What does state-subsidized outsourcing of domestic work do for women’s employment? The Belgian service voucher scheme

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Abstract
The European Commission, as well as national governments and national lobby groups, have actively promoted the extension of the domestic service sector since the 1990s in response to the prospect of structurally sluggish employment growth among the least skilled and the perceived need for more social investment. The Belgian service voucher scheme, the most heavily subsidized scheme of this type in the European context, yielded growing numbers of domestic service employees, users and employing companies since its enactment in January 2004. The purpose of this study is to identify whether this scheme was successful in increasing employment rates among low-skilled women in Belgium and to assess whether its employment effects have extended beyond this group of women and affected the employment rates of medium-skilled and highly skilled women. Using time-series analyses and difference-in-differences models for the period ranging from the first quarter of 1999 until the second quarter of 2014, our results demonstrate that the scheme had both short-term and long-term positive effects on employment rates of low-skilled women. However, a reversal in their employment rates during the economic recession is also found, which brought their employment rates to a nadir in 2008. We further found that the scheme’s impact extended beyond the employments of low-skilled women to positively affect the employment rates of the highly skilled women.

Keywords
Belgium, outsourcing, service voucher, social investment, time-series, women’s employment

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Introduction

While domestic work as a form of employment had progressively disappeared in the majority of European countries during the course of the 20th century, it has been on the increase everywhere in Europe over the past decade or so (Morel and Carbonnier, 2015). The supply of domestic workers and the demand for domestic work are partially affected by migration policies. According to the International Labour Office (ILO, 2015) in 2013, approximately 55 percent of all domestic workers in northern, southern and western Europe were migrants. However, this trend is also driven by other types of policies. According to Morel (2015), the European Commission, as well as national governments and national lobby groups, have actively promoted the extension of the domestic service sector since the 1990s in response to the prospect of structurally sluggish employment growth among the least skilled and the perceived need for more ‘social investment’. Many European countries have set up schemes to subsidize the demand for domestic services, particularly for childcare and eldercare, via the introduction of cash-for-care schemes, vouchers or different socio-fiscal measures such as social contribution exemptions and tax rebates. However, some countries have gone further in that they also subsidize non-care-related domestic services such as cleaning and ironing (Morel, 2015).

It is likely that no country has promoted the extension of the domestic service sector with more fervour than Belgium. The Belgian service voucher scheme (SVS hereafter), in its current form, has been in place since January 2004. Consumers use the service vouchers to pay for a limited but high-volume range of domestic services that are deemed to have been priced out of the regular market (e.g. cleaning, washing and ironing). The principal objective of the scheme is to raise employment levels among less-skilled workers and to reduce informal economy activity. Another objective is to help working people, the intended users of the scheme, to achieve a better work–life balance, potentially also increasing their effective labour supply and productivity.

Within the European context, the Belgian SVS is likely the most heavily subsidized scheme of its kind: more than 70 percent of the cost of the services rendered to individual consumers is publicly funded (Marx and Vandelannoote, 2015). The growth in the number of users and people employed through the scheme has been nothing short of explosive. However, we know from the extensive literature on subsidized employment schemes that gross take-up does not equal net employment, and deadweight and substitution effects need to be accounted for (Kluve, 2010; Marx, 2001). Deadweight losses will occur when subsidies are paid for hiring workers that would have been hired anyway.

This contribution asks, ‘What has the Belgian SVS really done for employment, especially among the individuals it is designed to primarily affect (that is, low-skilled women)?’

Using macro-level indicators of the employment rates of Belgian women by educational level together with other measures, we aim to identify the effect of the Belgian SVS on the employment rates of women using time-series analyses and difference-in-differences models. This work represents the first econometric estimation of the intervention effect of the SVS in Belgium and elsewhere.

