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## Institutions and labor market outcomes in the Netherlands

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LABOUR MARKET POLICY  
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# **Institutions and labor market outcomes in the Netherlands**

Pieter A. Gautier  
Bas van der Klaauw

WORKING PAPER 2009:28

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# Institutions and labor market outcomes in the Netherlands

by

Pieter A. Gautier<sup>§</sup> and Bas van der Klaauw<sup>a</sup>

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## Abstract

In this paper we provide a description of the labor market in the Netherlands. Compared to other OECD countries labor force participation is high and the unemployment rate is low (also for young workers). Among the unemployed there are, however, relatively many long-term unemployed workers. Labor force participation of older workers is increasing but still low and Dutch workers have relatively low working hours. Disability is high, particularly among young individuals. We discuss the relevant labor market institutions in the Netherlands and use recent reforms to assess the importance of the different reforms. Where possible we provide an international comparison. We find that inflow into benefits programs responds to (financial) incentives. The outflow is much more difficult to affect, in particular we could not find any evidence of substantial positive effects of active labor market programs (which are frequently offered in the Netherlands).

Keywords: institution, incentives, labor market reforms, participation, unemployment, disability.

JEL-codes: H21, H53, H55, J08, J21, J22, J26, J68

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# 1 Introduction

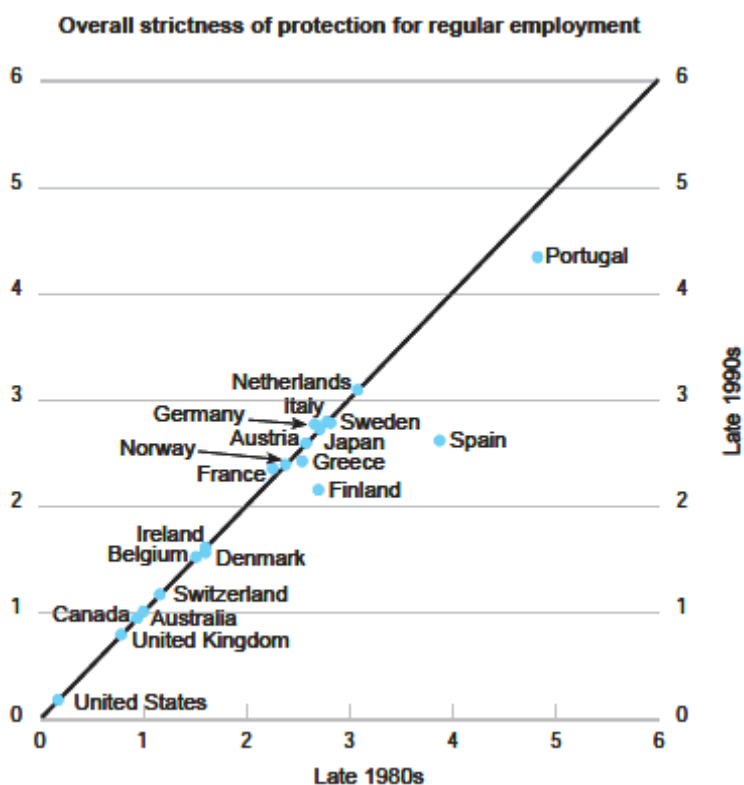
During the past few years the Netherlands experienced some major reforms, which reduced the generosity of the unemployment insurance and the disability insurance programs. Also tax rules were changed to stimulate working for second earners, and the tax advantages for early retirement were abandoned. During this period of reforms the number of benefits recipients reduced substantially and labor force participation rates increased. In this paper we review these reforms and assess the impact of the reforms on labor market outcomes. Institutional changes often provide excellent opportunities to identify incentive effects and behavioral responses. In particular unanticipated reforms can be thought of as exogenous shifts in how people are treated.

Compared to other OECD countries, the Netherlands has relatively high labor force participation, particularly among young workers and a very low unemployment rate. However, the Netherlands has a relatively high paying disability insurance program with increasing number of young handicapped workers and a high fraction of long-term unemployed workers. Furthermore, employed individuals work often part-time and therefore have low average working hours. Finally, labor force participation rates of older workers are increasing, but are still low.

The Netherlands is the country with the highest expenditures on active labor market programs in the OECD. However, no evaluation of a specific programs has indicated substantial positive effects on labor market outcomes. Overall, it seems that affecting the inflow in benefits programs is much easier than stimulating the outflow. This is likely to be the consequence of the relatively high job protection in the Netherlands, which makes the labor market inflexible. Even though union membership is very limited, the trade unions have much power. The unions participate in collective bargaining, and government always declares the agreements from this bargaining binding from all firms in the sector.

The Netherlands Bureau for Economic Policy Research (CPB) predicted at the end of 2008 that in 2009 the unemployment rate within the Netherlands would double. Even though the Dutch government did not intervene with very substantial policy measures the rise in unemployment is so far limited. An explanation for this limited increase in

the unemployment rate is that just before the financial crisis the labor market was very tight, and many firms actually had a shortage of labor. Furthermore, strong employment protection reduces the rate at which unemployment can increase. *Figure 1* shows that employment protection is quite strict in the Netherlands.



**Figure 1** Employment protection

Source OECD 2006

The remainder of the paper is organized as follows. Section 2 provides background information about the Netherlands. In this section we first provide information about the socioeconomic situation and then we discuss the tax and benefit systems. Section 3 discusses some recent reforms, section 4 discusses the effects of those reforms and finally, section 5 concludes.

