

Full-Time Activation Programs: Driving Productivity or Promoting Self-Sorting?

An Analysis of Full-Time Activation Programs on
Unemployment Rates and Welfare Dependency

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24th May 2023



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Master's Thesis

24th May 2023

Abstract

This study investigates the impacts of full-time activation programs on unemployment and welfare dependency rates in Swedish municipalities. With a policy proposal by the current government to make full-time activation mandatory for welfare eligibility, this research examines the underlying perspectives of such programs and their effectiveness in integrating the unemployed into the labor market. The study addresses four main research questions, exploring the impacts of activation programs based on individuals' foreign background and education levels, the rationale behind requiring full-time activation, and the dominant perspective between productivity and sorting in this context. Using a difference-in-differences method and a panel dataset covering 290 Swedish municipalities from 2008 to 2018, the study's findings reveal a significant negative effect on the unemployment rate of foreigners but no significant effect on low-educated individuals. Further, no significant effects of the policy are found on welfare dependency for both types of individuals. These findings suggest that the productivity perspective is more dominant than the sorting perspective for full-time activation programs. This research aims to create a better understanding of full-time activation programs and their role in shaping labor market dynamics and welfare policies in Sweden.

Keywords: *Full-time Activation Programs, Difference-in-Differences, Workfare, Welfare Dependency, Unemployment Rate*

[¶] **Acknowledgments:** I would like to express my profound gratitude to my supervisor, Åsa Hansson, for her guidance and support throughout this thesis. I extend my thanks to Hugo Rofors and Oliver Rosengren who went above and beyond in providing me with great knowledge of this topic.

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1 Introduction

The debate regarding welfare dependency and unemployment has intensified in Sweden in recent years. Following the most recent change in government, leading right-wing parties proposed a number of suggestions to integrate the unemployed into the labor market and thus reduce the cost of welfare payments. Among these suggestions is a proposal for a national regulation requiring full-time participation in activation programs as a condition for welfare eligibility. Since 1998, Swedish municipalities have had more freedom to implement their own welfare requirements, initially applicable only to the youth, and after a reformulation of the law in 2013, to all ages. This freedom in designing their own welfare programs has led to differences between municipalities, 67 require full-time participation, while 223 do not. Currently, there are few research papers on the effect of activation programs and none on full-time activation programs in Sweden. Previous research has focused on the effects on youth before and after 1998, while none have examined the broader recommendations implemented in 2013. There are also two different perspectives on the purpose of activation programs: the *productivity perspective*, which views activation programs as a tool to help the unemployed increase their competence in the Swedish labor market and their likelihood of finding employment, and the *sorting perspective*, which sees them as a tool for the government to enforce self-sorting in the labor market through tedious activities. This thesis aims to fill the gap in research on full-time activation programs and explore which perspective has a more dominant effect. By doing so, this study seeks to contribute to a better understanding of the effectiveness and purpose of full-time activation programs.

The research questions guiding this study are:

1. How do full-time activation programs affect the unemployment rate of individuals based on foreign background and education levels?
2. How do full-time activation programs affect the welfare dependency of individuals based on foreign background and education levels?

3. What is the rationale behind requiring full-time activation programs?
4. Which perspective is more dominant in the context of full-time activation programs: productivity or sorting?

To address these research questions, both theoretical and empirical analyses will be employed. The theoretical analysis discusses activation programs in the context of *Active Labor Market Policies* and *Workfare*, with focus lying on theories of workfare. The empirical analysis will be conducted using a difference-in-differences method with a panel dataset covering 290 Swedish municipalities from 2008-2018. Data on the municipalities' working methods is sourced from a report presented in connection with the intensified debate. Consequently, there may be concerns regarding the accuracy of the data, which will be discussed further.

The thesis is structured as follows:

Section 2 provides background on the Swedish welfare system, the political debate, and the development of activation programs. Section 3 outlines the sorting perspective on workfare and productivity perspective on active labor market policies, providing a connection between theory and this study. Section 4 presents previous research from Sweden and other countries linking them to the theories. Section 5 describes the data and its limitations. Section 6 explains the model used in the empirical analysis. Section 7 presents the results obtained from the empirical analysis. Section 8 analyzes the relationship between theory and results, discusses the findings, and draws conclusions.

2 Background

This section offers insights into the background of welfare, and activation programs and it is structured as follows. Section 2.1 delves into the Swedish welfare system, Section 2.2 presents the political debate and explains the Swedish Activation programs. Section 2.3 discusses how Swedish Activation programs have changed and Section 2.4 presents the municipality data and its limitations.

2.1 Welfare System in Sweden

In Sweden the municipalities have the responsibility to provide financial aid to those in need. This includes welfare payments to the unemployed were, contrary to the unemployment insurance, it is provided to those who are unable to support themselves financially. This is aimed to be a safety net for only those who are in need and are unable to find other solutions (Socialstyrelsen, 2021). This includes those unemployed because of addiction problems, physical- or psychological hinderances, language barriers or just unable to get involved in the Swedish labor market. Throughout this paper the words financial aid and welfare will be used interchangeably, but with their meaning being the same.

In addition to providing welfare support, municipalities also have the responsibility, in collaboration with the Swedish Employment Agency, to help those in need enter the labor market. The regulations and recommendations regarding how Swedish municipalities should work with welfare and its requirements are determined by the National Board of Health and Welfare and the government. However, these guidelines can be interpreted differently across municipalities. This variability in interpretation has led to differences in welfare systems across municipalities, arising from both diverse interpretations of their responsibilities and the political views held by each municipality.

The concept of requiring welfare recipients to provide something in return has been designed differently in the world. One approach is workfare which refers to the requirement of participation in, most commonly, labor provided by the government. The aim of the workfare programs is not to provide the participant with any valuable product but rather to have welfare being less appealing. Another approach is active labor market programs which refers to the requirement of participation in, most commonly, CV workshops, interview courses, and other competence increasing activities. The aim of these programs is to provide the participant with valuable product and make them more appealing in the labor market. Though different in their design, there are similar tendencies between the approaches, being the government requiring individuals to devote time in order to be eligible welfare benefits (Kildal, 2001). The theories provided in *Section 3* will dwell deeper into the reasoning behind these approaches and drawing connections to the Swedish program.

2.2 Politics and Activation Programs

The welfare recommendations are tightly connected to the political motivations of the government and after the election in September of 2022, the new right-wing constellation formed an agreement where the future direction of welfare payments and activation programs were stated. In the agreement both the idea of lowering the dependency of welfare and with initiatives that enhances the competence of unemployed individuals, were stated (Tidöavtalet, 2022, pp. 57-58). Further a proposal of a political reform was lifted by the governments leading party in March of 2023 that suggested a national requirement, including all municipalities, of full-time activation programs of competence enhancing activities, for those applying for welfare (SVT, 2023).

The aim of the proposal is to standardize workfare policies across all Swedish municipalities, thereby reducing differences among them. A common theme in political decisions and opinions advocating for the enhancement of workfare is the belief that it would lower both the unemployment rate and government welfare costs. This is because

the activities included are intended to help the unemployed enter the labor market. Consequently, individuals participating in a welfare program that requires full-time activation would improve their competence of the Swedish labor market, which in turn would facilitate their transition into employment more easily.

2.3 How Activation Programs Have Changed

In the political proposal provided by the Swedish government and the National Board of health and Welfare in 1998, a change in the law was made that allowed the Swedish municipalities to impose requirements for individuals receiving welfare. The purpose of these requirements were to enhance the recipients competence to increase their chances of entering the labor market. The law did also state a clear distinction of who this shall apply to, restricting it to only those younger than 25 years, or if reasons call for it older than 25 years old (Regeringen, 1996/97:124). This change was the first time a clear recommendation and law stated that municipalities were explicitly allowed to require participation in activation programs for individuals receiving welfare payments. The design of the activation programs, in terms of hours, and what activities to be required, was then left to the municipalities to decide, meaning that the shape of it differed across municipalities. The law did however state that the purpose of the activities should be to make the recipients enter the Swedish labor market. In 2013 the government changed the law further by removing the age restriction making it now applicable for all ages (SFS, 2013:421). This law is referred to as *SoL 4:4*. The municipalities ability to shape the program as they pleased was still supported and thus differences across municipalities remained where some municipalities aimed to require full-time workfare (40 hours a week), while others did not.

According to a report by Moderata Ungdomsförbundet (2023), which aimed to map the activation programs of Swedish municipalities and determine how many intended to require full-time participation, the following results were presented. Out of Sweden's 290 municipalities, 67 reported that they aimed to implement full-time participation as

the minimum requirement, while the remaining 223 did not. The report did not provide information about when these policies were implemented in each municipality. This information has been subsequently examined and will be presented in *Section 2.2*.

2.4 Municipality Data and its Restrictions

The data of which municipalities that require full-time participation in activation programs is gathered from the mentioned report. The answers from the report are based on interviews where the question of interest was if they (1) require participation in activation programs for welfare and (2) if it covers full-time participation (Moderata Ungdomsförbundet, 2023). However, there is no information if they started to require it before, after or at the introduction of SoL 4:4. To receive this information, I proceeded to contact each of the 67 municipalities listed in the report. The method of contact was structured by first contacting and reminding them through email. If they did not answer, I proceeded to call them and further email. This was done consistently through the scope of two month. The results were however underwhelming since the common theme is that there does not exist any sufficient documentation of this. Though, those who were able to provide information referred to 2013 as the year where municipalities who aim for full-time participation in activation programs, started implementing it for all ages. Thus, the best chance I have of analyzing the effect of full-time participation in activation programs is to base the data solely on the report. This is not optimal since there exists a risk that some municipalities implemented the policy at another time period than 2013 or that the report has faulty information. However, assuming that most municipalities follow the recommendations and that the municipalities that require full-time participation today, did so before, it might still be possible to find an aggregated effect after the year of 2013.

When communicating with the municipalities a recurring theme came up regarding their view on the purpose of the requiring participation in activities for welfare seekers. Almost all municipalities stressed that the activities design and reason was solely

implemented to assist individuals to get involved in the labor market. They also made it clear that they did not see the requirements as a counter-performance from the individuals. This corresponds with the Active Labor Market Policies' reasoning of activation programs where the causality between participation and employment is the increased competence of the participants.