Domestic services, social investment and the service sector trilemma

A number of European countries have introduced measures specifically designed to increase domestic services employment (Morel, 2015). France was the forerunner of the SVS in the European context. According to Windebank (2007), starting the beginning of the 1990s successive French governments have established schemes aimed at encouraging the outsourcing of domestic work. These schemes have evolved to the Chèque Emploi-Service Universel, which was introduced in January 2006. In 1997, the German federal government also issued the SVS (‘Haushaltsscheck’), which did not demonstrate the expected growth (Jaehrling, 2003). The SVS was later adopted by Belgium (the ‘Dienstencheques’) in 2004 and by Austria (the ‘Dienstleistungsscheck’) in June 2005. Overall, little remains known about the effects of such schemes on employment. A much larger body of literature on employment subsidies in general consistently suggests that deadweight and substitution effects tend to be quite substantial, rendering net
employment effects far smaller than gross take-up figures suggest (e.g. Kluve, 2010; Marx, 2001). These empirical evaluation studies have employed a range of methodological approaches, including employers’ surveys, time-series analysis and (quasi-)experimental techniques. Subsidized domestic services have emerged because good jobs at decent wages for less-skilled people are becoming structurally scarcer in advanced economies. The vast literature on the alleged impact of intensifying global competition, outsourcing, technological change and other drivers of demand shifts in skill-biased labour in rich economies is impossible to summarize here. However, the idea is well illustrated by Esping-Andersen (1999) who wrote,

As servicing becomes the life-blood of our existence, privilege is bestowed upon the knowledge strata. Yet, there are huge areas of servicing which are labour intensive and low-skilled. The lower end of servicing society is where we must pin our hopes for mass-employment. Unfortunately, because of their sluggish productivity, low-end service jobs are threatened by a long-term ‘cost-disease’ problem. Tertiary employment is therefore likely to stagnate unless wages slide downwards. (p. 96)

Thus, the SVS was seen as a way to ensure that service sector job growth would benefit less-skilled workers without having to accept higher wage inequality (i.e. particularly wage erosion at the bottom end of the earning distribution).

The Belgian SVS, and other such schemes, are also presented as part of a much-desired drive towards more ‘social investment’ aimed at bringing about more structural improvements in the plight of the poor yet at the same time responding to new social needs among the highly skilled (Morel et al., 2012; Nolan, 2013). The social investment strategy intends to sustain the knowledge-based economy, which rests on a skilled and flexible labour force (Morel et al., 2012). Within the social investment strategy, services are a key instrument. This investment through services should improve productivity and employment levels by creating a healthy, well-educated and more productive and mobile workforce (European Commission, 2013). The underlying idea is that benefits will be found at two levels, notably an increase in economic efficiency and employment among the highly skilled, as well as a reduction in labour market exclusion and poverty among the low skilled.

The Belgian scheme

The Belgian SVS came into existence in January 2004. It was implemented under the second Verhofstadt cabinet, a coalition of the Socialist and Liberal Parties on both sides of the language divide. There have been predecessor schemes, but none were as ambitious and far ranging as the scheme implemented in 2004.

A first objective of the scheme was the creation of extra jobs, particularly for people with no or little formal qualifications. A second objective was to reduce informal sector activities; domestic work was almost exclusively performed in the informal sector. While work without a written contract is not necessarily illegal, in Belgium, as in other countries, informal domestic workers are badly protected and they generally do not accrue social security benefits (Van Walsum, 2011). If they perform informal work while receiving benefits, they are liable to be sanctioned. A third objective of the scheme was to contribute to the users’ work–life balance. Service vouchers are used to pay for a clearly defined set of domestic activities such as cleaning, ironing, preparing food and doing occasional sewing work, shopping and supervised transport of persons with reduced mobility. This outsourcing opens up more time for leisure and childcare, and possible effects are that users would be able to put in more paid hours than they would otherwise or join the labour force.

Each adult living in Belgium can buy up to 500 service vouchers per year. Persons living in the same household can buy a maximum of 1000 vouchers per year. The first 400 vouchers each cost €9, and vouchers purchased thereafter cost €10. Users buy the service vouchers from a private contractor called Sodexo. Each user is eligible for a 30 percent personal income tax credit, which reduces the real consumer cost per voucher to €6.3 for the first 400 vouchers and €7 for the remaining vouchers.1

The Service Voucher is accordingly subsidized in two ways. The government subsidizes the issuing
company (Sodexo) €13.04 per service voucher, or per hour worked. Second, the consumer can deduct 30 percent of the price of the service voucher from his or her personal income tax. This deduction costs the government €2.7 per service voucher. Adding up both elements, the government subsidizes €15.74 per service voucher. Since the total cost of each voucher is €22.04, the government subsidizes 71.4 percent of the total cost of the scheme.