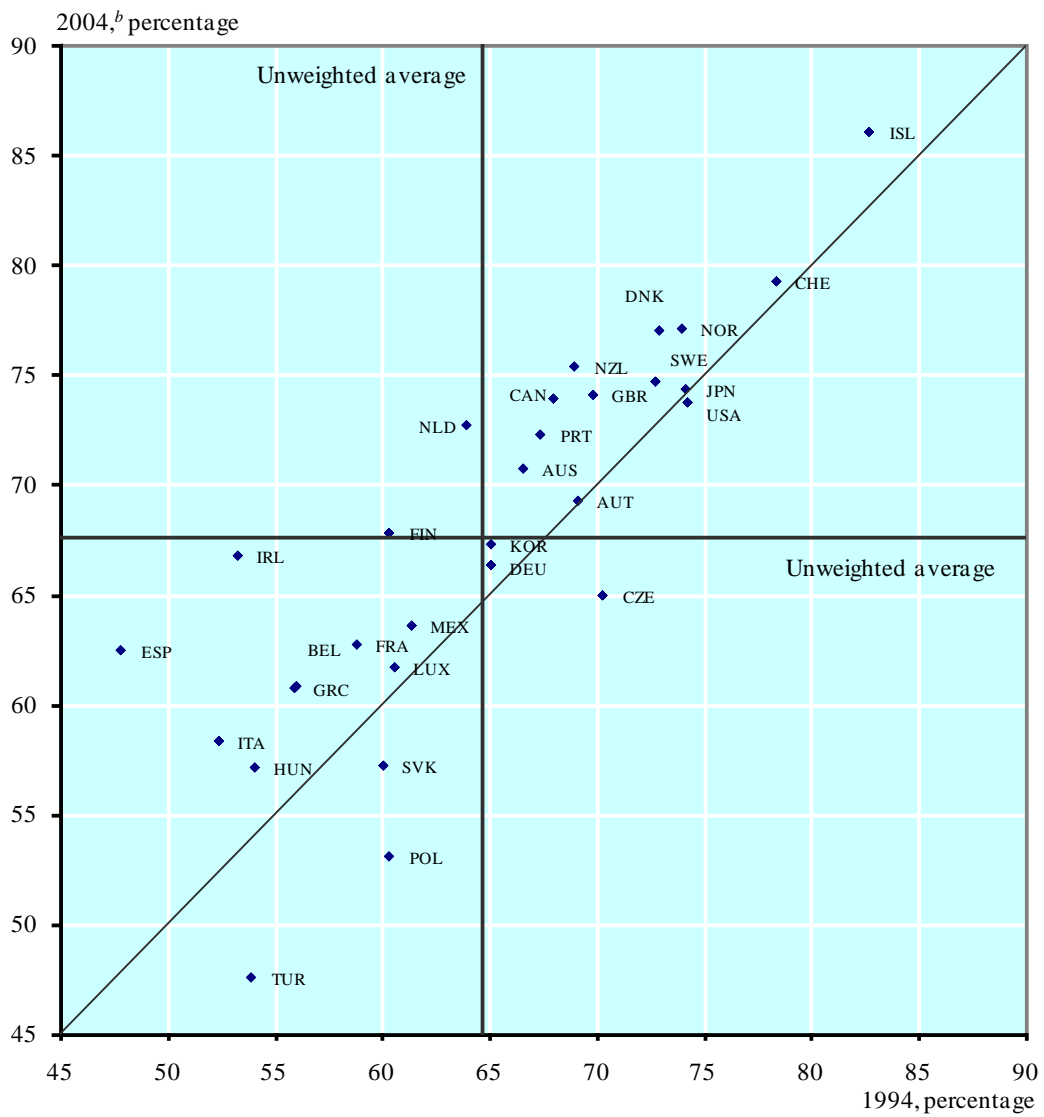
## 2 Background

### 2.1 Introduction

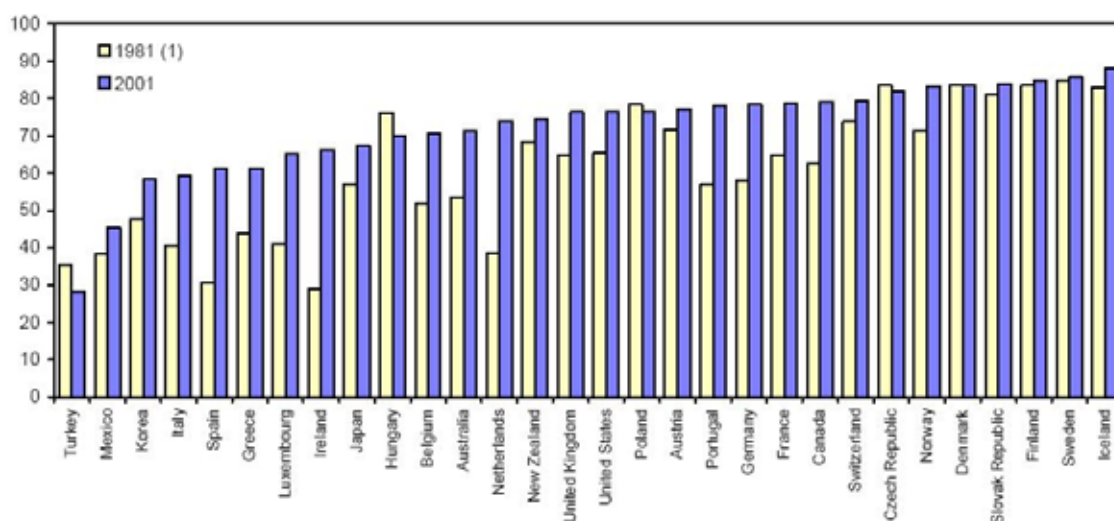
We start with discussing the general economic situation in the Netherlands. The statistics we use are from Statistics Netherlands (CBS), the OECD and the Netherlands Bureau for Economic Policy Research (CPB).

From 1970 to 2007 the Dutch population has grown from about 13 million to 16.4 million inhabitants. During the same period, also the age structure in the population changed. The fraction of individuals between 15 and 64 years old increased from 62.6% in 1970 to 69.0% in 1989. After 1989 this fraction slightly decreased to a level of 67.3% in 2007. The labor force participation (of individuals between 20 and 64) changed dramatically. *Figure 2* shows that between 1994 and 2004 labor force participation increased relative to other OECD countries. In 1970, 93% of the men and 31% of the women worked in a job of at least 12 hours. Female labor force participation has steadily increased since the mid seventies to 65% in 2007, while male labor force participation has remained at 82% during the last decade. *Figure 3* shows that between 1981 and 2001 Dutch female labor force participation increased from among the lowest among OECD countries to about the OECD average. However, in 1970 workers worked on average 90.7% of a full-time week, while this decreased to 78.4% in 2007. *Figure 4* shows that even though average hours worked increased between 1994 and 2004, the Netherlands are still among the countries with the lowest working hours. Part-time work is particularly popular among women. According to OECD (2004) part-time work (working less than 30 hours per week) among women is much higher than in any other OECD country (see *Figure 5*). *Figure 6* shows that compared to other OECD countries the labor force participation of older workers is relatively low, in particular if you take into account the relatively high labor force participation of workers between 25 and 49 years old.





**Figure 2** Labor force participation within the OECD.



1. 1983 for Greece and Luxembourg, 1986 for New Zealand, 1988 for Turkey, 1991 for Switzerland, Iceland, and Mexico, 1992 for Hungary and Poland, 1993 for the Czech Republic, 1994 for Austria and the Slovak Republic.

Source: OECD Labour Market Statistics.

**Figure 3** Female labor force participation.

Since the mid seventies the fraction of the population between 15 and 24 years in full-time education is constant (about 12%). However, the fraction of benefits recipients in the population varied substantially. In 1970 about 9% received either unemployment, welfare or disability benefits or sickness pay. This percentage increased to 22% in 1994, which coincides with the end of the recession at the beginning of the nineties. Since 1994 the fraction of benefits recipients decreased to 16% in 2007. The reduction was mainly in unemployment, welfare and disability benefits recipients (sick pay receipt remained relatively constant).

In 1970, the unemployment rate was only 0.6% but it increased to 9.6% in 1984. In 1994, the unemployment rate was still 8.6%, but decreased rapidly to less than 4% in 2000. After that the unemployment rate fluctuated, and was about 4.5% in 2007. As can be seen in *Figure 7* during the last few years the Dutch unemployment rate was the lowest within the OECD. In 2007 there were about 344,000 unemployed workers. At the same time there were 226,000 vacancies, which is 2.8% of total employment.