3 Theory

In this section, I will present theories regarding Workfare and Active Labor Market Policies (ALMPs), both having different perspectives on activation programs. The theories regarding workfare explore the impact of workfare on individuals' willingness to claim welfare, and the theories regarding ALMPs looks at how the government can help improve the employability of unemployed individuals. Though both theoretical aspects are interesting for this study, the focus will be put on providing more information on the theories of workfare to explore the policy through this perspective. This section is structured as follows. Section 3.1 presents and discusses workfare theories; Section 3.2 presents and discusses the theory of ALMPs. In Section 3.3 the sorting- and productivity perspectives are explained.

3.1 Workfare Theory

In this section, two theories regarding workfare will be presented. The first theory is from Besley and Coates (1992), where they discuss the use of workfare as a screening- and deterring mechanism. The second theory from Kreiner and Tranaes (2005) discusses whether workfare requirements are able to Pareto-improve a solely pecuniary benefit system.

3.1.1 Besley and Coates

The economic paper written by Besley and Coates (1992) highlights the problem that a government faces when wanting to set an optimal welfare level that both supports those in need while not incentivizing unemployment. For the government to succeed with this task they may use workfare as either a screening- or deterring mechanism.

3.1.1.1 The Basic Model

The authors present a model to analyze the ways that a policy maker can set up the welfare system in order to optimize the utility, while minimizing costs. In this model the government is faced with a dilemma of wanting to ensure each individual the

minimum income level of z and doing so at a minimized cost. The welfare should be aimed to only assist those who would earn less than z would they not have been given welfare. Those who would earn more than the minimum income level of z would therefore not be incentivized to imposter as a person in need. The *income-generating ability* used to characterize the individuals is presented as $a \in \{a_L, a_H\}$, where a fraction is represented by individuals with low income-generating abilities a_L and the other part being high income-generating abilities a_H . It is assumed that both types of individuals have the identical preferences over income (y) and work (l).

The policy makers provide the option of receiving a *poverty-alleviation program* package which consist of the individual receiving welfare in exchange for providing workfare. The individuals can either choose to work in the private sector, being a normal job, or work in the public sector, being synonymous to workfare. The work provided in the public sector is deemed to be unproductive, being only a requirement. An individual may however still continue to provide labor supply to the private sector even if accepting the package (Besley and Coates, 1992, p.251).

The labor-supply in the private sector of an individual choosing to claim the package is denoted as $l(b, c, a_i)$ where a_i represents the ability, or wage rate, b represents the welfare benefits and c is the workfare costs. For an individual who chooses not to claim the package and thus not being in the program has a labor-supply of $\hat{l}(a_i)$. The labor supply of an individual receiving the package in the private sector based on the level of c is presented below.

$$l(b, c, a_i) = \begin{cases} \hat{l}(a_i) - c & , \text{if } c \leq \hat{l}(a_i) \\ 0 & , \text{otherwise} \end{cases}$$

The upper equality represents what the labor supply becomes when $c \leq \hat{l}(a_i)$, thus if the cost of workfare is less than or equal to that of not claiming the package, the labor supply will take the value of $\hat{l}(a_i) - c$. The labor supply left for the private sector will be reduced by the amount of workfare that the individual has to provide in the public sector. The lower equality represents the labor supply if $c > \hat{l}(a_i)$, which results in no

further work in the private sector for the individual, since all time is consumed by the workfare. Given the private sector labor supply, an individual who claims the package will receive the earnings and utility presented below.

$$y(c, a_i) = \begin{cases} a_i(\hat{l}(a_i) - c) & , \text{if } c \leq \hat{l}(a_i) \\ 0 & , \text{otherwise} \end{cases}$$

$$u(b, c, a_i) = b + y(c, a_i) - h(l(c, a_i) + c)$$

For an individual to claim the welfare package, the utility of doing so must be greater than or equal to not doing so.

3.1.1.2 The Screening Argument

Suppose that the individuals income-generating abilities are unknown to the government but the distribution of it being observable. Meaning that a fraction earns the wage of a_L and the rest earns the wage of a_H . In this constellation there may be high-ability individuals that can prefer to impostor as a low-ability individual in order to claim the welfare transfer not meant for them.

Depending on the information that the government has, there exists two polar cases. The first case is when the government has no information on the income that the individual gain from the private sector. In this case an individual can claim the benefits meant for a low-ability individual while still earning income and working how much they want in the private sector. The other case is when the government has information on the earnings in the private sector. In this case the individuals claiming a package meant for a low-ability individual must lower their labor supply or stop working entirely in the private-sector to receive the benefits. The latter case is more likely to be applicable in developed countries, where the problem often is that individuals are incentivized to opt out from working to instead collect welfare (Besley and Coates, 1992). Since this is more applicable to this study, no detailed discussion of the first case will be made.

With income from the private sector being observable, it is now possible to implement a benchmark welfare program. The income of an individual wanting to impostor as low-ability individual must also have the earnings of a low-ability individual to be entitled the welfare program. To prevent an individual from reducing their own labor supply in the private sector to be entitled, the government needs to assure that the utility of a high-ability individual is greater if they do not claim the package. This is done through introducing constraints of workfare. Constraints regarding *workfare* would thus increase the opportunity cost for a high-ability individual to impostor and gain welfare, since they now have to devote more time into working in the public sector. In the perspective of this study, this would translate to regulations of full-time participation in activation programs disincentivizes individuals to impostor since the opportunity-cost increases. The policy will thus work as a self-sorting mechanism for individuals where only the ones that would increase their utility or be indifferent to, by receiving welfare would claim the package (Besley and Coates, 1992, pp.253-256).

3.1.1.3 The Deterrent Argument

Now the abilities of all individuals are observable and being poor is not only a result of unfortunate luck, but rather a combination of bad luck and choices made earlier in life. The future earnings of an individual is made from an *ex-ante* choice, meaning previous to receiving welfare or not. There exists a probability of being a high-ability individual and it is dependent on the amount of *effort* they put in. Effort is measured in units of disutility and the more effort one puts in, the higher probability of becoming a high-ability individual one has (Besley and Coates, 1992, p.256).

It is known to the individuals before making their effort choices that there exists a welfare program and will thus choose their effort level to maximize their utility in the future. The more utility one will gain by having a greater ability in the future, the more effort will be devoted now (Besley and Coates, 1992, p.257). Remaining the benchmark welfare program in this situation would reduce the ex-post utility

differences between being on workfare or not, and thus reduce the returns gained from effort. Resulting in a lesser effort level and an increasing proportion of the poor (Besley and Coates, 1992, p.257).

The *maximum work requirement*, c_L^m , represents the workfare, that in combination with a welfare transfer, makes low-ability individuals indifferent of claiming the welfare package or not. Here we need the maximum work requirement to exceed the labor supply of the private sector in the absence of welfare benefits. The reason for this is that in status quo, the low-ability individuals will earn less than the minimum wage level, meaning that at the maximum work requirement, the low ability individuals will not work or receive income from the private sector (Besley and Coates, 1992, p.257).

Since the workfares purpose is to minimize the utility of low ability individuals to participate in the welfare program, the return of putting in more effort increases. If the workfare is less than the labor supply of the private sector in the absence of welfare benefits, then the workfare will have no effect on the individuals utility levels. For this to be the case, the workfare needs to be combined with a welfare level of at least z . If the welfare transfer is less than this, the low-ability individuals will continue to produce labor-supply in the private sector while earning an income of z , with the only difference being that an c_L amount of labor will be done in the public sector. Workfare levels of the lower kind will thus not reduce the poor individuals gain from the program, but the government must compensate with a greater transfer since their private sector income has decreased. Thus, with workfare levels less than the labor supply of the private sector the costs will be increasing in c_L (Besley and Coates, 1992, pp.257).

If the workfare levels exceeds the labor supply of the private sector, the low-ability individuals will cease to work in the private sector and receive the transfer of z . Increasing the workfare requirements beyond this point will not result in any additional increases in the transfers and since the individuals no longer can lower their workload in the private sector, additional workfare will only lower their utility. Therefore,

workfare levels at this magnitude will decrease the gains of the welfare programs for the low-ability individuals by c_L . This implies that the ex-post difference in utility between having high- or low-ability increase when the individual increases their effort level. The expected amount of poor people and the cost of poverty alleviation will therefore be expected to decrease. However, there is a limit to the extent that the workfare requirements can be put, given the value of the maximum work requirement, c_L^m . If the workfare requirements exceed that of c_L^m , then the individuals with a low ability would be better off by not participating in the welfare program altogether (Besley and Coates, 1992).

3.1.1.4 Implications for the Study

According to the screening-argument theory in Besley and Coates (1992), increasing welfare requirements through full-time participation in activities would result in fewer high-ability individuals claiming welfare. The opportunity costs for high-ability individuals to impersonate low-ability individuals would rise, making it less attractive for them to claim welfare not intended for them. Consequently, only those unable to participate in the labor market and with no other choice than to engage in the activities offered by the municipalities would remain on welfare. The screening-argument therefore suggests that municipalities implementing full-time activation programs would experience greater labor market participation and lower welfare dependency.

Viewing full-time activation programs as a deterring mechanism implies that municipalities design the programs to produce worse outcomes for welfare recipients. The ultimate goal would be for individuals to exert more effort to avoid unemployment and maximize their utility in that order. One way to reduce utility for welfare recipients is by extending the typical activation program to require full-time participation. This means that municipalities mandating full-time participation would likely deter welfare dependency more effectively than those that do not, leading to a decrease in the number of welfare-dependent individuals in these municipalities.

3.1.2 Kreiner and Tranaes

Another theory regarding workfare for welfare is presented in the economic paper written by Kreiner and Tranaes (2005). Rather than analyzing the adverse selection problem for poverty alleviation programs, the focus lies on the adverse selection problem for involuntary unemployment. This implies the hindrance of *voluntarily unemployed* individuals from claiming unemployment benefits meant for *involuntarily unemployed* individuals. The individual of interest is thus not only those in the margin of the labor market, but also the average worker who is subject to workfare requirements when unemployed (Kreiner and Tranaes, 2005).

Individuals are assumed to be unable to control whether they remain employed or not. This means that the reasons for involuntarily unemployment are standard search frictions, economic changes, or incomplete information about available jobs. However, those voluntarily unemployed are so due to a *preference to not work*. These individuals have not necessarily always been outside the labor market but could be hard-working individuals who at some time point prefers to not work. Voluntarily unemployed individuals are assumed to be entitled to a minimum transfer level being the amount that the government are willing to provide individuals who are able to work but do not want to. There is however still a risk of voluntarily unemployed individuals to claim unemployment benefits, assuming they are greater than the minimum transfer since there exists asymmetric information of job-searching behavior between the government and the individuals.