When formally contracted as SVS employee, the wages and labour conditions of the domestic helper are set in a collective agreement that is generally binding. SVS workers receive a gross wage of minimum €10.28 per hour worked, which is paid by the service sector company employing the worker. In reality, this wage can be higher depending on the terms of the contract as negotiated between the employer and employee. In 2012, the average gross wage of SVS employees was equal to €10.82 per hour (Idea Consult, 2013: 45). Therefore, a SVS worker working full time earns a wage that is slightly above the minimum wage.

A third party – the SVS company – formally hires the employee, not the individual consumer. In 2012, there were 2753 active SVS companies with a total of 151,000 employees. Approximately 65 percent of employees were working for for-profit organizations (e.g. private companies, temp agencies or private persons). The remaining 35 percent of employees were working for non-profit organizations.

### Development of the scheme

As can be seen in Table 1, in 2012, there were nearly 900,000 active users, who collectively redeemed 114 million service vouchers (Rijksdienst voor Arbeidsvoorziening (RVA), 2013: 109–10). Approximately one in five Belgian households used service vouchers at least once in 2012.

Service vouchers are predominantly used by two-adult households in which each individual is working full time. A second group of users, which is expanding, includes individuals above the age of 65. The majority of users are highly educated (65% have a higher-education degree) and relatively high up in the income distribution.

Almost all of the employees are females (97%). The majority of them (56%) have attained no more than a lower secondary education, although 39 percent of employees possess a higher secondary degree. There has been an increasing inflow of non-Belgian nationals – from 24 percent in 2007 to 27 percent in 2011 – mostly from Poland, Romania and Portugal.

The Belgian SVS was originally targeted to employ 20,000 people. With more than 150,000 people employed in 2012, the scheme has vastly exceeded expectations. In 2012, 64 percent of employees worked 19–37 hours/week, and 24 percent of employees worked fewer than 19 hours/week. With employees working on average 19 hours/week, the SVS in 2012 accounted for 55,000–75,000 full-time-equivalent jobs.

The profile of the people working in the scheme has changed markedly in recent years. In 2007, 46 percent of the persons entering SVS employment had come out of unemployment or informal work, and 45 percent of the persons came out of another paid job. In 2011, these numbers changed to 37 and 50 percent, respectively (Idea Consult, 2012: 46–50). This trend can be plausibly linked to the fact that there is heavy competition among SVS companies for business among demanding consumers.

The data also show that employees are remaining increasingly longer in the scheme; 70 percent of employees in 2011 had been active in the scheme for more than 3 years.

There is also some evidence that SVS work is displacing work already performed in the regular labour

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of users</th>
<th>Number of employees</th>
<th>Number of employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>98,814</td>
<td>15,077</td>
<td>504</td>
</tr>
<tr>
<td>2005</td>
<td>190,734</td>
<td>28,933</td>
<td>840</td>
</tr>
<tr>
<td>2006</td>
<td>316,101</td>
<td>61,759</td>
<td>1162</td>
</tr>
<tr>
<td>2007</td>
<td>449,626</td>
<td>87,152</td>
<td>1504</td>
</tr>
<tr>
<td>2008</td>
<td>557,482</td>
<td>103,437</td>
<td>1892</td>
</tr>
<tr>
<td>2009</td>
<td>665,884</td>
<td>120,324</td>
<td>2292</td>
</tr>
<tr>
<td>2010</td>
<td>760,702</td>
<td>136,915</td>
<td>2576</td>
</tr>
<tr>
<td>2011</td>
<td>834,959</td>
<td>149,827</td>
<td>2708</td>
</tr>
<tr>
<td>2012</td>
<td>899,558</td>
<td>151,137</td>
<td>2753</td>
</tr>
</tbody>
</table>

market. In 2011, nearly 1 in 10 SVS employees admitted to performing non-allowed activities, including childcare, care of elderly or disabled persons, and repair work (Idea Consult, 2012: 58). This fact implies that SVS workers sometimes do work that is normally performed in the regular labour market by skilled workers at higher wages.