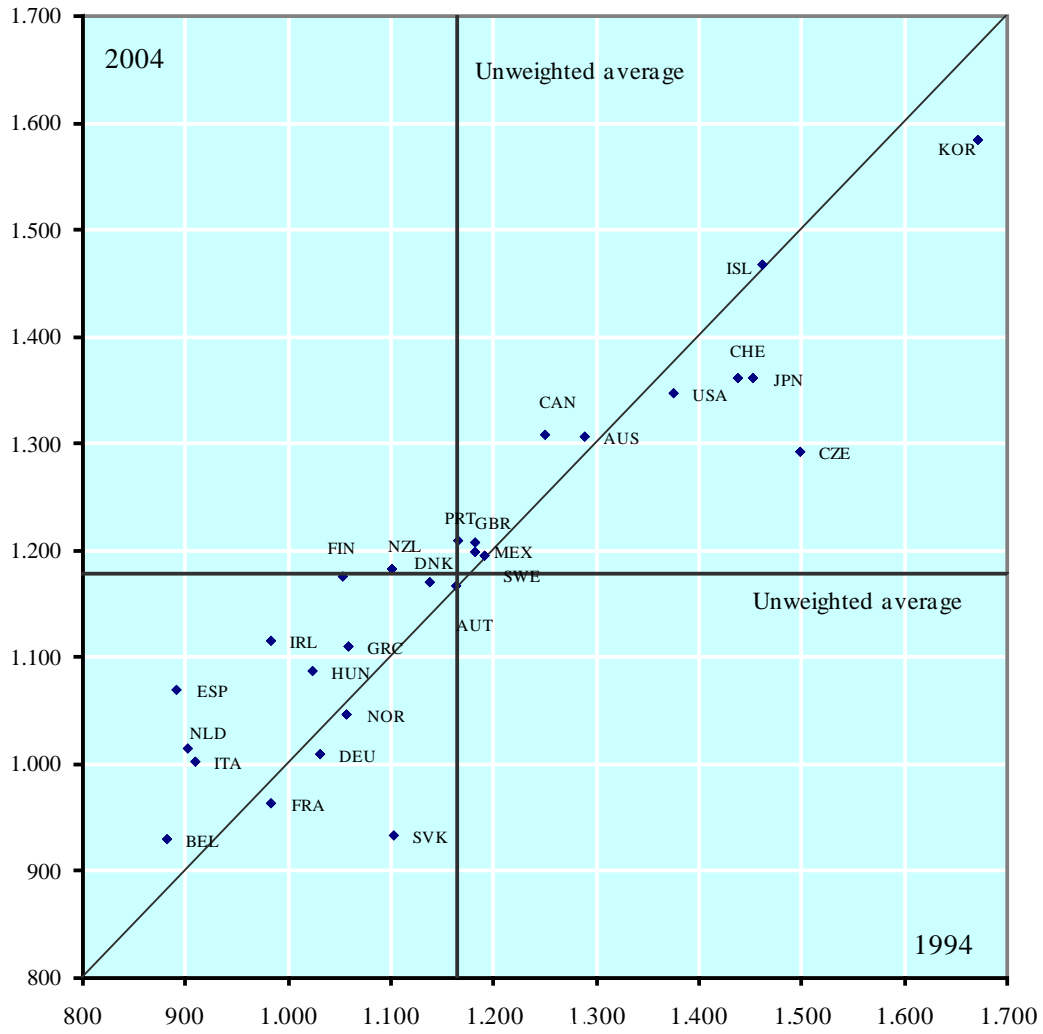
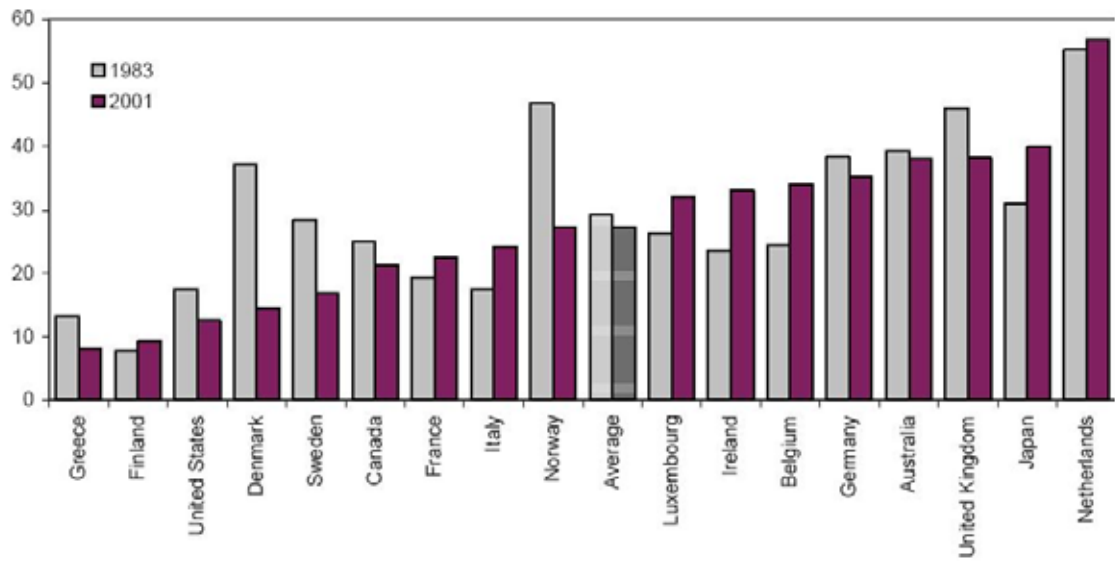


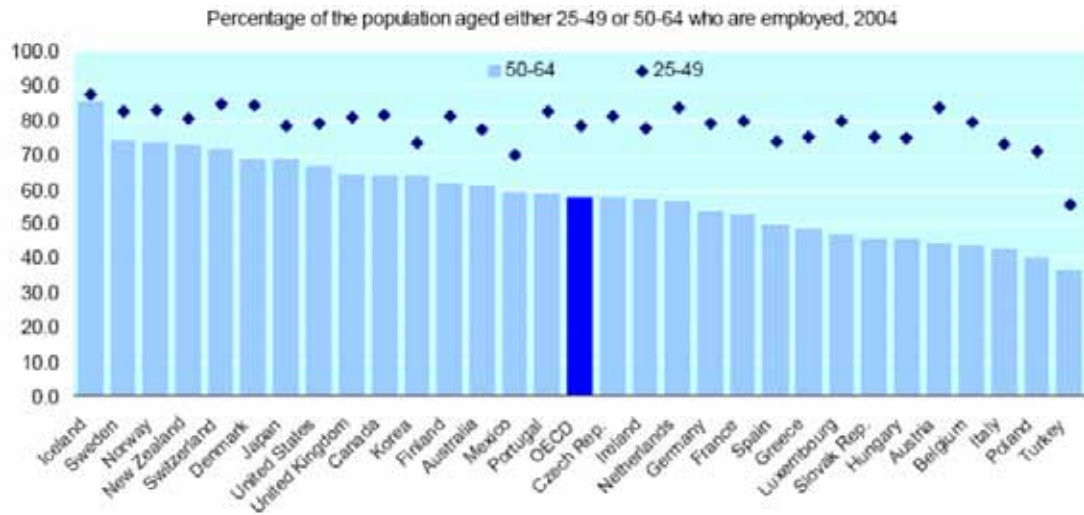
Figure 4 Hours worked within the OECD.



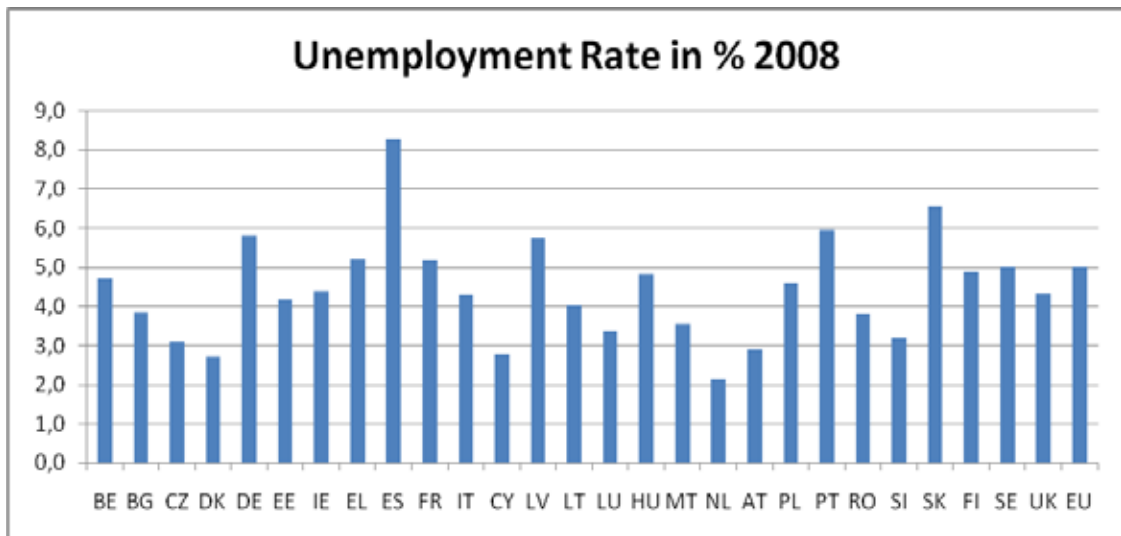
1. Part-time employment refers to persons who usually work less than 30 hours per week in their main job. Data include only persons declaring usual hours. For Australia, part-time data are based on actual hours worked, and include hours worked at all jobs. For Japan, part-time data are based on actual hours worked and defined as less than 35 hours per week. For the USA, the share of part-time in employment is for wage and salary workers only.

Sources: OECD Labour Market Statistics.

**Figure 5** Female part-time work.



**Figure 6** Labor force participation of older workers.



**Figure 7** Unemployment within Europe.

It is insightful to briefly consider the composition of the unemployed workers. In 2007 the youth unemployment rate (age 15 to 24) was 9.2% in the Netherlands, which is low compared to other OECD countries (see *Figure 8* and the discussion in Kluve et al., 2007). The Dutch unemployed population is mainly concentrated towards long-term unemployed workers, which is above the OECD average (see *Figure 9*). About 42% of all unemployed workers are long-term unemployed, and of these long-term unemployed workers 56% is above age 45. This suggests that the risks of becoming unemployed are relatively low, but once someone becomes unemployed the job finding rate is also low.