The government faces a sorting problem in which they aim to offer different benefits to voluntarily and involuntarily unemployed individuals but are unable to do so due to asymmetric information. As a result, the government must design benefits that encourage individuals to self-select through workfare, intended to not produce any valuable output. The self-selection design is considered effective because voluntarily unemployed individuals are assumed to have a high disutility of working, making the

unproductive workfare a deterrent for them to claim benefits (Kreiner and Tranaes, 2005).

3.1.2.1 Individuals in the Model

Each individual are faced with the choices of (1) joining the labor force or not and (2) wanting to accept a job offer when received. The individuals who receive a job offer and reject it combined with those who do not receive any offers are labeled as unemployed and can claim an unemployment compensation. This compensation is constructed in a package, $\{b, l^e\}$, where b is the benefit received and l^e is the effort requirement to receive the benefit, measured in units of time. Those who decide to be outside the labor force receive the benefit of \hat{b} , where $\hat{b} < b$ holds (Kreiner and Tranaes, 2005, pp.463-464).

The population consists of workers (w) and non-workers (n). The choice between working and not is based on the individuals marginal rate of substitution (MRS) between income and leisure. It is assumed that a worker requires less compensation than a non-worker, in order to work an additional hour, meaning that $MRS^w(y_i, l_i) < MRS^n(y_i, l_i)$ ¹. Further assume that there exists a solution that determines the optimal number of working hours for a worker if they decides not to work. The non-workers are assumed to never work since the utility from not working is greater than the utility gained from working income (Kreiner and Tranaes. p.464, 2005).

3.1.2.2 Constraints on Benefit Policies

The distribution of the individual characteristic in the population is known to the government, though unobservable for a specific individual. For the unemployment package to successfully enforce the individuals to self-select, the following constraints needs to be fulfilled.

¹ For further mathematical deduction, see Kreiner and Traneas (p.464, 2005)

The first constraint is *the labor-market participation constraint*, and it implies that the workers need to prefer employment over unemployment. The utility of working should be greater than that of receiving benefits in exchange of workfare. If this does not hold, then it would imply that the only benefit system that can exist, is the one without benefits.

The second is the *incentive-compatibility constraint* and it implies that for non-workers, the utility of being outside the labor force producing $l^e = 0$ and receiving the minimum transfer of \hat{b} , should be greater or equal to being wanting to receive the unemployment package by producing l^e to be entitled to benefit b .

3.1.2.3 Workfare Benefit Systems

The authors analyze the impact of introducing workfare into a pecuniary benefit system without workfare, to determine whether it results in a Pareto-improved system. They assess the changes in benefits, effort requirements, and taxes on workers' expected utility levels while considering the utility level of non-workers. They discover that the pecuniary benefit system can be Pareto-improved through the introduction of workfare if certain conditions are met.

The improvement is possible if the insurance incentive for workers is large and if the marginal value of leisure varies between workers and non-workers. If both groups have the same value of leisure or disvalue of working, workfare would never be optimal. The study concludes that unproductive workfare can achieve Pareto-improvement if a large portion of the unemployed population consists of individuals unwilling to work, and if the government does not prioritize the well-being of non-workers.

The authors modify their model to account for both task-specific and time-specific workfare. They find that while task-specific workfare is more challenging to implement, it is better suited as a screening device compared to time-specific workfare. This is

because the voluntarily unemployed seeking unemployment benefits must perform the same tasks as the involuntarily unemployed. Assuming that the voluntarily unemployed have a higher disutility of labor than involuntarily unemployed, the voluntarily unemployed would find task-based requirements for welfare relatively less attractive (Kreiner and Tranaes, 2005).

3.1.2.4 Implications for the Study

Drawing on the theory presented by Kreiner and Tranaes (2005), the implementation of full-time activation programs can be viewed as a method to deter individuals with a high disutility of working from relying on welfare. This suggests that a voluntarily unemployed person who is unwilling to work would also find participating in an activation program unappealing. Consequently, they may turn to the labor market, where they would experience the same disutility but with a higher income. A comparison between municipalities requiring full-time activation programs and those that do not would reveal different effects, as requiring greater time commitment would lead to increased disutility for voluntarily unemployed individuals. Therefore, considering the varying work preferences between workers and non-workers, the introduction of an activation program can result in a Pareto-improvement for the pecuniary benefit system.

3.2 Active Labor Market Policies

This section aims to analyze the productivity perspective of Active Labor Market Policies (ALMPs) as presented in the paper by Heckman et al. (1999). ALMPs strive to shift from a passive policy approach that merely provides welfare benefits, to an active policy approach that promotes engagement with the labor market. This approach primarily targets individuals with limited skills and work experience, often those with low education. ALMPs aim to equip these individuals with necessary competencies, promoting their employability instead of solely providing welfare payments.

Heckman et al. (1999) break down ALMPs into five key categories: (a) classroom training to bridge knowledge gaps for the unemployed, (b) subsidized employment facilitated by the government or private firms, (c) private firm job training subsidies, (d) job attainment training, and (e) in-kind employer subsidies for job search. The aim of these designs are all to increase the employability of the participating individual, providing both education and job training.

By providing education and training through the context of ALMPs, the government can better align the competencies of the unemployed with the requirements of potential employers. As a result, individuals who participate in activation programs are more appealing to the labor market, closing the gap that previously hindered their financial independence.

Requiring participation in activation programs to receive welfare benefits, like that of Sweden, is therefore a strategy that transforms a traditionally passive labor market policy into an active one. The program is made to produce valuable product for the recipients and is the reason why individuals can enter the labor market. Mandating full-time participation intensifies this approach further, potentially heightening the impact on participants.

3.3 Theory and Politics

The theories presented in the papers of Besley and Coates, and Kreiner and Tranaes, both analyze the governments use of workfare to optimize their welfare programs. What is apparent in both theories is that the reason for a government to have workfare requirements, is to enforce self-selection. The workfare is not aimed to be increasing the competence of the individuals but rather to prevent them from being in a position of welfare dependency. This perspective will be referred to as the *sorting perspective* throughout this study.

This perspective does not correspond with the theory of ALMPs and what is portrayed in the political debate. This perspective refer to the activation programs as something that is competence increasing and necessary for individuals probability to enter the labor market. Thus, seeing activation programs as an unproductive task that is meant to enforce self-sorting in the labor market, is inaccurate through this perspective. This perspective will be referred to as the *productivity perspective* throughout this study.

The imbalance of the perspectives regarding activation programs for welfare raises the question of what the purpose is, and consequently how the design of the activation programs should be. If the effect on welfare dependency and employment is according to the productivity perspective, then the focus of the municipalities would be on the contents of the program. On the other hand, if the effect is according to the sorting perspective, the municipalities should put less focus on the contents of the programs and rather increase its tediousness.

To test which perspective has a more dominant effect, some assumptions needs to be made. From the productivity perspective those most in need of an increased competence of the Swedish labor market are also those most affected by the policy. It is probable to assume that a subgroup that corresponds with this description is foreigners. More specifically foreigners who are born outside of Europe. This distinction is made since it more likely that foreigners in Sweden from other European countries have it easier to adapt to the Swedish labor market than those born elsewhere. Thus assuming that this is an accurate interpretation, the unemployment rate and welfare dependency amongst foreigners outside Europe would be negatively affected the most from the policy.

From the sorting perspective, it is more probable to assume that those who would gain, or not lose, utility from living on welfare relative to working, would be affected. Thus, the assumption is made that the individuals who have a high probability of receiving an income greater than the welfare levels, would not contemplate claiming a welfare package not meant for them. This would mean that those who either would increase

or remain their income level when living on welfare, would be affected, because of the increasing disutility of labor. Assuming that individuals with lower education fit this description, the unemployment rate and welfare dependency amongst them would decrease from the policy.

However in Kreriner and Traneas (2005) another group of individuals is also lifted among the voluntarily unemployed, individuals who decided to take a break from the labor market and instead live on welfare. These individuals would not necessarily gain more utility in form of income, but rather in a lesser workload. By imposing full time activation programs it is probable to assume that this group of individuals, though having a low disutility of working, would find it less attractive to be outside the labor market. Since they now have to perform the same number of hours for a lesser pay. To test the sorting perspective for these individuals, the assumption is made that high-educated individuals fit this description well. Therefore, to examine the effect of the sorting perspective, the impact on both low- and high-educated individuals will be analyzed, though the reason for their respective impacts varies.

While these assumptions allow for a partial examination of the effects that activation programs have on unemployment and welfare dependency, it is crucial to acknowledge that the results may not be entirely accurate. It is possible that these subgroups include characteristics from other subgroups and with the absence of individual-level data, this is not possible to control for. However, by assuming that the subgroups are mostly populated by individuals with these characteristics, some aggregated effect should be seen.

4 Previous research

In this section previous research with empirical findings regarding both workfare and ALMPs is presented. Section 4.1 presents research of the Swedish activation programs and Section 4.2 presents research from other countries.

4.1 Swedish Research

In a study by Dahlberg et al. (2008), the authors analyzed the impact of the 1998 law on unemployment rates and welfare dependency across city-districts in Stockholm during the period from 1993 to 2003. The aim of the study was to investigate the principal-agent problem that occurs when the principal (the government) are not able to observe the agents true capabilities to work and need for economic welfare. The authors exploited the fact that the city-districts in Stockholm implemented the policy of requiring participation in activation programs for welfare payments, at different years making it possible to design a difference-in-differences analysis around it. The results that were found showed that the implementation of mandatory participation in activation programs lead to a positive effect on employment and a lower probability of welfare dependency.

Another research paper written by Persson and Vikman (2010) analyzed another effect of activation programs being whether it makes welfare recipients leave or prevent them from entering welfare dependency. The analysis was made on individual data from the same time period and city-states as in Dahlberg et al. (2008). The results showed that activation programs primarily increase the probability of individuals to leave welfare dependency rather than preventing individuals to enter.

4.2 Other Countries

In the 1990s the public assistance and welfare programs in the United States changed drastically after the Personal Responsibility and Work Opportunity Act. Within this act policies the different states ability to use workfare and job searching programs were

described, giving states the freedom of implementing them to their liking. This resulted into differences in the work method of the welfare programs between states, similarly to those of the Swedish municipalities. States had the possibility of implementing a stronger version of work requirements which included workfare program mandating work in the public sector, or they could implement a weaker form of requirement in terms of job preparation or job searching programs (Blank, 2002).