**Empirical strategy**

The purpose of this study was to identify whether there was a policy intervention effect of the scheme on the employment rates of women in Belgium. Although the policy was intended to increase the employment rates of low-skilled persons, its employment effects may have extended beyond this group of women and affected the employment rates of medium-skilled and highly skilled women. This extended effect was done either by extending the employment opportunities of medium-skilled and highly skilled women (e.g. in the employing companies) or by allowing them to better reconcile work and family life by hiring the services of a domestic helper.

Our macro analyses are divided into two parts. First, we try to assess the timing of the policy’s effect using two different time-series analyses – an intervention analysis and a structural break analysis. In the second part, we try to better identify the policy’s effect and estimate its magnitude using the difference-in-differences approach. We conducted the analyses using STATA software.

**Data and variables**

**Policy measures**

Three quarterly policy measures were derived for our analysis based on the annual reports of Idea Consult (2005–2013) for the period 2004q1–2012q4:

- **Number of users.** The number of people purchasing the service vouchers.
- **Number of employees.** The number of employees working under the SVS.
- **Policy intervention period.** This variable indicates whether the SVS existed in a certain quarter.

Starting in the first quarter of 2004, all of the quarters receive a value of 1. The quarters 1999q1–2003q4 receive a value of 0.

The two continuous policy measures were originally measured on an annual basis. These two variables were then converted into quarterly variables by assuming a linear growth within each year.

The following quarterly macro-level dependent variables and control variables were extracted from the Eurostat’s online database (European Commission, 2015) and from the National Bank of Belgium for the period 1999q1–2014q2:

**Dependent variables**

- Employment rates (%) of low-skilled women, aged 25–64. Women with less than primary, primary and lower secondary education.
- Employment rates (%) of highly skilled women, aged 25–64. Women with short-cycle tertiary education, bachelor or equivalent, master or equivalent and doctoral or equivalent level.

**Control variables**

Consistent with Barone and Mocetti (2011), who also analysed the female labour supply on the macro level, we included the following macro-level measures in our analyses to control for possible alternative explanations to the change in women’s employment rates over time:

- **Gross domestic product.** At market prices, in millions of euro, seasonally adjusted and adjusted by working days.
- **Real minimum wages.** Amounts converted to 2013 constant prices, at US dollar purchasing power parity.
- **Female migration.** Inflow of female foreign population into Belgium.
We used the gross domestic product to capture the growth in the Belgian economy from quarter to quarter. Minimum wage was intended to capture both the demand for work by employees and the supply of work by employers, particularly in the low-skill labour market. Controlling for female migration is important since migrant women might be a competitive or a supplementary workforce (Venturini and Villosio, 2006) and might positively affect the employment rates of the native highly skilled women if they work in services that are close substitutes to household production (Barone and Mocetti, 2011). The minimum wages and the female migration variables were originally measured on an annual basis and were converted into quarterly variables.

**Results**

**The timing of the policy’s effect**

In this part of our analyses, we try to assess whether the enactment of the SVS had only a one-time shock on the employment rates of women, or whether its effect has extended to a longer period. Using an intervention analysis, we measure whether the change in the level of the employment rates is significantly higher or lower in the period after the quarter of interest compared with the period prior to that quarter. This is done separately for each quarter between the first quarter of 2003 until the fourth quarter of 2009. The results of this analysis are presented in Figure 1. In quarters in which the coefficient is positive and significant, the average employment rates of women after this quarter were higher compared to the average rates prior to this quarter. If there was a policy effect on women’s employment rates in Belgium, we would expect to find significant and positive effects on the employment rates of the three groups of women during the policy’s intervention period.