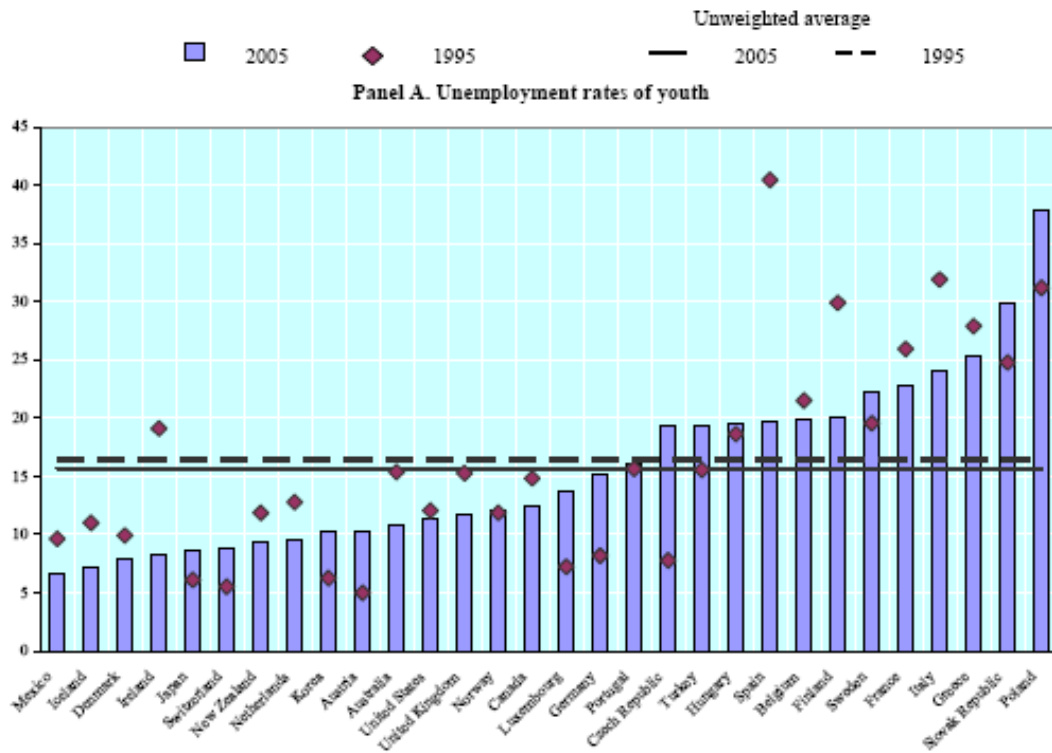


Figure 8 Youth unemployment within the OECD.

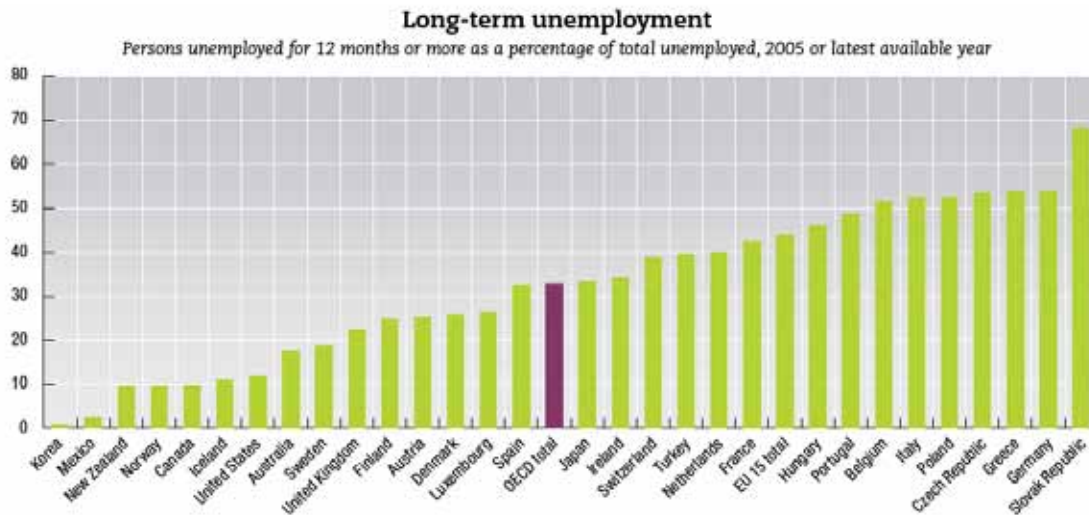
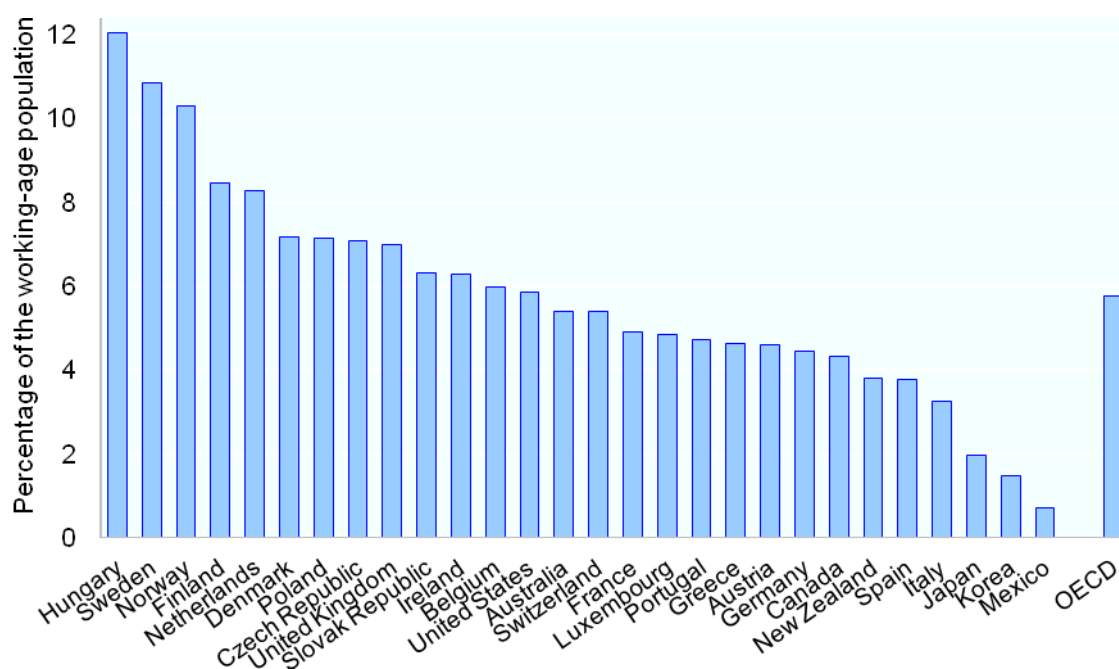


Figure 9 Long-term unemployment within the OECD.

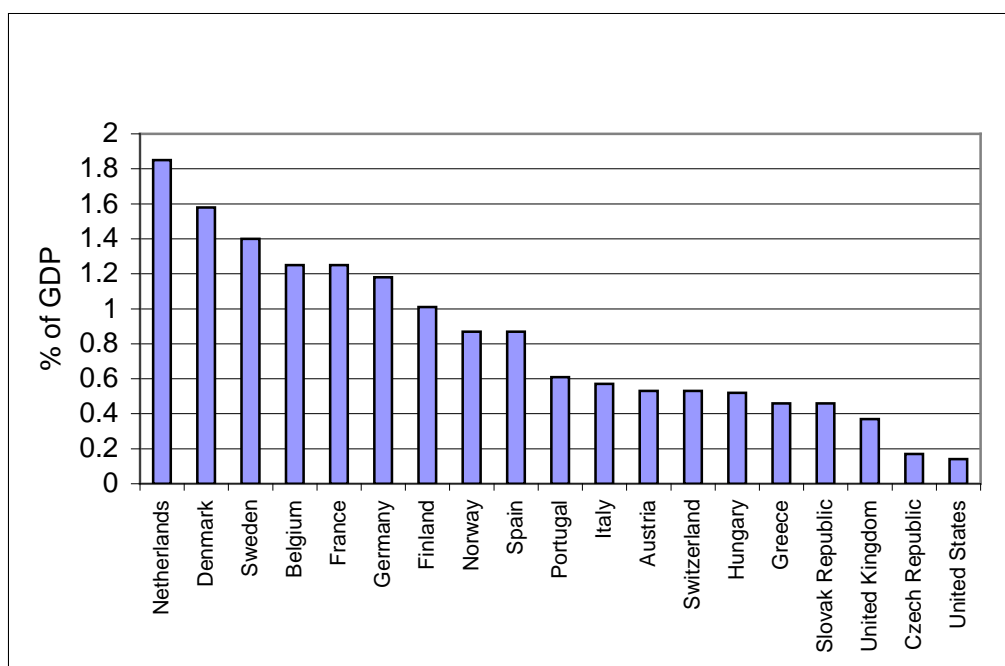
In 2007 about 831,000 individuals were collecting some type of disability insurance benefit. Compared to other OECD countries the Dutch disability insurance program is very large (see Figure 10), and during the Seventies and the Eighties it was notorious