The concept of welfare-to-work was further coined and the percentage of welfare takers that chose to participate in a welfare-program rose. During the early 1990s, the main focus was on job placement and training programs, which later shifted in the late 1990s to primarily emphasize narrow job preparation skills, such as interviewing and workplace etiquette, along with job search assistance. The aim of these programs were to improve the employability of the participants and the expected activity of the welfare recipients (Blank, 2002).

In order to enforce these requirements, the municipalities started to implement sanctions with the purpose of penalizing those who did not participate in the programs. The sanctions differed among the states and could involve a reduction in welfare to a permanent benefit loss. Overall, the Personal Responsibility and Work Opportunity Act resulted into a higher labor market connection as well as an increased chance of acquiring jobs for the recipients. Most notably was the effect of the welfare dependency which sunk with this implementation. The increased sanctions and time limits did also play a role in the recipients' behavior, although the exact relationship is uncertain (Blank, 2002).

In Norway a quasi-experimental study, presented in a paper by Espen Dahl (2003), analyzed the effect that workfare has on employment and earnings. The quasi-experiment was set up with a treatment group of 300 people who participated in the workfare program, and a comparison group of 1559 people who did not. This study was done in the mid 1990s in Norway and the data was taken from local social service

administrations. The results, though not easily generalized over time, showed no significant effects on neither employment nor earning. Another quasi-experimental study presented by Giertz (2004), analyzed the effects of requirements on activities in Malmö, Sweden. Similar to the Dahl's (2003) study, the research analyzed the differences between a group who participated in a program and a group who did not and found similarly no significant positive results on employment.

5 Data

The aim of this section is to provide an overview of the data used in this study. The section is structured as follows. Section 5.1 discusses the gathering, implications and limits to the municipality data, Section 5.2 introduces the outcome variables, Section 5.3 presents the covariates, in Section 5.4 the timespan of the dataset is detailed and in Section 5.5 the limitations of the data is further discussed.

5.1 Municipality Data

The data regarding treatment status of each municipality is gathered as described in *Section 2*, implying that 67 municipalities are treated in 2013 and 223 municipalities are not treated in the entire time period. This is as describe not entirely realistic since there may be some municipalities with a misspecified treatment status. However, the aim is to try and capture some aggregated effect around the treatment year of 2013. Based on these assumptions on treatment status and implementation year, some binary variables were constructed indicating the findings. The first binary variable measures if the municipality belongs in the treatment group and takes the value 1 for all time periods, if the municipality takes up the policy (treatment) at any time period. For all 67 municipalities in the treatment group, this variable has the value 1 and for all 223 municipalities in the control group, it has the value 0. The second binary variable indicates the years after the treatment has occurred and thus it takes the value 1 for all time periods after the policy was implemented. For all municipalities, this variable takes the value 0 for all years prior to 2013 and 1 thereafter. A full list of municipalities who require full-time participation in activation programs is found in Appendix 1.

5.2 Outcome Variables

To test the effects that full-time activation programs might have on the welfare dependency and unemployment rate of individuals, four main outcome variables have been chosen. The first two outcome variables are *unemployment rate of foreigners* and *welfare dependency of foreigners*. The unemployment rate of foreigners is measured as

the number of unemployed individuals born in a foreign country outside of Europe aged 20-64 years old, over the population of the municipality. The welfare dependency of foreigners is measured as the number of individuals born in a foreign country outside of Europe and aged 20-64 years old who receives welfare, over the population of the municipality. These two variables have been picked out to capture the effect that activation programs have based on the productivity perspective discussed in *Section 3.3*. The other two outcome variables are *unemployment rate of low-educated individuals* and *welfare dependency of low-educated individuals*. Both variables are calculated in the same way as those regarding foreigners with the difference being only including those with low education. The reason for these variables to be picked out is to capture the effect that activation-programs have based on the sorting perspective discussed in *Section 3.3*. In addition, to further explore the sorting perspective, the unemployment rate and welfare dependency among high-educated individuals have been included as outcome variables as described in *Section 3.3*. The data regarding unemployment rate is gathered from Statistics Sweden's register of integrational studies (STATIV) and the data for welfare dependency is gathered from Statistics Sweden's register of income and taxes (IoT) and STATIV.

Amongst the welfare dependency of foreigners, low- and high-educated individuals, some municipalities and years have missing data. The reason for this is the lack of documentation and data storage of Swedish municipalities regarding welfare payments. Though this may be problematic for the results, the distribution of the missing data is relatively equal amongst the groups. Meaning that both groups experience a similar density of missing data. Full descriptive of the outcome variables is found in Appendix 2.

5.3 Control Variables

To account for the effects that might influence the outcome variable and to indicate the characteristics of the municipalities some covariates have been chosen. The first

control variable is the average income level within the municipality. Since the welfare dependency is tightly related to the level of an individual's income (Socialstyrelsen, 2021, p.20), a municipality with a high-income level thus is more likely to have low welfare dependency. To reduce the skewness of its distribution, it has been logarithmically transformed. A variable that is assumed to be related to income is education and thus this will also be included as the percentage of low-educated individuals within the municipality. The third control variable is the average age of the population within the municipality. This is included since prior to the reform in 2013, the activation programs were only designed to affect those under the age of 25, meaning that age should be a factor for both unemployment and welfare dependency. The fourth control variable is the gender composition of the municipality measured in the percentage of males. Unemployment between genders differs where men tend to have a higher employment rate than women (SCB, 2022), thus including this I hope to account for this effect. Further, unemployment rate for both individual types is also included when running the analysis on welfare dependency since unemployment rate is tightly related to an individual's ability to support themselves financially and subsequently their need for welfare (SOU, 2000:40). Lastly the population of each municipality has been added as a weight to the regression. This to prevent smaller municipalities to impact the results unproportionally. All data is gathered from Statistics of Sweden's, Statistics Database. Full descriptive of the control variables is found in Appendix 2.

5.4 Time Period

The time-period chosen for data ranges from 2008-2018, being five years prior and five years after the treatment. This timespan has been set to both capture the outcome variable and its differences between the treatment- and control group prior to the treatment and to account for if the treatment has a lagged effect on the outcome variable. It is probable that the effect is not prominent the first years after the

implementation since it might take time before the municipalities has fully adopted the adjusted working methods.

5.5 Limitations of the Data

Other than the previously discussed limitations of the municipality data, a general limitation to this study is the absence of individual-level data. Municipality-level data, while being informative, is incapable to capture the individual specific effects and how individuals choices differ in the presence of treatment. By controlling for these individual-specific effects, the results from the empirical analysis would more accurately depict the policy's effect on an individual's probability of employment and welfare dependency. There may be other underlying characteristics influencing the outcome variable, rather than the policy itself. Thus, isolating the policy effect by controlling for these individual-specific traits enhances the credibility of the results. By using individual-level data, the individuals chosen to portray the different perspectives would also be more accurate as previously mentioned.

6 Method

The purpose of this section is to review the empirical method used in this study. The section is structured in the following way; Section 6.1 explains the difference-in-differences method. In Section 6.2 the set-up of the model is presented. Section 6.3 explains the event-study approach.

6.1 Difference-in-Differences

Having defined a treatment- and control group consisting of municipalities having and not having implemented the policy, it is possible to design a Difference-In-Differences analysis around it. The exact design that I will use for this analysis is a so called *two-by-two* difference-in-differences (2x2 DiD) which measures the change in outcome for two groups, treatment, and control, in two time periods, before and after treatment. In this model the pretreatment period is the average of five years prior to the treatment while the posttreatment period is the average of five years after the treatment.

The idea behind a difference-in-differences analysis is to analyze the effect of a policy on a group or aggregate level instead of an individual level. The setup consist of having two groups, one who has implemented said policy and one who has not. The group that has implemented the policy is then considered the treatment group while the other group is the control group. For a difference-in-differences design to produce reasonable results, one needs to assume that the *parallel trends assumption* holds. This assumption implies that the outcome variable for the treatment group would follow the same trend of the control group, have they not been treated. This is difficult if not impossible to ensure in practice, however if the outcome variable for the treatment- and control group follow the same trend before the treatment, one can assume that they would do so also after the treatment. A way of testing this could thus be to perform an ocular inspection of the outcome variable for both groups before and after the treatment. If the parallel trends assumption fails however, the effects seen from the implementation of the policy would not be possible to distinguish from other trends or shocks that simultaneously affects the outcome variable (Angrist and Pischke, 2009). Another way of testing this

is to perform an event-study where the differences of the outcome variable between both groups is presented before and after the treatment. If there is no significant difference prior to the treatment, then this would indicate that the parallel trends assumption also holds.

Another assumption that is required to be fulfilled is the absence of compositional change after the treatment. This requires the composition of the group specific characteristics to not differ significantly before and after the treatment. If this requirement fails, the results are again not reflective of the effect from the policy alone (Angrist and Pischke, 2009).

6.2 Setup

To capture the effect of the policy, one may design a regression-based difference-in-difference model. The following is the regression model that will be used in this model.

$$Y_{it} = \alpha + \gamma_i + \lambda_t + \beta_1 \textit{treat} + \beta_2 * \textit{post} + \delta * (\textit{treat}_i * \textit{post}_t) + \sigma * X_{it} + \varepsilon_{it} \quad (1)$$

Where Y_{it} is the outcome variable for municipality i at time period t . \textit{Treat} is a binary variable indicating treatment status. \textit{Post} is a binary variable indicating the time period after the treatment. The product of \textit{Treat} and \textit{Post} is an interaction term which captures the effect of the treatment. The interaction term is always 0 for the municipalities in the control group and also for the treatment group before the treatment. After the treatment has occurred for the treatment group, it takes the value of 1. X_{it} is a vector of covariates aimed to capture the municipality specific characteristics which effect is gathered by σ , a vector of coefficients for the control variables. ε_{it} is the error term and α is a constant (intercept). The coefficient β_1 captures the average difference between being in the treatment group and not, prior to the treatment. The coefficient β_2 capture the average change in outcome for the control group before and after the treatment period. γ_i and λ_t are dummy-variables for

municipalities and years aimed to capture the time-invariant and time variant effects. The most interesting coefficient is δ which captures the difference in the change in the outcome variable between the treatment- and control group, before and after the treatment. If this gives a positive value, then the policy has a positive effect on the outcome variable while a negative value suggests the opposite.

