminary and that it requires several extensions for its results to be confirmed. In addition, our analysis involved underprivileged young people and the results cannot therefore automatically be extrapolated to other target groups. Subject to this confirmation, we essentially put forward three policy recommendations.

First, in contrast to previous empirical studies, we found a certain negative dependency between the exit rate and the length of unemployment, at least during the first 3 paid quarters

of unemployment.⁷ In the theoretical analysis, we found that temporary recruitment programmes can be justified by the presence of a negative dependency between the exit rate from unemployment to employment and the duration of unemployment. In fact, such programmes can bring about an updating of skills and the return of lost “working habits”. The majority of the young people however do not benefit from the PAE12 until 5 quarters after the end of the waiting period. After this time, dependency on the duration is negligible and the recruitment subsidy does not therefore generally prevent a decline into unemployment. Consequently, the effectiveness of the PAE12 could be reinforced if the young people are entitled to benefit more quickly from the PAE12. However, without reinforced targeting, it is plausible that bringing forward the beginning of the period of eligibility for the subsidy could increase the deadweight loss.⁸ Before bringing forward entry into comparable existing programmes, such as ACTIVA, which replaces the PAE, it is therefore important to study the extent to which these windfall effects are significant and can be eliminated by appropriate targeting.

Secondly, the clearly superior performance of the Recruitment Benefit Plan over the Guaranteed Income Benefit in terms of the job finding rate confirms that the problem of unemployment among poorly qualified workers is mainly a problem of the lack of demand for work and not primarily a lack of incentives. Consequently, it is important to reduce employer’s contributions as a priority in this segment of the labour market and not to favour formulae such as the AGR or the “tax credit bonus”, as mentioned in the present government agreement.

Thirdly, we conclude from this research that a dual system in which a reduction in permanent employer’s contributions targeted at poorly qualified workers coexists with a temporary recruitment subsidy can be effective provided the period when this latter subsidy is granted is not too long. We estimate that this temporary subsidy, like that in the Recruitment Benefit Plan, offers a new insertion opportunity to certain relatively productive workers who, for one reason or another, have gradually been locked into unemployment. The fact that these workers do not find work without the subsidy is linked more to information asymmetry and to the ineffectiveness of the matching process than to insufficient productivity on the part of these workers: the employer does not recruit them without the subsidy because their long period of inactivity is a statistical (or general) indication of low productivity. If the insertion problem is linked to information asymmetry, this problem should be resolved in the initial recruitment phase and does not therefore justify subsidies lasting as long as those in the Recruitment Benefit Plan or those in the ACTIVA⁹ plan. A subsidy lasting a few months should be sufficient.

However, not all recipients of the PAE are productive enough to remain in work without a subsidy. We have observed that the integration in the labour market was particularly boosted during the first year the subsidy was allocated. After the second year, when the level of the subsidy falls by one third, the rate for returning to non-employment increases considerably. This observation proves that, for a low-productivity group of recipients, the productivity growth rate is too low to make up for the fall in the level of the subsidy. For this group, insertion can only be permanently guaranteed by a structural reduction in employer’s contributions.

⁷ Which corresponds to the period from the 4th or the 6th quarter after the beginning of the waiting period.

⁸ A deadweight loss refers to a situation where the worker is hired even without the subsidy.

⁹ It is important to note that the “work benefit” within the context of the ACTIVA plan is paid as an integral part of the salary and not as a supplement to this salary, as is the case in the AGR. The work benefit can thus serve to bring down the labour cost where the minimum wage is paid, which is not possible to the same extent for the AGR.

Based on the results of our analysis, our recommendations – at least for young people¹⁰ - are therefore to reduce the period of allocation of the subsidies within ACTIVA by a few months. The funds thus released should be redirected towards permanently reducing the cost of labour for workers with poor insertion chances. This reduction can take the form of a structural reduction in employer's contributions to low salaries, as we justified and explained in more detail in Cockx *et al.*, 2003.

¹⁰ At present, a clear split (distinct separation) exists in the amount of the benefit to which one is entitled, between those aged below and over 45. We are afraid that the use of age as an eligibility criterion reinforces the effects of substitutions between age classes at the expense of net job creation. Moreover, it would be more effective to separate eligible and ineligible populations by a more gradual increase in the benefit.