for its excessive growth. In 2000, 9.1% of the working force collected disability insurance benefits, with total expenditures as high as 2.65% of GDP. However, the number of beneficiaries has been decreasing rapidly since 2002. The only group which shows an increasing trend is individuals under age 25. These individuals usually enter a specific program for youth handicapped (*WAJong*), which covers individuals who do not have any work history. In 2007 the fraction receiving *WAJong* benefits within the population of disabled was 20%. But this was only 14% in 2004.



**Figure 10** Disability benefits within the OECD.

In 2007 the Dutch GDP was 569 billion euro, and the average annual income of a worker was 32,300 euro. The expenses on unemployment insurance benefits were 2.86 billion euro, and on average in 2007 191,970 individuals were collecting these benefits. In 2007, there were about 304,710 welfare recipients and total expenses on welfare were 3.94 billion euro. Total expenses on disability insurance were 10.14 billion euro. Furthermore, spending on active labor market policies are about 1.8% of GDP, which is high compared to other European countries (see *Figure 11*).



**Figure 11** Spendings on ALMPs in 2002.

## 2.2 Taxes

The Dutch tax system is an almost fully individualized progressive tax system. The current tax system is the result of the tax reform in 2001 (see Bosch and Van der Klaauw, 2009; for a more extensive discussion). There are four income brackets with marginal tax rates increasing from 33.50% for taxable incomes less than 17,878 euro to 52% taxable incomes above 54,776 euro (in 2008). The tax in the lowest brackets includes premiums for social insurances such as social security, widowness, and long-term health care (i.e. catastrophic care not covered by health insurances).<sup>1</sup> The system contains a number of tax credits, which reduce the amount of tax paid. There is a substantial general tax credit of 2007 euro, which is transferable between partners. The tax system also contains tax credits for working and parenting. The tax credit for working has a maximum of 1504 euro for individuals below age 57, and increases for older individuals to stimulate labor force participation of older workers. The tax credits

<sup>1</sup> For 2009, social security (AOW) was 17.9%, widowhood (ANW) 1.1%, and long-term health care (AWBZ) 12.15%. Employers pay on average 18% premiums for disability and unemployment insurance, and they contribute for day care of children.



reduce the total amount of taxes to be paid. Both low-income and high-income individuals benefit from reduced tax payments. Very low-income individuals may have income without paying any taxes. The tax system only includes a limited set of deductibles of which the one for interest payments on mortgages is most substantial. Furthermore, there are a number of subsidies, which depends on taxable income. The most substantial are subsidies for child care, health insurance and renting a house.

There is a separate tax for wealth. Wealth above a threshold (which depends on the household composition) has a 1.2% tax rate. The threshold is 20,660 euro for an adult and for each dependent child in the household 2715 euro is added.

### **2.3 (Early) retirement**

#### *Social security*

All individuals above age 65 receive social security benefits (*AOW*). The level of these benefits depends on the composition of the household and is modified twice a year. For a one-person household the benefits level in 2009 was 1001.94 euro (plus 56.50 euro “holiday money”) per month, while a two-person household (both partners above age 65) receives 1373.56 euro (plus 80.72 euro holiday money). For two-person households where only one partner is above age 65 there is a lower benefits level, which depends on the income of the partner. The benefits levels above apply to individuals who lived in the Netherlands between age 15 and 65. Individuals who lived abroad for some period, do not receive full benefits. In particular, their benefits are reduced by 2% for each year they stayed outside the Netherlands.

#### *Retirement*

In addition to social security benefits, individuals can receive old age pensions. Employed workers pay contributions to pension funds, which are often private insurers organized by sectors. Each sector has its own specific rules. However, approximately one-third of the contribution is paid by the worker and two-thirds by the employer. Pensions are often arranged in collective bargaining agreements, so that employers within a sector cannot use pensions to compete for workers.

### *Early retirement*

Different pension funds have different arrangements for early retirement, which means that early retirement is also organized at the sector level. Currently about 265,000 individuals are early retired. In the past, there were special tax rules for people being early retired, which made early retirement financially more attractive, but these rules have been abandoned.

## **2.4 Child care**

All households with a dependent child receive each quarter a lump-sum subsidy. In 2009 these subsidies were 278.55 euro for having one child between age 12 and 17 and 313.35 for two children and the amount reduced further for each additional child. For the first child below age 12 the amount is 194.99 euro, and the subsidy per child is lower for additional children.

In the Netherlands, day care centers for young children are not subsidized. Instead, parents receive a subsidy for the costs of child care. In 2009, the maximum hourly tariff which is subsidized is 6.10 euro (for a child below age 4), and there are different hourly tariffs for older children. The subsidy depends on taxable income. A household with a (joint) taxable income below 17,553 euro receives the maximum subsidy of 62.6% of total costs for the first child and 63.2% for additional children. A household with a (joint) taxable income of 80,000 euro receives 24.0% for the first child and 59.2% for following children. The subsidy thus falls with taxable income, particularly for the first child. This subsidy scheme for child care is the result of the reform which took place in 2005.

## **2.5 Benefits**

The main benefits programs for individuals between 15 and 64 years old, who are not in full-time education anymore, are disability insurance, unemployment insurance and welfare. Unemployment insurance (UI) and disability insurance (DI) are both organized by the National Social Insurance Institute, and both cover all employees. Both UI and DI benefits are always capped at a maximum of 44,400 euro per year. Welfare is organized at the level of the municipalities.

### *Disability insurance and sick pay*

The current disability insurance program is the result of the last reform in 2006, which replaced the so-called *WAO* by *WIA*. While other OECD countries make a distinction by whether the impairment occurred on the job or elsewhere, only the consequence of the impairment is relevant for the Dutch DI program. Any illness or injury entitles to entering DI after a mandatory waiting period of two years. The legitimacy of sickness absenteeism during the waiting period is checked by a doctor from an occupational health service contracted by the employer. During the two year waiting period employers are responsible for financing sick pay.<sup>2</sup> The employers should furthermore contract an occupational health service to prevent and manage sickness absenteeism.

The degree of disablement depends on both the severeness and the permanence of the impairment. Severeness is assessed by the worker's residual earnings capacity (i.e. potential earnings with his or her functional limitations as percentage of pre-disability earnings). If capacity loss (the complement of earnings capacity) is above 80% and recovery is unlikely, then the individual is eligible for *IVA* (full and permanent) benefits. Any capacity loss between 35% and 80% or above 80% with the potential of recovery, entitles the individual to *WGA* (partial or temporary benefits). Partial disability (capacity loss less than 80%) entitles one to partial benefits. *WGA* benefits consists of two chronological linked parts. First, there are wage-related benefits with an entitlement period depending on work history and age, and second there are follow-up benefits which are often lower. The follow-up benefits are such that they yield financial incentives for working.

An important supplementary disability program is the *WAZorg*, which covers individuals who became disabled without ever having worked.<sup>3</sup> Individuals with an illness or impairment at age 18 are allowed to enter *WAZorg* immediately. Individuals who apply for *WAZorg* at a later age (for example, after leaving full-time education) have a waiting period. This program for youth handicapped is the fastest growing disability program in the last few years.