6.3 Event-Study

There is also a possibility that the treatment does not have an immediate effect on the outcome variable or that the effect intensifies as time pass. To account for this one can show the event study graphically by including multiple pre- and post-treatment periods. The event-study model takes the following form:

$$Y_{it} = \gamma_s + \lambda_t + \sum_{t=0}^m \beta_{-t} D(\text{Lag } m)_{it} + \sum_{t=1}^q \theta_t D(\text{Lead } q)_{it} + \sigma * X_{it} + \varepsilon_{it} \quad (2)$$

The sum and its corresponding coefficient regarding lags captures the m-years prior to the treatment ($\beta_{-5}, \beta_{-4}, \dots, \beta_{-m}$) and the sum and its corresponding coefficient regarding leads captures q-years after the treatment ($\theta_{+1}, \theta_{+2}, \dots, \theta_{+q}$). Say that we are interested in the time period running from -5 to +5, then $D_{it=-5}$ would indicate five years prior to treatment, for the treatment group. Its corresponding coefficient, β_{-5} , would then capture the effect of the outcome variable for the treatment group relative to the control group during that year, in relation some reference year, usually -1. By plotting this in an event study graph and analyzing the leads, we will be able to see effect dynamics of the policy being how the effects change over time.

7 Results

In the following section the results from the difference-in-differences regressions are presented. The regressions run on a *weighted-least-squares* method where weight in form of population has been added. Each regression is made with slight modification, the first having no covariates added, the second including covariates and both having time- and municipality dummies. The first column of each regression thus represents the raw difference-in-differences mean comparison while the second column includes covariates and dummies to account for factors that might influence the outcome which the policy does not capture. The section is structured in the following way; Section 7.1 shows the results from the productivity perspective and Section 7.2 shows the results from the sorting perspective. Section 7.3 includes the robustness-checks.

7.1 Productivity Perspective

The productivity perspective refers to full-time activation programs having an effect on the competence and employability of the participating individuals. This will be tested by analyzing the employment-rate and welfare dependency of foreigners, assuming these individuals are most in need of an increased competence of the Swedish labor market.

7.1.1 Unemployment Rate of Foreigners

The results presented in Table 1 show how the policy has affected the unemployment rate of foreigners. In column 1 the result shows that a negative effect on unemployment rate of foreigners for the treatment group after the treatment compared to the control group. The coefficient indicates a decrease of approximately 1.8 percentage points, significant on a 1% significance level. In column 2 covariates and dummies are added and the effect of the policy is more prominent being a decrease of approximately 2.1 percentage points significant on a 1% significance level.

Table 1 – Unemployment rate of foreigners

WLS VARIABLES	(1)		(2)	
	Coefficient	Std.error	Coefficient	Std.error
Policy	-0.0184***	(0.00382)	-0.0210***	(0.00366)
Gender	-	-	0.169	(0.567)
Log Income	-	-	-0.189***	(0.0461)
Foreigners	-	-	2.383***	(0.117)
Education	-	-	-1.021***	(0.196)
Treatment	0.303***	(0.0162)	0.661***	(0.0355)
Post	0.122***	(0.00458)	-0.00291	(0.0177)
Constant	0.114***	(0.0130)	0.707*	(0.376)
Covariates	NO		YES	
Dummies	YES		YES	
	Obs: 3,190	R ² : 0.815	Obs: 3,190	R ² : 0.859

7.1.2 Welfare Dependency of Foreigners

Opposite to the results in Table 1, the policy seem to have an increase on the welfare dependency. In Table 2 column 1 the policy has a positive effect on the welfare dependency of 0.5 percentage points at the 1% significance level. In column 2 the coefficient decreases slightly with a 1% significance.

Table 2 – Welfare dependency of foreigners

WLS VARIABLES	(1)		(2)	
	Coefficient	Std.error	Coefficient	Std.error
Policy	0.00479***	(0.00110)	0.00421***	(0.00113)
Gender	-	-	-0.198	(0.215)
Log Income	-	-	-0.0991***	(0.0310)
U.rate of foreigners	-	-	-0.0241**	(0.0111)
Foreigners	-	-	-0.169***	(0.0497)
Education	-	-	0.295***	(0.0696)
Treatment	0.0310***	(0.00471)	-0.00762	(0.0158)
Post	-0.0159***	(0.00170)	0.0352***	(0.0102)
Constant	0.0233***	(0.00146)	0.670***	(0.196)
Covariates	NO		YES	
Dummies	YES		YES	
	Obs: 2,401	R ² : 0.696	Obs: 2,401	R ² : 0.706

7.2 Sorting Perspective

The sorting perspective refers to full-time activation programs being a mechanism for governments to enforce self-selection amongst the welfare recipients. By reducing the utility of being unemployed and living on welfare the idea is that those who are able to work will resort back to the labor market. This implies that those who have utility to gain of living on welfare contrary to working would be affected by the policy. Assuming low-educated individuals make up this group of individuals, the unemployment rate and welfare dependency of these will be analyzed.

7.2.1 Unemployment Rate of Low-Educated Individuals

The results presented in Table 3 column 1 implies that the effect of the policy has no significant effect on the unemployment rate of low-educated individuals. When including covariates and dummies in column 2, the significant increases giving an increase in unemployment rate of approximately 0.3 percentage points at a 5% significance level.

Table 3 – Unemployment rate of low-educated individuals

WLS VARIABLES	(1) Coefficient	Std.error	(2) Coefficient	Std.error
Policy	0.00446	(0.00304)	0.00263**	(0.00119)
Gender	-	-	-0.413**	(0.185)
Log Income	-	-	-0.154***	(0.0226)
Foreigners	-	-	-0.0520	(0.0401)
Education	-	-	0.338***	(0.0693)
Treatment	-0.0107***	(0.00227)	-0.00470	(0.0115)
Post	-0.00126	(0.00146)	0.0806***	(0.00726)
Constant	0.144***	(0.00112)	1.124***	(0.161)
Covariates	NO		YES	
Dummies	YES		YES	
	Obs: 3,190	R ² : 0.008	Obs: 3,190	R ² : 0.856

7.2.2 Welfare Dependency of Low-Educated Individuals

The results in Table 4 show no significance results in either column 1, without covariates, nor column 2, with covariates. The estimates are also very small being 0.001 respectively 0.005 percentage points.

Table 4 – Welfare dependency of low-educated individuals

WLS VARIABLES	(1)		(2)	
	Coefficient	Std.error	Coefficient	Std.error
Policy	0.000113	(0.00152)	-0.000544	(0.000584)
Gender	-	-	-0.0956	(0.0774)
Log Income	-	-	-0.0314***	(0.00799)
U.rate of low-edu.	-	-	0.0136	(0.00968)
Foreigners	-	-	-0.0339**	(0.0172)
Education	-	-	0.0844***	(0.0313)
Treatment	-0.00176	(0.00109)	-0.00942*	(0.00509)
Post	0.00571***	(0.000667)	0.0282***	(0.00316)
Constant	0.0223***	(0.000481)	0.227***	(0.0609)
Covariates	NO		YES	
Dummies	YES		YES	
	Obs: 2,750	R ² : 0.037	Obs: 2,750	R ² : 0.876

7.2.3 Further Analysis

Another way to test the sorting perspective is through analyzing whether individuals with a low disutility of working gets affected by the policy. Being that low-educated individuals are assumed to have a high disutility of working, then one can assume that high-educated individuals have a low disutility of working. If a high-educated individual who wants to “take a break” and live on welfare has to put in the same number of hours as welfare dependent, one would assume that they would be discouraged and return to the labor market. In this section I will therefore conduct the same difference-in-differences analysis but now using high-educated individuals as my subgroup.

Table 5 – Unemployment rate and welfare dependency of high-educated individuals

WLS VARIABLES	(1) Coefficient	<i>U-Rate</i> Std.error	(2) Coefficient	<i>Welfare dep.</i> Std.error
Policy	-7.87e-05	(0.000763)	-0.000271**	(0.000137)
Gender	-0.122	(0.122)	-0.0212	(0.0232)
Log Income	-0.0884***	(0.0164)	-0.0137***	(0.00344)
U.rate of foreigners	-	-	0.00264	(0.00498)
Foreigners	0.829***	(0.0322)	-0.0300***	(0.00679)
Education	-0.0104	(0.0477)	0.0245***	(0.00882)
Treatment	0.147***	(0.00916)	-0.00336**	(0.00165)
Post	-0.00502	(0.00544)	0.00611***	(0.00104)
Constant	0.442***	(0.111)	0.0917***	(0.0226)
Covariates	YES		YES	
Dummies	YES		YES	
	Obs: 3,190	R ² : 0.896	Obs: 1,426	R ² : 0.820

Table 5, Column 1, presents the analysis related to the unemployment rate among high-educated individuals. The findings suggest that the policy does not significantly affect this rate. On the other hand, Column 2 displays an analysis of welfare dependency. Here, the policy exhibits a marginal negative effect, reducing welfare dependency by 0.02 percentage points. This result is statistically significant at the 5% level.

7.3 Robustness Check

To test the robustness of the results some robustness checks have been made. These include testing the parallel trends assumption graphically and through event-study graphs and seeing if there are any compositional changes in the covariates after the treatment. The robustness checks of the high-educated individuals will not be presented here but can be found in Appendix 3, the results show that the parallel trends assumptions holds prior to the treatment.

7.3.1 Parallel Trends Assumption

In this section a graphical representation of the outcome variables have been made. The value on the Y-axis corresponds to the average level of the outcome variable and the X-axis indicates the year. The treatment group is represented by the dashed line and the control group by the full line. The vertical line indicates the year of treatment, being 2013. To validate the parallel trends assumption, we would want to see that the trend of the outcome variables prior to the treatment for both groups follow the same trend. With it fulfilled, we could assume that the outcome variable of the treatment group after the treatment would have followed the same trend as the control group, have they not been treated. Figure 1 presents the average unemployment rate of foreigners spanning from 2008 to 2018 and the parallel trends assumption seems to hold with it following a similar trend prior to the treatment. The welfare dependency of foreigners presented in Figure 2, does however show signs of violations to the parallel trends assumption. Though this method is not entirely final, this may imply that the results are inaccurate and should be taken with great caution. The unemployment rate of low-educated individuals is presented in Figure 3 and indicates that the parallel trends assumptions holds prior to the treatment. The welfare dependency of the low-educated individuals presented in Figure 4, does also have a similar trend for both groups with both trending upwards prior to the treatment. Conclusively, the parallel trends assumption is argued to be fulfilled for unemployment rate of foreigners, unemployment rate and welfare dependency of low-income individuals.