Our results revealed a positive and significant effect during the first quarter of 2004 (i.e. in the quarter in which the policy came into effect) for low-skilled women. This positive effect shows that, on average, the employment rates of low-skilled women were higher after this quarter relative to their employment rates prior to this quarter. However, another positive and significant effect on their employment rates was only observed starting in the fourth quarter of 2005 until the fourth quarter of 2006, possibly

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*Figure 1. An intervention analysis: quarters with a significant change in the level of women’s employment rates (%). Significant changes are marked according to their significance level, with ▲, △ or ●.*
because only then was the scheme established. Our analysis additionally identified the negative effect of the Great Recession on the employment rates of low-skilled women in Belgium, which reached its nadir in the first and the fourth quarters of 2008.

For both medium-skilled and highly skilled women, we observed a positive and significant effect during the third and fourth quarters of 2004. Another positive and significant effect on the employment rates of the medium-skilled was observed during the second and third quarters of 2007; for highly skilled women, we observed an additional positive and significant effect between the third quarter of 2006 until the second quarter of 2007. In other words, we observed both short- and long-term positive effects among the three groups of women.

In order to detect whether the positive and significant effects that were found approximately 2 years after the enactment of the policy among the three groups of women could still be considered to be an outcome of the policy, we used the second, structural breaks analysis. In this analysis, significant breaks represent a significant change in both the level and the slope (that is, growth) of the series of the number of users and the number of employees. We assumed that significant changes would be found as long as there was a significant effect of the policy on the growth of these two measures. Consistent with this assumption, we assumed that the quarter from which on the changes became not significant represents a saturation in the policy’s intervention effect and might represent the end of the policy’s meaningful intervention period. Figure 2 presents the results of this analysis. The dots on the dashed lines represent a significant break/change at the relevant quarter. As this figure shows, the changes in the series level and in the slope of the number of employees are significant until the first quarter of 2007 and are not significant starting in the second quarter of 2007. In terms of the number of users, the breaks were significant until the third quarter of 2008. Therefore, the positive and significant effects on the employment rates of the three groups of women, which were found approximately 2 years after the enactment of the
policy, can still be regarded as an outcome of the scheme. These results suggest that the policy’s intervention period extended well beyond the time of its enactment since the number of employees and the number of users continued to grow immensely even 3 and 4 years later, respectively. A crucial issue is whether other policy-related factors might have played a role here. However, the SVS was far and away the most important policy stimulus that occurred during this period.5

Figure 2 also shows the results of the break analysis for the employment rates of the three groups of women. Consistent with the results of the intervention analysis, the most pronounced change in the employment rates of low-skilled women was found during the second quarter of 2007. While the growth in the employment rates of low-skilled women was positive prior to this quarter, it became negative after it. Interestingly, it is during this quarter that the break in the series of the number of employees became not significant. These results suggest that the decline in the growth of the number of employees and the employment rates of low-skilled women appeared in tandem. In terms of the highly skilled women, we observed two significant changes during the intervention period, in the third quarter of 2004 and the fourth quarter of 2006. The break in the series of the number of users also attained its peak during the fourth quarter of 2006, suggesting that indeed the users of the scheme are, largely, highly educated women.

Identification of a policy effect

In order to better detect the policy effect, we employ the difference-in-differences approach. In this analysis, which mimics an experimental design, we include also males’ employment rates by educational level and use them to pick up the changes that should be ascribed to time or to any other policy implemented during the period considered. We assume that if any other factor affected the employment rates of people in Belgium, apart from the SVS, its effect would have been apparent both among men and among women. However, if the SVS was the main cause to the change in the employment rates, and if it indeed affected mostly women, we expect to find a significant gap between the employment rates of men and women between before and after 2004. The outcome variables in this analysis refer to employment rates of both men and women, and gender is included as an explanatory variable in the analysis, and represents the treatment variable, assuming that women are the treatment group and men are the control group. If there is indeed a policy effect of the SVS, we expect the coefficient of the interaction between the gender dummy and the policy intervention dummy to be significant, as it measures the change in the male to female employment gap that has occurred between before and after 2004.6