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<sup>2</sup> Collective bargaining agreements ensure that sick workers receive 90% to 100% of their net salary. Most small and medium sized employers insure themselves against financing sick pay.

### *Unemployment insurance*

Individuals with a substantial work history are often entitled to collecting UI benefits. The current Dutch Unemployment Law is the result of the most recent reform in October 1, 2006, and insures all employees against the financial consequences of unemployment. Workers in the public and the educational sector, have additional and more generous arrangements. The benefits level depends on the previous wage and the entitlement period depends on the work history. In order to be eligible, the worker must be younger than 65 years, should have lost at least five hours a week (or at least 50% of her working hours), may not have received income for the hours lost, should meet the requirement of having worked 26 out of 36 weeks prior to the hours lost. Furthermore, UI recipients should be available for the labor market, register as job seeker, and finally they should not be voluntary unemployed. The first two months, the worker receives 75% of the last earned wage and then 70%. The entitlement is between three and 38 months depending on work history. If an unemployed worker worked at least 52 days during each of four years out of the past five calendar years ('year'-condition), the entitlement period is extended to six months. For each additional year of employment (so beyond 4 years) the entitlement period for UI benefits is extended with one month. For an entitlement period of one year, the unemployed worker must have worked for at least 10 years. For the maximum entitlement period of 38 months, 36 years of working is required.

UI benefits recipients have some formal obligations. They have to (i) prevent unnecessary job loss, (ii) take actions to prevent them from staying unemployed, so (s)he has to search for a job and accept appropriate job offers, register at the public employment office, participate in education and training, etc., and (iii) keep the UI agency informed about everything that is relevant to the payment of benefits. Individuals who do not comply with these rules might get a sanction, which implies a temporary reduction of the benefits level.

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<sup>3</sup> There is also a separate disability program for workers not covered by any other program, such as temporary agency workers and workers without a permanent contract.

### *Welfare benefits*

Welfare is a safety-net for households without sufficient income and who are not covered by any other benefits program. To be eligible for collecting welfare benefits the individual must (i) be legally allowed to stay in The Netherlands, and (ii) be over 18 years old. Not all welfare recipients are counted as unemployed. For example, single parent households with young dependent children might be exempted from the obligation to search for work and, therefore, do not count as being unemployed.

The welfare benefits level is fully determined by the household composition and by the extent to which other sources of income and assets are available. Thus, welfare benefits are means-tested and related to what is considered to be the social minimum income. If the applicant has a partner with a sufficiently high income out of labor, or if the applicant has a sufficiently high amount of assets (like a house), then in general he does not qualify for welfare. Concerning the level of benefits, one may distinguish between four household categories. The net level of welfare benefits for families with all adults between 21 and 65 is related to the net minimum wage. A two-parent family receives (jointly) 100%, a single-parent family 70%, and a single individual 50% of the net minimum wage. For individuals below age 20 the level of welfare benefits depends on the level of child allowances. The minimum wage changes twice a year, on January 1 and July 1. In January 2009 the net minimum wage for individuals above age 23 was equal to 1284 euro per month. Below age 23 the minimum wage is age dependent (lower for younger individuals).

Welfare is organized at the level of the municipalities. Municipalities have power to provide bonuses on top of the welfare benefits level. For example, some municipalities pay bonuses for the use of sports facilities and public transport, or for health-related expenses like glasses. The types of bonuses, the rules on entitlement to a bonus, and the levels of the bonuses vary considerably across municipalities.

The majority of the inflow into welfare consists of individuals losing their job who have reached the end of the entitlement period for UI benefits. There are, however, also other reasons for entering welfare. For example, less than 10% of the inflow consists of individuals leaving full-time education. A similar fraction of the inflow consists of individuals who got divorced while not having income or because the partners lose

income. Furthermore, there are some asylum seekers who received a permit to stay, and individuals losing entitlement to DI benefits.

Welfare recipients have by law the same obligations as individuals collecting UI benefits. Some welfare benefits recipients might, however, be exempted from the obligation to search for work. This is for example the case for single parents with dependent children. Furthermore, the exact guidelines may be determined by the municipalities.

### **3 Recent reforms in the Netherlands**

In this section, we discuss some recent reforms in the Netherlands. First in subsection 3.1 we discuss tax reforms. Subsection 3.2 discusses early retirement reforms, and in subsection 3.3 we discuss childcare reforms. Benefit reforms are discussed in subsection 3.4 and in subsection 3.5, we discuss active labor market programs. Finally, in subsection 3.6 we discuss some other reforms.

#### **3.1 Tax reform of 2001**

The current tax system is the result of a reform in 2001. The key elements of the tax reform were reducing marginal tax rates, and removing perverse incentives of allowances (see Bosch and Van der Klaauw, 2009; for a more extensive discussion). Prior to 2001, individuals only paid taxes on income above the total amount of allowances (general allowance and allowances for work and parenting). The allowances yielded a higher tax reduction for high-income individuals with a higher marginal tax rate. An important feature of the general allowance is that if the allowance is not fully used, the unused share is transferred to the partner. Transferring the allowance is particularly beneficial if the partner's income falls in a bracket with a higher marginal tax rate. So working at a low income is financially relatively unattractive for individuals with a high-income partner. The tax reform of 2001 replaced the allowances by tax credits, which are reductions of the total amount of taxes. Also tax credits are transferable, but these do not yield the same disincentive effects as allowances. It should be noted that also some deductibles were abolished. To compensate for the reduction in labor tax, the government increased consumer taxes from 17.5 to 19 percent.

### **3.2 Retirement and early retirement**

In 2006 many of the tax advantages of early retirement were abandoned. However, this did not affect individuals who entered early retirement prior to January 1, 2006. Also nothing changed for workers who were above age 55 in 2005.

Until 2011, only half of the premiums for early retirement benefits are tax deductible, and the contributions of employers are only taxed at a rate of 26%. From 2011 onwards, all contributions for early retirement are fully taxed as wage income. Workers are allowed the possibility to transfer early retirement savings to their pension savings.

In 2006 a new system of life-cycle savings was introduced. This system allows workers to save tax-free while working for taking sabbaticals or time out of the labor market for care-taking or other life-cycle events. These savings can also be used for early retirement. However, even though there are additional tax advantages associated to these life-cycle savings, they are quite unpopular. Less than 5% of the workers actually participate in this scheme.

### **3.3 Child care**

The current system of subsidies for day care is the result of the reform in 2005. Prior to 2005, a substantial share of the child care centers were related to and funded by employers or subsidized by local municipalities. Parents who placed their children in the subsidized child care centers had to pay an income-related fee. The remaining centers were privately funded by parents. But employers often contributed about one-third of the costs of child care, although employers were not obliged to, and some indeed did not, do so. Before 2005, parents could deduct (part of) the costs of child care from their income. Because of the progressive tax system, high-income households benefited more than low-income households.

In 2005, child care centers were privatized and employers no longer directly contributed to parents for the costs of child care. Furthermore, the tax deductions were replaced by direct (income-related) subsidies. These subsidies were decreasing in parental income, implying that low-income parents received higher subsidies than high-income subsidies. The main effect of the reform was thus that child care became more expensive for high-income parents and cheaper for low-income parents.

### **3.4 Benefits**

#### *Disability insurance and sick pay*

De Jong (2009) provides a very extensive discussion of the Dutch DI program, and all reforms since the introduction of DI in 1967. It should be noted that DI was subject to many reforms in the last few decades, in particular when the politically contentious level of one million benefits recipients was almost reached.

Until 2002 there were five separate insurance agencies for DI and UI. These agencies were privatized in 1997, and each covered workers in particular sectors. In 2002, the agencies were merged in the National Social Insurance Institute (NSII). Upon merging, the rules for DI did not change. The NSII was obliged to contract external firms for providing reintegration activities.

Until April 2002 the NSII had during the waiting period of sickness absenteeism a joint responsibility with the sick worker and the employer to get the sick worker back to work. As of April 2002, the NSII is no longer involved during the one-year waiting period. Under this new gatekeeper regime DI benefit applications at week 39 should be accompanied by a reintegration report, containing the reintegration plan as drafted after 8 weeks of sickness absenteeism, and an assessment on why it has not (yet) resulted in work resumption. The caseworker of the NSII checks this reintegration report. If the report is delayed, incomplete, or proves that the worker and/or employer have been negligent, the DI benefit application is not processed and the caseworker of the NSII can decide to start a sanction procedure. A sanction usually implies that the employer is obliged to continue providing sick pay for some additional months.