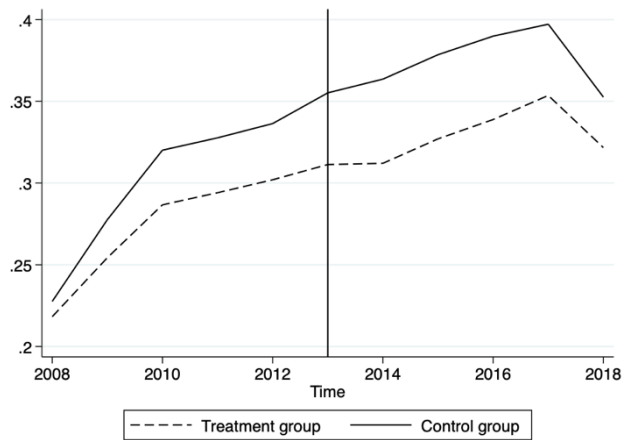


Figure 1 – Unemployment rate of foreigners

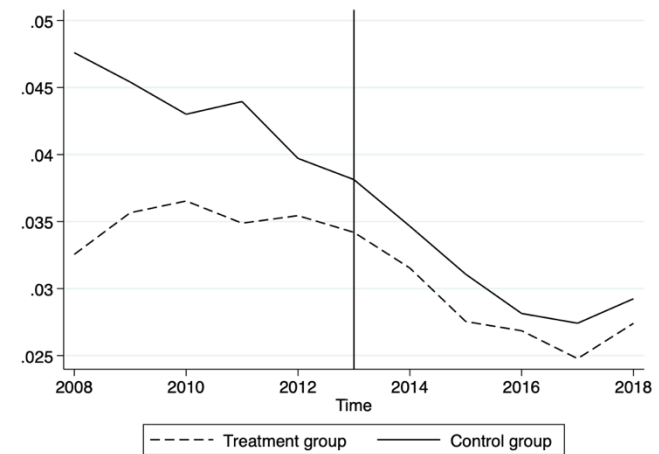


Figure 2 – Welfare dependency of foreigners

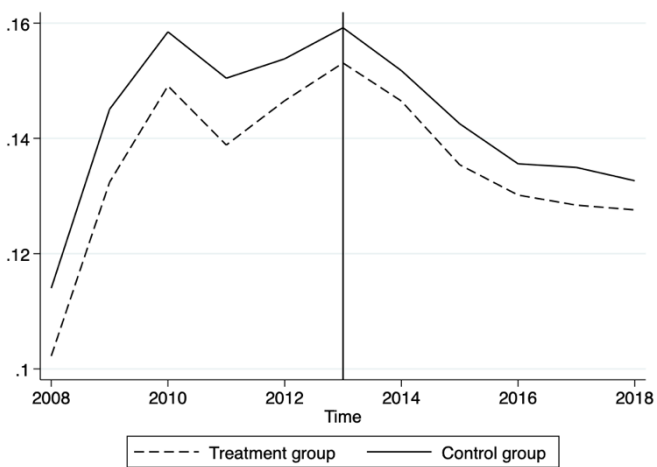


Figure 3 – Unemployment rate of low-edu. individ.

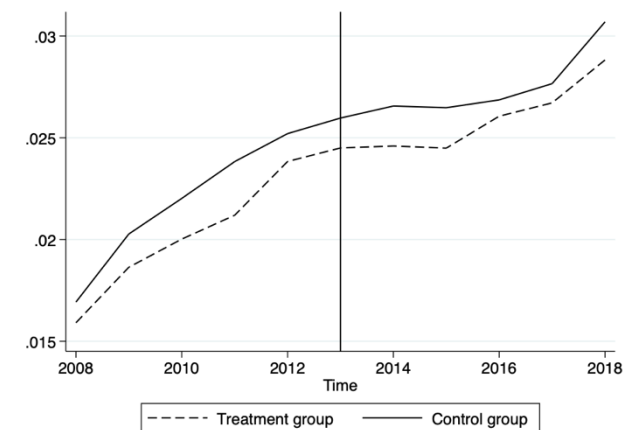


Figure 4 – Welfare dependency of low-edu. individ.

7.3.2 Event-Study Graphs

In this section an event-study of the policy has been done to both test if the parallel trends assumption holds and to see if the policy effects changes over time. The reference period is the year before the treatment occurs, being 2012. The dots in the graphs represent the point-estimate, being the estimated difference in the outcome variable for the treatment and control group in relation to the reference period. A positive point estimate after the treatment indicates that the estimated difference between groups increases when the treatment group receives treatment. The boundaries around the point-estimates indicates the 95% confidence intervals of the estimates. If the point estimates and their confidence intervals are small and not different from zero prior to the treatment then there are no subsequent differences between the treatment and control group, meaning that the parallel trend assumption holds.

For all event-studies presented in Figure 5-8 the estimates and their corresponding confidence intervals are non-different from zero before the treatment, thus indicating that the parallel trends assumption holds. This is important since the prior graphical test indicated on a violation of the parallel trends assumption for welfare dependency of foreigners. The point-estimates of the unemployment rate of foreigners presented in Figure 5 does also seem to decrease over time with some confidence intervals being different from zero. This implies that as time pass the unemployment rate decreases more indicating a lagged effect of the treatment. The point estimates of the remaining outcome variables, presented in Figure 6-8 does however seem to remain not different from zero after the treatment. This indicates a slight and/or insignificant effect on the outcome variables after the treatment which is corresponding to the results gained from the difference-in-differences estimates. The most prominent are Figure 7-8 where low-educated individuals do not seem to be affected by the treatment at all, corresponding with the small and insignificant results gained from the difference-in-differences analysis.

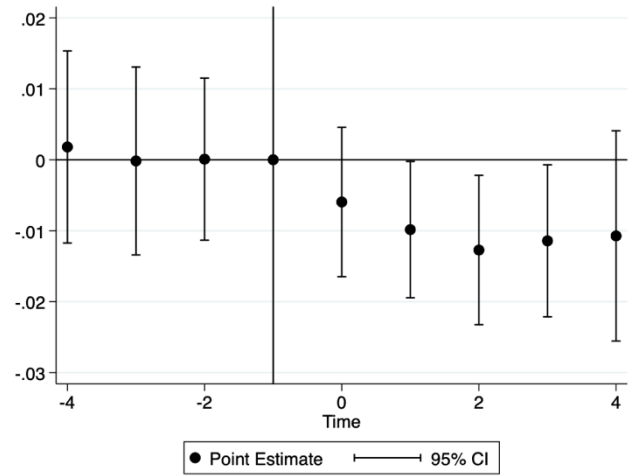


Figure 5 – Event study: Unemployment rate of foreigners

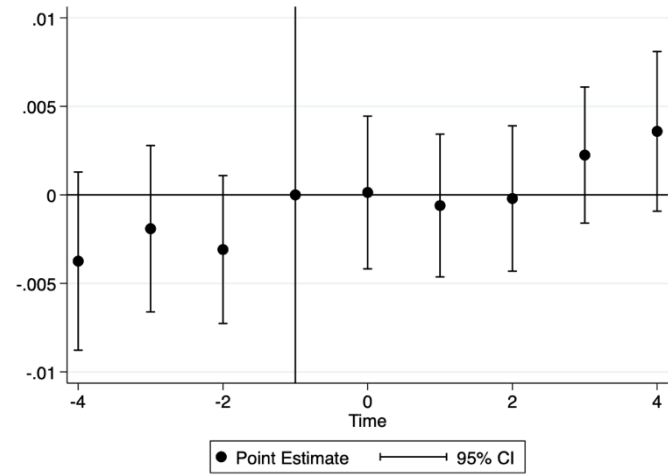


Figure 6 – Event study: Welfare dependency of foreigners

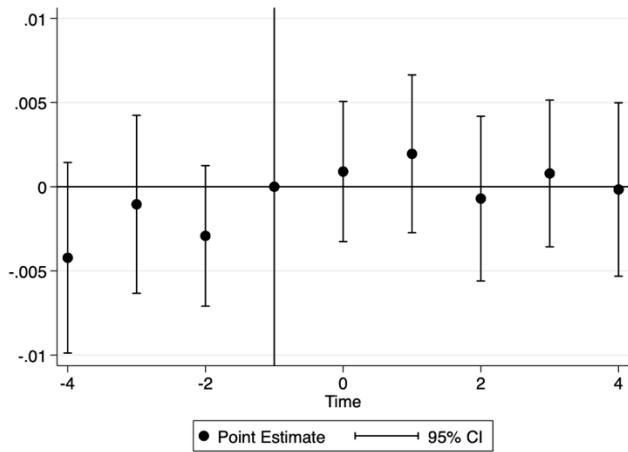


Figure 7 – Event study: Unemployment rate of low-edu. individ.

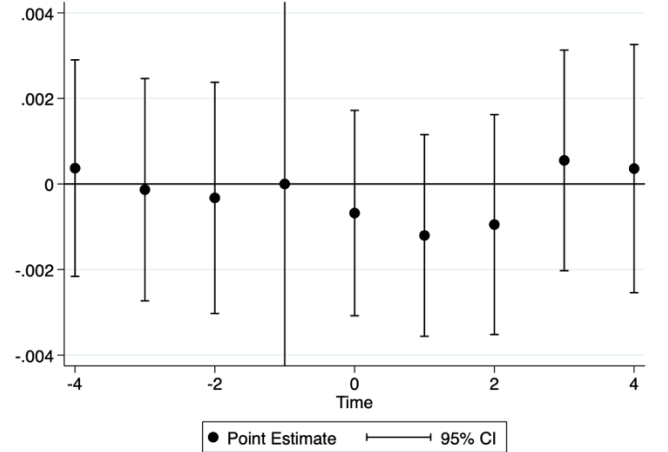


Figure 8 – Event study: Welfare dependency of low-edu. individ.

7.3.3 Compositional Change

In this section an analysis has been made to test if there are any compositional changes in the covariates within the treatment and control group before and after the treatment. The results are presented in Table 6.

Table 6 – Test for compositional change

Change prior/post treatment	Men	Log income	Foreigners	Age	Education
Treatment group	0.004	0.155	0.035	0.313	-0.029
Control group	0.004	0.160	0.033	0.358	-0.032

From Table 6 it is apparent that there are little to no drastic differences in the compositional changes between the treatment- and control group. Both groups have some increases and decreases in the covariates after the treatment, but since the differences are similar between group, this will not be a problem. One can therefore assume that there is no changes in the covariates that might have influenced the outcome variable other than the introduction of the policy, assuming the model is correctly specified.

8 Analysis

It is important to stress that the data is suboptimal given that the treatment status may be misspecified for some municipalities. However, it is reasonable to assume that the majority of municipalities in the treatment group is correctly specified thus making it possible to still capture an aggregated effect of the policy. It is also important to repeat that the policy analyzed covers only that of activation programs with a requirement of full-time participation for all ages. The municipalities in the control group still have requirements on participation in activation programs for all ages, but without it being full-time.