As can be seen in Table 2, the interaction term is positive and significant in the models of the low-skilled and the highly skilled, but is not significant

| Table 2. Results of the difference-in-differences analyses estimating the effect of the Belgian service voucher scheme on employment rates by educational groups and gender. |
|---------------------------------|---------------------------------|---------------------------------|
|                                  | Employment rates of low-skilled | Employment rates of medium-skilled | Employment rates of highly skilled |
| Policy intervention (1 = yes)    | \(-3.66^{***}\) (0.79)          | \(-1.62\) (0.99)                  | \(-0.84\) (0.71)                  |
| Gender (1 = female)             | \(-26.93^{***}\) (0.96)         | \(-17.07^{***}\) (1.20)          | \(-9.01^{***}\) (0.86)           |
| Policy × gender                 | \(5.46^{***}\) (1.12)          | \(2.37\) (1.40)                  | \(2.30^{*}\) (1.01)              |
| Region = Brussels               | Ref.                            | Ref.                            | Ref.                            |
| Region = Flanders               | \(10.53^{***}\) (0.61)         | \(15.50^{***}\) (0.76)          | \(7.51^{***}\) (0.54)           |
| Region = Wallonia               | \(2.89^{***}\) (0.61)          | \(7.17^{***}\) (0.76)           | \(3.61^{***}\) (0.54)           |
| Constant                        | \(56.17^{***}\) (0.76)         | \(70.64^{***}\) (0.96)          | \(83.09^{***}\) (0.69)          |
| Adjusted R²                     | 0.97                            | 0.92                            | 0.84                            |
| N                               | 90                              | 90                              | 90                              |

*p < 0.05; ***p < 0.001.
among the medium-skilled. Therefore, this analysis demonstrates a positive effect of the SVS on the employment rates of low-skilled and highly skilled women in Belgium. Among the low-skilled, the model predicts that the employment rates of men will be on average 3.66 percentage points lower in the policy intervention period, relative to the pre-policy period. However, for women, the model predicts an average increase of 1.8 percentage points in their employment rates between the two periods. This gap is found to be significant. Among the highly skilled, the model predicts a non-significant decline of 0.84 percentage points in the employment rates of men, in the policy intervention period. However, for highly skilled women, the model predicts a significant increase of 1.46 percentage points in their employment rates in the policy intervention period, relative to the pre-policy period.

Summary and conclusion

A number of European countries have introduced measures specifically designed to extend employment in the sector of domestic services. The Belgian SVS has been particularly successful in terms of its relative expansion and size. This fact is perhaps not surprising in light of this scheme being one of the most heavily subsidized schemes of its kind.

The first and primary objective of the scheme was the creation of extra jobs, particularly for people with no or only few formal qualifications. A second objective of the scheme was the reduction of the informal sector activity and the attainment of better social rights and working conditions for this workforce. The growth of the number of people formally employed under the scheme has been impressive in both absolute and relative terms. However, this contribution has highlighted some worrisome facts that shed doubt on the effectiveness of the scheme at realizing its stated purposes. A sizeable fraction of the SVS workforce (approximately 40%) is not low-skilled, and an increasing portion of these workers are not coming out of unemployment or non-employment (including possibly informal employment) and are instead coming out of paid work. There is also some evidence of the displacement of qualified care workers by SVS employees. With 7 out of 10 SVS workers having a job tenure of more than 3 years, the scheme does not appear to act as much of a stepping stone to non-subsidized regular employment. With these findings already known from published statistics, this study has examined more closely the employment effects of the scheme.

We have used three different types of analyses to examine whether the Belgian SVS fulfilled one of its primary objectives (i.e. increasing the employment rates of low-skilled women). In our analyses, we also analysed the scheme’s effect on the employment rates of medium-skilled and highly skilled women. We hypothesized that the policy’s effect may well have extended beyond low-skilled women by providing new job opportunities for medium-skilled and highly skilled women (e.g. in employing companies) or by allowing them to outsource domestic duties and better reconcile work and family life.