In 2004 the one-year waiting period of sickness absenteeism before entering DI was extended to two years. The direct consequence is that in 2005 there was no inflow into DI. Furthermore, when extending the waiting period the experience rating of premiums for DI (paid by firms), which was introduced in 1998 was reduced (only applied to larger firms). The experience rating was introduced gradually, and reached its full extent in 2003.

In 2006 the old DI program (*WAO*) was replaced by a new program *WIA*. The program had a stricter benefits entitlement rules. In particular it became much more difficult (in terms of medical requirements) to get full and permanent (*IVA*) benefits. In



anticipation of the switch from WAO to WIA the NSII started reexamining the current stock of DI benefits recipients according to the new rules. Between October 2004 and December 2007 all about 300,000 benefits recipients under age 50 were reexamined. The program started with the youngest cohort (under 45), and afterwards the age group 45-49 was examined. Those who lost benefits received support of reintegration agencies.

#### *Changes in unemployment insurance compensation*

October 1, 2006 the UI benefits system was reformed substantially. In particular, the maximum entitlement period was reduced from 60 months to 38 months. Furthermore, during the first two months the benefits level is now 75% instead of 70%. Also short-term benefits and extended benefits which existed prior to October 2006 were eliminated.

From January 1, 2007 stricter counseling was introduced. In particular, the UI agency makes a contract with each worker who becomes unemployed. The goal of these personal contracts is to stimulate return to work. After 3 months of unemployment the job search behavior of the unemployed worker is evaluated according to the contract.

In January 2009 wage subsidies to employers who hire relatively disadvantaged unemployed workers were introduced. The target population consists of workers who have been unemployed for 12 months and particular types of recipients of DI benefits. The subsidy is capped at 50% of the minimum wage. Furthermore, it is arranged that very disadvantaged workers can get work experience while keeping their benefits.

Until July 1, 2009 UI benefit recipients had to accept suitable job offers, which implies that the job requirements should match the worker characteristics, such as education and work experience. As of July 1, 2009, for individuals who are unemployed for more than one year all jobs are considered suitable. This implies that only during the first year of unemployment individuals can be selective on which jobs to take. However, individuals who take a job with a lower pay, will be compensated. The construction is such that individuals always benefit financially from taking a job.

### 3.5 Active labor market policies

During the Nineties active labor market programs in the Netherlands were more frequently used. In 2002, the government privatized the market for such reintegration activities. Indeed, the NSII reached a stage in which all reintegration activities were done by external firms. And also welfare agencies most often used such commercial agencies. However, recently both the NSII and the welfare agencies initiated again their own active labor market programs. Currently, about 50% of the reintegration activities for UI are done by external agencies, while this is less than 25% for welfare and DI. The training and schooling policies are thus very diverse and change content and target population frequently. In October 2008 *reintegration coaches* have been introduced. These are caseworkers who make a contract with job seekers about job search behavior. Below we discuss the largest active labor market policies.

#### *Subsidized employment:*

In 1994 a very expensive and substantial program was initiated to create subsidized jobs for the most disadvantaged unemployed workers. These so-called *Melkertbanen* were supposed to create new employment in order to avoid crowding-out of existing jobs. The most substantial part of the subsidized jobs is in the public sector. In 1999, the *Melkertbanen* were replaced by *ID-jobs*, which were quite similar, but had more the intention to stimulate outflow to an ordinary job. It is, however, widely believed that the subsidized jobs were unsuccessful in stimulating the outflow to an ordinary job. This was the main reason for abandoning the program in 2004; however, local municipalities were given the freedom to decide about the speed of reducing the jobs.

#### *Counseling and monitoring:*

The first active labor market policies in the Netherlands involved advising unemployed workers with respect to job search and checking their actual search behavior. These policies started in the late eighties and were implemented somewhat ad hoc. During the nineties counseling and monitoring became nationwide standard practice in the treatment of unemployed workers. However, the content of the policy and the target population changed regularly.

#### *Work-first:*

Since the introduction of the current Welfare Act in 2004, most municipalities use *Work-first* programs, which are workfare-type of programs. These programs are targeted at welfare and imply that recipients have to work to be entitled to collecting benefits. The work consists of simple tasks. The work-first programs often start immediately after entering welfare. About 17% of the applications for welfare benefits are withdrawn after the applicant learns about the obligation to participate in a work-first program.

#### *Sanctions:*

If an unemployed worker does not comply with the rules of the UI agency or the welfare agency, then the worker can be punished with a sanction. Reasons for giving a sanction are insufficient job search effort, unnecessary job loss, fraud or a lack of willingness to participate in training or schooling programs. The key element of a sanction is a temporary benefit reduction. However, if a sanction has been imposed, the individual gets a detailed explanation on the reasons for the sanction, and which behavior is expected to avoid future sanctions. Furthermore, the sanctioned worker enters a stricter monitoring regime.

The length of the sanction period and the size of the benefit reduction depend on the reason why the sanction is imposed. For UI recipients a sanction can vary from a 5% reduction during four weeks to a 25 to 30% reduction during 13 weeks. For welfare recipients sanctions are almost always one or two months, and the benefit reduction is 5, 10 or 20%. Only in case of fraud the sanction can be more severe.

Sanctions to UI recipients exist since the introduction of the Unemployment Law in 1987. The rate at which sanctions are imposed to UI recipients increased enormously in the beginning of the nineties. For example, the ratio of sanctions to unemployment benefits increased from 17% in 1996 to 25% in 2000. Sanctions to welfare recipients have been frequently imposed since 1992 and their use has increased over time.

### **3.6 Other policy measures**

#### *Screening:*

Each benefit program has a screening procedure for checking eligibility criteria. Eligibility to collecting UI benefits depends on the employment history of the worker. If

the worker meets the required work history, the individual will receive UI benefits. Only in case of unnecessary job loss the individual might get punished with a reduced benefits level during the first few months of UI.

Eligibility for DI depends on the medical conditions of the individual. The degree of disability depends on the potential earning loss as a consequence of the condition that caused disability. However, recently the DI agency also started checking if the applicant and the employer devoted sufficient effort in getting the worker back to his job during the period of sickness absenteeism.

Welfare benefits are means-tested and the level of welfare benefits depends on the household composition. Therefore, screening of eligibility focuses on potential eligibility for other benefits programs, the income and wealth of the applicant and other household members.

It should be noted that most agencies try to discourage individuals from applying for benefits. One of the criteria on which the quality of the local agencies is judged is the number of denied applications.

## **4 The impact of the reforms and general equilibrium effects**

### **4.1 Introduction**

On September 7, 2001, the Minister of Social affairs wrote to the parliament that *supported by the economic growth, eight years of (active) labor market policies caused an increase of 1.2 million jobs*. To support this claim a report was sent along with a summary of all available evaluation studies of active labor market policies. The list of evaluation studies only contains two studies that account for selectivity in the treatment assignment (and in the report both studies are criticized for their lack of observed individual characteristics).

Most evaluation research is done by commercial bureaus. These commercial bureaus lack the econometric skills for high-quality quantitative evaluation research. The Netherlands does not have a tradition in which policies or institutional changes are evaluated at the start. Many large-scale programs have never been evaluated. Further-

more, policy evaluation in the Netherlands suffers from the lack of suitable high-quality data and the willingness to have well-designed experiments. More striking is that many policies do not have a clearly-defined and well-motivated goal. A typical example of a policy without clearly-defined goal is the *Melkertbanen*, which were discussed in Subsection 3.5. Goals like spending all resources or minimizing the dropout of participants are not uncommon. This limits the impact of the evaluation research on actual policy.

Currently a large share of active labor market programs is provided by many commercial agencies, which each have their own programs or treatment. This implies that it is difficult to get an idea about the success of the programs in general.

In this section we focus on specific policies that have been evaluated empirically. In particular, we focus attention on microeconomic studies where serious attention has been paid to selective participation in the program. It is well known that reforms provide some exogenous variation in the treatment of individuals, which allows for a convincing evaluation of a policy. We compare the results of the Dutch evaluation studies to those from other countries. Hotz, Imbens and Mortimer (2005) have shown that after correcting for differences in the characteristics of the target population, programs often have similar effects at different locations.