Further, the analysis relies on the assumptions made regarding which individuals are affected based on what perspective. Though the assumption are considered reasonable, there may be arguments against them. It is therefore important to state that the results and the corresponding analysis is based on the assumptions and that external validity may be limited.

8.1 Productivity Perspective

From the results presented in *Section 7.1* the policy seem to have a mixed effect on unemployment rate and welfare amongst foreigners. Given that the assumption regarding the productivity perspective holds, the full-time activation programs seem to have a positive effect on the welfare receptions ability to enter the labor market. From the productivity perspective the reason for this would be that those being unemployed and in need of welfare are so because of their inability to enter the labor market on their own. Having participated in an activation program, their competence increases making them more knowledgeable of the Swedish labor market as well as making them more employable. They then (re)enter the labor market and ceases to need welfare.

Further the results of the event-study regarding unemployment rate of foreigners show that the effect gets more prominent over time. This suggests either that it takes time

for municipalities to adapt their working methods to a new policy, or that those participating in the activation programs become more competent as time goes. Both suggestions are logical to the nature of the policy thus it is fair to assume that one will not be seeing immediate effects from this policy type.

Contrary to what one would assume, the results showed an increased welfare dependency amongst foreigners after the treatment. Meaning that more foreigners enter the labor market and more foreigners also become dependent on welfare. This corresponds with the findings in previous research where activation programs leads to more individuals leaving welfare rather than fewer entering. Though even if the significance of these results are great, the magnitude of the effect is relatively small and through the event-study graph, non-different from zero. This could simply imply that the effect on welfare dependency is rather insignificant.

A problem that could have arisen of this analysis is the influx of foreigners to Sweden in the immigrant crisis of 2015/2016. Since the municipalities who has requirements regarding full time tends to have a lower unemployment rate and welfare dependency of foreigners than those who do not, one could assume that there are other unaccounted for characteristics that may influence the willingness to accept foreigners. Meaning that at the influx of foreigners, the municipalities in the treatment group would have a lesser increase of foreigners than those in the control group. This problem can however be disregarded from the results of the compositional change check where both the treatment- and control group had a very similar increase of foreigners during the post treatment period.

8.2 Sorting Perspective

The results in *Section 7.2* point towards an insignificant effect of the policy of, seen from a sorting perspective. The increase in unemployment though having a statistical significance, is small in its magnitude. An increase of approximates 0.3 percentage

points combined with the stable point estimates around zero, indicates that the policy has no economic significance on the unemployment rate. Relating the findings to the theories some conclusions could be made. Either the welfare recipients participate in the activation programs since they really are unable to find a job on their own thus requiring full-time participation does not affect the unemployment rate more than not. Or it could simply imply that the disutility of full-time requirements do not differ drastically to that of no full-time. This makes sense in the theory of Kreiner and Tranaes where the authors suggests that task-workfare is more effective than time-workfare. One could therefore assume that if the municipalities who have requirements on time would instead have requirements on tasks, the policy would be more impactful through this perspective.

Regarding the welfare dependency of low-educated individuals, no significance whether being statistical or economic could be found. This corresponds to the results regarding unemployment rate and the same arguments could be made regarding this. Do we not see a great impact on the unemployment rate, then we will probably not see a great impact on the welfare dependency.

The further analysis of high-educated individuals mirrors the findings observed among low-educated individuals with respect to unemployment rates. With neither presenting statistically nor practically significant results, the conclusion remains that full-time activation programs does not have a dominant sorting effect. The impact on welfare dependency also follows a similar trend. While the results bear more statistical significance in this case, the actual magnitude of the effect remains relatively insignificant, further underscoring the limited influence of the sorting effect.

8.3 Conclusion

Overall, the observed effect of the policy on welfare dependency has been small and insignificant, suggesting that requiring full-time participation in activation programs

as a condition for receiving welfare has little to no impact on the number of individuals who rely on welfare. This finding contradicts both the sorting- and productivity perspectives that argue stricter requirements for welfare would lead to fewer people needing or wanting such assistance. One possible explanation for this discrepancy is that the individuals entering welfare dependency are not captured in the unemployment statistics, as they may require welfare benefits for reasons other than unemployment. Consequently, while the number of people receiving welfare due to unemployment may decrease, those needing welfare for other reasons could either increase or remain the same. Without individual-level data, this cannot be reasoned further.

Regarding the unemployment rate, the policy seems to have a more dominant productivity effect rather than a sorting effect. This supports that activation programs are not unproductive, but rather help welfare recipients find employment. However, this does not mean that the sorting perspective is entirely ineffective. It could be that full-time activation programs still provide equal or greater utility compared to the labor market, meaning that the policy does not effectively function as a screening or deterring mechanism. Alternatively, it could be that those who falsely claim to need welfare are predominantly young individuals who have already been addressed by the implementation of the law in 1998.

In conclusion, my findings reveal that the policy of full-time participation in activation programs leads to no great significant effects on welfare dependency for both foreigners and low-educated individuals. However, the policy does show a slight positive effect on the unemployment rate of low-educated individuals and a strong negative effect on the unemployment rate of foreigners. These findings suggest that the productivity perspective has a more dominant impact in full-time activation programs than the sorting perspective. Consequently, to further enhance this effect, it is beneficial for municipalities to place greater emphasis on the content of their activation programs to further assist welfare recipients in the future.

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Appendix

Appendix 1 Municipality Policy Status

Municipality	Policy	Municipality	Policy
Upplands Väsby kommun	Not full-time	Ale kommun	Not full-time
Vallentuna kommun	Full-time	Lerums kommun	Not full-time
Österåkers kommun	Full-time	Vårgårda kommun	Not full-time
Värmdö kommun	Not full-time	Bollebygds kommun	Not full-time
Järfälla kommun	Full-time	Grästorps kommun	Not full-time
Ekerö kommun	Not full-time	Essunga kommun	Not full-time
Huddinge kommun	Full-time	Karlsborgs kommun	Not full-time
Botkyrka kommun	Not full-time	Gullspångs kommun	Not full-time
Salems kommun	Not full-time	Tranemo kommun	Not full-time
Haninge kommun	Not full-time	Bengtsfors kommun	Not full-time
Tyresö kommun	Full-time	Melleruds kommun	Not full-time
Upplands-Bro kommun	Full-time	Lilla Edets kommun	Not full-time
Nykvarns kommun	Not full-time	Marks kommun	Full-time
Täby kommun	Not full-time	Svenljunga kommun	Not full-time
Danderyds kommun	Not full-time	Herrljunga kommun	Not full-time
Sollentuna kommun	Full-time	Vara kommun	Not full-time
Stockholms stad	Full-time	Götene kommun	Not full-time
Södertälje kommun	Full-time	Tibro kommun	Not full-time
Nacka kommun	Full-time	Töreboda kommun	Not full-time
Sundbybergs stad	Not full-time	Göteborgs stad	Not full-time
Solna stad	Full-time	Mölnåls stad	Not full-time
Lidingö stad	Full-time	Kungälv kommun	Not full-time
Vaxholms stad	Full-time	Lysekils kommun	Not full-time
Norrälje kommun	Not full-time	Uddevalla kommun	Not full-time
Sigtuna kommun	Full-time	Strömstads kommun	Not full-time
Nynäshamns kommun	Not full-time	Vänersborgs kommun	Not full-time
Häbo kommun	Not full-time	Trollhättans stad	Not full-time
Älvkarleby kommun	Full-time	Alingsås kommun	Full-time
Knivsta kommun	Not full-time	Borås stad	Not full-time
Heby kommun	Not full-time	Ulricehamns kommun	Not full-time
Tierps kommun	Not full-time	Åmåls kommun	Not full-time
Uppsala kommun	Full-time	Mariestads kommun	Not full-time
Enköpings kommun	Full-time	Lidköpings kommun	Not full-time
Östhammars kommun	Not full-time	Skara kommun	Not full-time
Vingåkers kommun	Not full-time	Skövde kommun	Full-time
Gnesta kommun	Not full-time	Hjo kommun	Not full-time
Nyköpings kommun	Full-time	Tidaholms kommun	Not full-time
Oxelösunds kommun	Not full-time	Falköpings kommun	Not full-time
Flens kommun	Not full-time	Kils kommun	Not full-time
Katrineholms kommun	Not full-time	Eda kommun	Not full-time
Eskilstuna kommun	Not full-time	Torsby kommun	Not full-time
Strängnäs kommun	Not full-time	Storfors kommun	Not full-time

Trosa kommun	Not full-time	Hammarö kommun	Not full-time
Ödeshögs kommun	Not full-time	Munkfors kommun	Not full-time
Ydre kommun	Not full-time	Forshaga kommun	Not full-time
Kinda kommun	Not full-time	Grums kommun	Not full-time
Boxholms kommun	Not full-time	Årjängs kommun	Not full-time
Åtvidabergs kommun	Not full-time	Sunne kommun	Not full-time
Finspångs kommun	Not full-time	Karlstads kommun	Not full-time
Valdemarsviks kommun	Not full-time	Kristinehamns kommun	Not full-time
Linköpings kommun	Full-time	Filipstads kommun	Full-time
Norrköpings kommun	Not full-time	Hagfors kommun	Not full-time
Söderköpings kommun	Full-time	Arvika kommun	Not full-time
Motala kommun	Not full-time	Säffle kommun	Not full-time
Vadstena kommun	Not full-time	Lekebergs kommun	Not full-time
Mjölby kommun	Not full-time	Laxå kommun	Not full-time
Aneby kommun	Not full-time	Hallsbergs kommun	Full-time
Gnosjö kommun	Full-time	Degerfors kommun	Not full-time
Mullsjö kommun	Not full-time	Hällefors kommun	Full-time
Habo kommun	Full-time	Ljusnarsbergs kommun	Not full-time
Gislaveds kommun	Full-time	Örebro kommun	Not full-time
Vaggeryds kommun	Not full-time	Kumla kommun	Full-time
Jönköpings kommun	Not full-time	Askersunds kommun	Not full-time
Nässjö kommun	Not full-time	Karlskoga kommun	Not full-time
Värnamo kommun	Full-time	Nora kommun	Not full-time
Sävsjö kommun	Not full-time	Lindesbergs kommun	Full-time
Vetlanda kommun	Not full-time	Skinnskattebergs kommun	Not full-time
Eksjö kommun	Not full-time	Surahammars kommun	Not full-time
Tranås kommun	Not full-time	Kungsörs kommun	Full-time
Uppvidinge kommun	Not full-time	Hallstahammars kommun	Not full-time
Lessebo kommun	Not full-time	Norbergs kommun	Not full-time
Tingsryds kommun	Not full-time	Västerås stad	Not full-time
Alvesta kommun	Full-time	Sala kommun	Not full-time
Älmhults kommun	Full-time	Fagersta kommun	Not full-time
Markaryds kommun	Full-time	Köpings kommun	Not full-time
Växjö kommun	Full-time	Arboga kommun	Not full-time
Ljungby kommun	Full-time	Vansbro kommun	Not full-time
Högsby kommun	Not full-time	Malung-Sälens kommun	Not full-time
Torsås kommun	Not full-time	Gagnefs kommun	Not full-time
Mörbylånga kommun	Not full-time	Leksands kommun	Full-time
Hultsfreds kommun	Not full-time	Rättviks kommun	Not full-time
Mönsterås kommun	Not full-time	Orsa kommun	Not full-time
Emmaboda kommun	Not full-time	Älvdalens kommun	Not full-time
Kalmar kommun	Not full-time	Smedjebackens kommun	Not full-time
Nybro kommun	Not full-time	Mora kommun	Not full-time
Oskarshamns kommun	Not full-time	Falu kommun	Not full-time
Västerviks kommun	Not full-time	Borlänge kommun	Not full-time
Vimmerby kommun	Full-time	Sätters kommun	Full-time