We found that for the three groups of women, there were both short-term and long-term effects on their employment rates. For low-skilled women, we observed an increase in their employment rates immediately after the scheme was enacted. The employment rates of these women continued to rise in the years thereafter. However, it seems that the economic recession predominantly hurt this group of women and reversed the growth in their employment rates, yielding a nadir in their employment rates in 2008. Medium-skilled and highly skilled women also experienced an increase in their employment rates after the enactment of the policy, although this increase occurred somewhat later than it did for their lower-skilled counterparts. The crisis halted this increase but did not reverse it as it did for less-skilled women. Moreover, our last analysis, which allows for a better identification of the policy effect, demonstrated that the policy has mostly affected the employment rates of the low-skilled and the highly skilled women, as it significantly increased their average employment rates after the enactment of the policy. This result was not found for the medium-skilled women.

In conclusion, it appears that the Belgian SVS did in effect increase the employment rates of women in general and of low-skilled women in particular. The key question remains whether these increases, when they occurred, justified the very considerable cost of the system, and the nearly 70 percent public subsidization level. Since this analysis did not attempt to
estimate net employment effects, we cannot answer this question. Future studies focusing on net employment effects will have to take into account several challenges in the overall assessment of the scheme, for example, the remarkable fraction (nearly 40%) of employees with higher secondary education, the increasing share of entrants who come out of another paid job, the limited stepping-stone function, the displacement of work already performed in the regular labour market and the significant increase in the number of labour migrants in the system. It is possible that these deviations from the scheme’s initial directives are related to the fact that there is fierce competition for consumer business among SVS companies. These companies face strong pressures to hire the most productive, reliable workers. Such people are likely more easily found among people with work experience, rather than people entering the scheme from non-employment. It is unlikely that the scheme will undergo drastic change in the near future. Despite its sizeable budgetary cost, the scheme has become a classic case of median voter capture in a highly competitive electoral arena. Although a good case can be made to restrict inflow into the system to people who have more limited opportunities in the regular labour market (e.g. the least-skilled or the long-term unemployed), the preferences of the overwhelmingly affluent middle-class consumers clearly carry more political weight. Another limitation of this study is in the unavailability of micro-level data. To better identify the scheme’s effect on the employment of women, future studies should use micro-level data if such data become available.

The three-party setup of the system, in which individual consumers do not act as direct employers of SVS workers, has major advantages, as Vandenbroucke (2015) correctly points out. Consumers have almost no control over the hiring, monitoring and control of SVS workers; all of these processes are borne by the SVS firm. As Raz-Yurovich (2014) suggests, when state policies reduce transaction costs for households, households will have more incentives to opt for ‘buying’ rather than ‘doing’ domestic work. The SVS worker, on the contrary, also enjoys a reduced search cost. She does not have to look for clientele herself, and she is typically ensured a steady flow of work. She also enjoys having her contractual and administrative requirements professionally handled, and she receives full social insurance benefits. However, at the same time, this setup creates intense competitive pressures among SVS companies competing for business. This situation is good for consumers, and it is good for SVS workers fortunate enough to be healthy and productive. This setup is likely less advantageous for the people who were targeted by the scheme in the first place: low-skilled women at the margins of the labour market.

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Notes
1. Since July 2013, the amount of tax credits has been limited to €1380 per person per year. This limit did not apply previously, and the service voucher was also significantly cheaper when it was first introduced (€6.5). The price was progressively increased to €9 in 2013, in the context of low inflation.
2. Comprehensive data on the scheme are available only until 2012.
3. A full description of the models used in the intervention analysis and their explicit results can be found in Appendix 1.
4. A description of this analysis and its explicit results can be found in Appendix 1.
5. Belgium has a multitude of active labour market policies at the federal, regional and local level. According to the Organization for Economic Co-operation and Development (OECD) statistics, Belgium is in fact one of the biggest spenders on such policies in relative terms. While many changes occurred to various schemes in the time period under observation, these were diverse and presumably worked in various directions.