Borgholms kommun	Not full-time	Hedemora kommun	Not full-time
Region Gotland	Not full-time	Avesta kommun	Not full-time
Olofströms kommun	Not full-time	Ludvika kommun	Not full-time
Karlskrona kommun	Full-time	Ockelbo kommun	Not full-time
Ronneby kommun	Not full-time	Hofors kommun	Not full-time
Karlshamns kommun	Full-time	Ovanåkers kommun	Not full-time
Sölvesborgs kommun	Full-time	Nordanstigs kommun	Full-time
Svalövs kommun	Not full-time	Ljusdals kommun	Not full-time
Staffanstorps kommun	Full-time	Gävle kommun	Not full-time
Burlövs kommun	Full-time	Sandvikens kommun	Full-time
Vellinge kommun	Full-time	Söderhamns kommun	Not full-time
Östra Göinge kommun	Full-time	Bollnäs kommun	Not full-time
Örkelljunga kommun	Not full-time	Hudiksvalls kommun	Not full-time
Bjuvs kommun	Not full-time	Ånge kommun	Not full-time
Kävlinge kommun	Full-time	Timrå kommun	Not full-time
Lomma kommun	Not full-time	Härnösands kommun	Full-time
Svedala kommun	Not full-time	Sundsvalls kommun	Not full-time
Skurups kommun	Full-time	Kramfors kommun	Not full-time
Sjöbo kommun	Not full-time	Sollefteå kommun	Not full-time
Hörby kommun	Full-time	Örnsköldsviks kommun	Not full-time
Höørs kommun	Full-time	Ragunda kommun	Not full-time
Tomelilla kommun	Not full-time	Bräcke kommun	Not full-time
Bromölla kommun	Not full-time	Krokoms kommun	Not full-time
Osby kommun	Not full-time	Strömsunds kommun	Full-time
Perstorps kommun	Not full-time	Åre kommun	Not full-time
Klippans kommun	Full-time	Bergs kommun	Not full-time
Åstorps kommun	Not full-time	Härjedalens kommun	Not full-time
Bästads kommun	Not full-time	Östersunds kommun	Not full-time
Malmö stad	Not full-time	Nordmalings kommun	Not full-time
Lunds kommun	Not full-time	Bjurholms kommun	Not full-time
Landskrona stad	Not full-time	Vindelns kommun	Not full-time
Helsingborgs stad	Full-time	Robertsfors kommun	Not full-time
Höganäs kommun	Not full-time	Norsjö kommun	Not full-time
Eslövs kommun	Full-time	Malå kommun	Not full-time
Ystads kommun	Full-time	Storumans kommun	Full-time
Trelleborgs kommun	Full-time	Sorsele kommun	Not full-time
Kristianstads kommun	Full-time	Dorotea kommun	Not full-time
Simrishamns kommun	Not full-time	Vännäs kommun	Not full-time
Ängelholms kommun	Not full-time	Vilhelmina kommun	Not full-time
Hässleholms kommun	Not full-time	Åsele kommun	Not full-time
Hylte kommun	Not full-time	Umeå kommun	Not full-time
Halmstads kommun	Not full-time	Lycksele kommun	Not full-time
Laholms kommun	Full-time	Skellefteå kommun	Not full-time
Falkenbergs kommun	Not full-time	Arvidsjaur kommun	Not full-time
Varbergs kommun	Not full-time	Arjeplogs kommun	Not full-time
Kungsbacka kommun	Full-time	Jokkmokks kommun	Not full-time

Härryda kommun	Not full-time	Överkalix kommun	Not full-time
Partille kommun	Not full-time	Kalix kommun	Not full-time
Öckerö kommun	Not full-time	Övertorneå kommun	Not full-time
Stenungssund kommun	Not full-time	Pajala kommun	Not full-time
Tjörns kommun	Not full-time	Gällivare kommun	Not full-time
Orust kommun	Not full-time	Älvsbyns kommun	Full-time
Sotenäs kommun	Not full-time	Luleå kommun	Not full-time
Munkedals kommun	Not full-time	Piteå kommun	Not full-time
Tanums kommun	Not full-time	Bodens kommun	Not full-time
Dals-Eds kommun	Not full-time	Haparanda stad	Not full-time
Färgelanda kommun	Full-time	Kiruna kommun	Not full-time

Source: Att ställa krav är att bry sig – Hur många av Sveriges kommuner bryr sig? (Moderata Ungdomsförbundet, 2023).

Appendix 2 Descriptive Statistics

Table A. Descriptive statistics of outcome variables and covariates for the treatment group, year 2008-2018.

Variable	Observation	Mean	Std. dev.	Min	Max
U.rate of foreigners	561	.2293619	.0839034	.053	.522
Welfare of foreigners	499	.0210301	.0132897	.001	.077
U.rate of low-edu.	561	.1354742	.0318915	.049	.235
Welfare of low-edu.	526	.0232624	.0149595	.003	.089
U.rate of high-edu.	561	.0901159	.0282362	.032	.198
Welfare of high-edu.	333	.003033	.0025416	0	.018
Year	561	2013	3.1651	2008	2018
Population	561	39891.08	38134.15	6495	225164
Men	561	.5032646	.0069642	.4789497	.5212126
Log income	561	5.676358	.1615435	5.404478	6.273066
Foreigners	561	.1450461	.0645493	.0495656	.4009714
Education	561	.1552221	.0383038	.0727486	.2684821

Table B. Descriptive statistics of outcome variables and covariates for the control group, year 2008-2018.

Variable	Observation	Mean	Std. dev.	Min	Max
U.rate of foreigners	2,629	.2516611	.0830559	.064	.553
Welfare of foreigners	2,026	.0239763	.0140997	0	.105
U.rate of low-edu.	2,629	.1434949	.0373022	.04	.393
Welfare of low-edu.	2,224	.0247986	.0146579	.003	.105
U.rate of high-edu.	2,629	.0961149	.0286114	.025	.216
Welfare of high-edu.	1,093	.0032534	.0020744	0	.017
Year	2,629	2013	3.162879	2008	2018
Population	2,629	32050.69	72793.11	2421	962154
Men	2,629	.5053626	.0082164	.4818941	.5360947
Log income	2,629	5.62328	.1331591	5.288772	6.456298
Foreigners	2,629	.1206501	.0579576	.0335709	.4210577
Education	2,629	.164257	.0318503	.0643126	.2654902

Appendix 3 Robustness Check: High-Educated Individuals

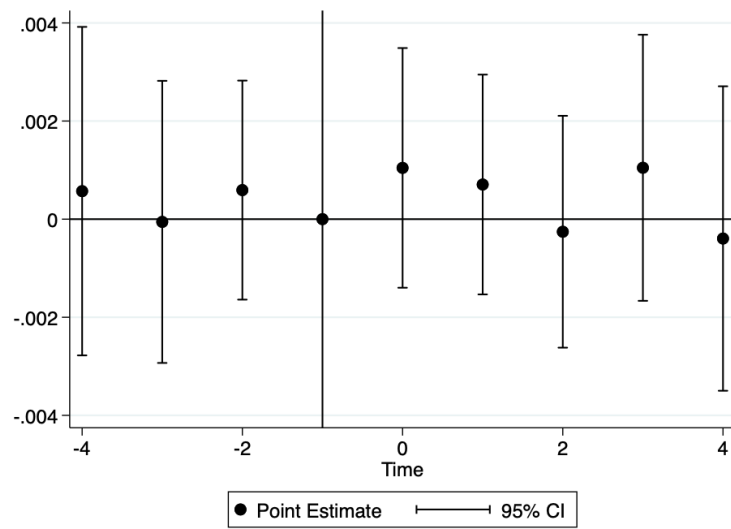


Figure A. Event study graph: Unemployment rate of high-educated individuals

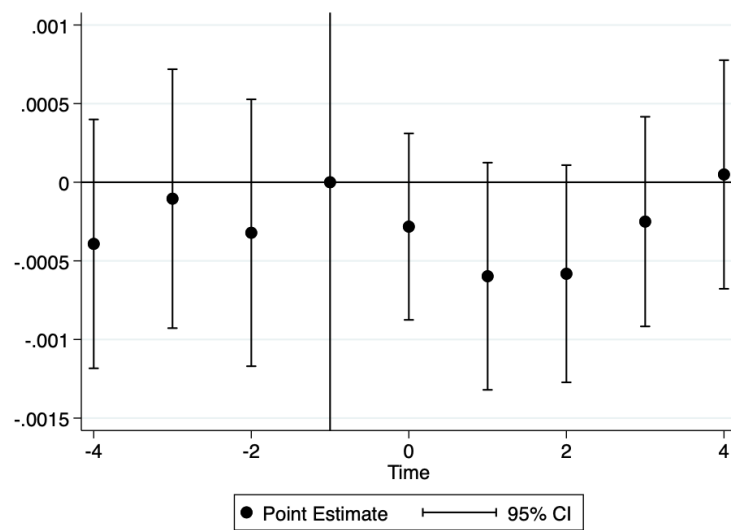


Figure B. Event study graph: Unemployment rate of high-educated individuals