6. The Parallel Paths assumption was validated, based on Mora and Reggio (2014).

References


### Appendix 1

#### Table 3. Results of the intervention analysis\(^a\) and the structural break analysis.\(^b\)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>An intervention analysis</th>
<th>Structural break analysis(^c)</th>
<th>Structural break analysis(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β coefficients of the quarter dummies</td>
<td>F-values</td>
<td>F-values</td>
</tr>
<tr>
<td></td>
<td>Low skilled (ln)</td>
<td>Medium skilled (ln)</td>
<td>Highly skilled (ln)</td>
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<tr>
<td>2003q1</td>
<td>0.006</td>
<td>−0.003</td>
<td>−0.004</td>
</tr>
<tr>
<td>2003q2</td>
<td>0.004</td>
<td>−0.003</td>
<td>0.001</td>
</tr>
<tr>
<td>2003q3</td>
<td>0.017</td>
<td>0.006</td>
<td>0.005</td>
</tr>
<tr>
<td>2003q4</td>
<td>0.020</td>
<td>−0.000</td>
<td>0.002</td>
</tr>
<tr>
<td>2004q1</td>
<td>0.037(^*)</td>
<td>0.010</td>
<td>0.006</td>
</tr>
<tr>
<td>2004q2</td>
<td>0.018</td>
<td>0.013</td>
<td>0.011</td>
</tr>
<tr>
<td>2004q3</td>
<td>0.025</td>
<td>0.026(^*)</td>
<td>0.015(^{**})</td>
</tr>
<tr>
<td>2004q4</td>
<td>0.019</td>
<td>0.027(^{**})</td>
<td>0.012(^*)</td>
</tr>
<tr>
<td>2005q1</td>
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<td>0.020</td>
<td>0.010</td>
</tr>
<tr>
<td>2005q2</td>
<td>0.013</td>
<td>0.011</td>
<td>0.010</td>
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<tr>
<td>2005q3</td>
<td>0.015</td>
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<td>0.010</td>
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<tr>
<td>2005q4</td>
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<td>0.010</td>
</tr>
<tr>
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<td>0.014</td>
<td>0.015</td>
</tr>
<tr>
<td>2006q2</td>
<td>0.039(^{**})</td>
<td>0.018</td>
<td>0.012</td>
</tr>
<tr>
<td>2006q3</td>
<td>0.042(^{**})</td>
<td>−0.004</td>
<td>0.022(^{**})</td>
</tr>
<tr>
<td>2006q4</td>
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<td>0.030(^{***})</td>
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<tr>
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<td>0.027</td>
<td>0.024(^*)</td>
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<tr>
<td>2007q2</td>
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<td>0.045(^{***})</td>
<td>0.020(^*)</td>
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<tr>
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<td>−0.000</td>
</tr>
<tr>
<td>2008q1</td>
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<td>−0.003</td>
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<tr>
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<td>0.000</td>
</tr>
<tr>
<td>2008q4</td>
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<td>0.001</td>
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<td>0.007</td>
<td>0.001</td>
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<td>2009q3</td>
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<td>0.012</td>
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<tr>
<td>2009q4</td>
<td>−0.006</td>
<td>0.004</td>
<td>0.003</td>
</tr>
</tbody>
</table>

\(^a\) In the intervention analysis, we used a series of ARMA (1,1) regressions to estimate the separate effects of quarter-period dummies used beginning with the first quarter of 2003 and ending with the fourth quarter of 2009, controlling for gross domestic product (GDP) (log), minimum wage (log) and female migration (log). For this analysis, we use the natural log of the employment rates of highly skilled women as a dependent variable, and a robust variance covariance matrix. ARMA (1,1) regression is a linear regression with one autoregressive (AR) and one moving average (MA) components.

\(^b\) In this analysis, we used the Chow test to test for known structural breaks (Stock, 1994). The dependent variables are log transformed.

\(^c\) Controlling for GDP (ln); trim 10 percent.

\(^d\) Controlling for GDP (ln), minimum wages (ln) and female migration (ln); trim 10 percent.

\(^*p<0.05, \^{**}p<0.01, \^{***}p<0.001\)