## **4.2 The effects of the 2001 tax reform**

Recall that within the OECD, the Netherlands has by far the highest rate of part-time work among women. Also the Dutch legislation allows for some flexibility in determining weekly working hours. Bosch and Van der Klaauw (2009) use the 2001 tax reform to investigate the effect of financial incentives on female labor supply. The focus of their study is on married women between 20 and 50 years old with a working partner. In 2000 about 74% of these women were working, and on average 25 hours per week. The reform caused the average after-tax hourly (real) wage to increase by about 5% and the marginal after-tax hourly (real) wage increased by 7.5%. Bosch and Van der Klaauw (2009) estimate traditional labor supply models (e.g. Heckman, 1974; and Blundell, Duncan and Meghir, 1998). They find that the tax reform increased female labor force participation by about 2.5 percentage points, where the effect was most substantial for low-educated women.

Hours of work does not respond much to the increased after-tax marginal hourly wage. The estimated wage elasticity is even negative but insignificant. Overall, within the full population women, the tax reform caused working hours to increase from on average of 17.9 to 18.3 hours per week. This effect was highest for the lowest-educated women and decreases in the level of education. Obviously, the extensive margin of female labor supply is sensitive to financial incentives, while the intensive margin does not react.

Bosch and Van der Klaauw (2009) estimate the wage elasticity for women to be -0.15, which is much lower than what is usually found in the literature. Meghir and Phillips (2008) provide a survey of the existing literature and conclude that the majority of the studies find that the wage elasticity is between 0 and 0.3.

### **4.3 (Early) retirement**

In 2006 the tax rules for early retirement have been changed to make early retirement financially less attractive. Although we do not know about any formal evaluation of this reform, we can get some insight on the impact of the reform by considering trends in labor force participation of older workers and participation in early retirement schemes.

Labor force participation among 55-64 year-olds increased substantially around 2006 (2003: 36.4%, 2004 37.5%, 2005: 38.0%, 2006: 39.8%, 2007: 42.7%, 2008: 44.8%). Concomitantly, the fraction of workers in early retirement started to stabilize and even reduced a bit. At the same time the fraction of workers in early retirement reduced from 24.6% in 2006 to 22.2% in 2008.

Policymakers often defend early retirement with the claim that it increases employment for young workers. However Kalwij, Kapteyn and De Vos (2009) use panel data from 22 OECD countries and find no evidence for this.

### **4.4 Child care**

In January 2005, the Childcare Act was introduced which is fully based on demand-financing (before there were also elements of supply financing) so all subsidies go directly to the parents rather than to childcare suppliers. Noailly, Visser and Grout (2007) compare the old and the new system and they find that the provision of childcare in 2006 has shifted towards areas with higher purchasing power and away from rural areas. In addition, they report that the share of for-profit providers increased strongly, while

most of the contraction in childcare provision occurred in low-demand markets which mainly consisted of non-profit centers. If the aim is to stimulate female labor force participation through improved childcare facilities, it helps to subsidize parents rather than institutions.

#### **4.5 Benefits**

##### *Experience rating in DI premiums*

Since 1998 experience rating of firms was gradually introduced. If an employee was awarded a disability benefit, the firm faced a higher contribution rate, and vice versa if a firm employed a disability beneficiary. Koning (2004) examines the effects of this system of experience rating, using a difference-in-difference analysis on a unique longitudinal data set consisting of the Dutch DI administration records. The data cover about 370 thousand firms, employing roughly six million insured workers. These firms are followed over a three year period, from 2000 till 2002. The overall picture that emerges from his empirical analysis is that the impact of experience rating on DI inflow has been substantial. After one year the inflow in DI already decreased with 15%, mainly because employers increased their preventive activities in reaction to an increase in their premium rates ('ex post incentives').

##### *Introduction of the Gatekeeper protocol in the DI program*

In April 2002 the so-called gatekeeper protocol was introduced, which shifted the obligations of the NSII. Between 2002 and 2004 the inflow into DI reduced by 40%. De Jong (2009) assigns half of this reduction to the introduction of the gatekeeper protocol. But he also point towards three other factors which helped reducing the inflow. First, as discussed above in 2003 the experience rating in DI premiums paid by the employers became fully 'biting' (see Koning, 2004). Second, between 2002 and 2004 the Dutch economy experienced a downturn, which reduced sickness absenteeism. Furthermore, the generosity of the DI program was reduced.

The gatekeeper protocol included screening of DI applications. De Jong, Lindeboom and Van der Klaauw (2009) investigate the intensity of this screening, which is a policy measure of the DI agency. They exploit an experiment, where in two Dutch regions a stricter screening regime for DI applications was implemented. The caseworkers in

these two regions have spent on average 9.4% additional time on each DI application. To control for existing differences between regions, difference-in-differences estimation is used. The outcomes of stricter screening cannot be a reason for a denial of a DI application. It can only lead to a sanction to the employer or the worker. A sanction to the employer implies that the waiting period of sickness absenteeism before entering DI is extended with a few months. During this period, the employer has to continue paying the salary of the sick worker. If the sanction is given to the worker, the worker receives only reduced benefits during the first few months of DI.

The empirical results show that this regime of stricter screening reduces the number DI applications. In particular, due to the stricter screening significantly less workers report sick. If stricter screening would be applied nationwide, the number of sickness absenteeism reports would be reduced by 5.2%, and DI applications by 4.8%. A cost-benefit analysis shows that the costs of additional screening are ignorable compared to the reduction in DI benefits payments due to the lower inflow into disability insurance. In particular, the NSII can save over 60 million euro annually by implementing stricter screening. It should be noted that the reduction in DI applications did not increase the inflow into UI.

#### *Extending the waiting period of sickness absenteeism*

Because of extending the waiting period of sickness absenteeism before entering DI from one year to two years, there was no inflow into DI in the year 2005. Between 2004 and 2006 the inflow into DI dropped with 50%. This decrease cannot only be attributed to the extended waiting period, because at the same time also the old disability scheme (*WAO*) was replaced by the new stricter scheme (*WIA*). Recall that the entering requirements for this new scheme are much stricter. It should be noted that the inflow into the youth handicapped program (*WAZong*) increased at the same time. Recall that *WAZong* is a scheme for individuals who are already disabled before entering the labor market. One may argue that because of the stricter *WIA* more individuals with small impairments choose to enter *WAZong* rather than trying to work and applying for *WIA*.



### *International comparison*

There is a substantial literature about self-selection and disincentive effects from the US. Most studies mainly relied on state level variation in the implementation of DI rules (e.g. Autor and Duggan, 2003; Gruber, 2000; Gruber and Kubik, 1997; and Parsons, 1991). Often denial rates are used as proxy for strictness of entry requirements. For example, Parsons (1991) shows that increased denial rates induce a mechanism of self-selection of potential applicants, which coincides with De Jong, Lindeboom and Van der Klaauw (2009). These results suggest that there is serious moral hazard in DI programs (this is often found in economic literature on DI, e.g. Bound and Burkhauser, 1999). This also explains the results found by Koning (2004) on the effects of experience rating in DI premiums.

De Jong, Lindeboom and Van der Klaauw (2009) did not find any evidence for substitution between UI and DI. This is in contrast to, for example, Riphahn (1997) and Larsson (2006), who do find evidence for such substitution in Germany and Sweden, respectively.

### *Subsidized jobs*

The *Melkertbanen* and *ID-jobs*, which offered subsidized jobs (mainly in the public sector) to the most disadvantaged unemployed workers have never been evaluated properly. However, the general feeling is that there was hardly any outflow from these jobs to ordinary jobs. This conclusion would coincide with the general conclusion of Kluve et al. (2007), who stresses that only subsidized employment in the private sector has a positive effect on employment in ordinary jobs.

### *Work-first programs*

The work-first programs for welfare recipients are relatively new and have not yet been evaluated. There is some indication that work-first reduced inflow into welfare. Just after the introduction about 17% of the claims for welfare were withdrawn after the applicant learnt about the obligation to participate in a work-first program. This result coincides with the threat effect found by Black, Smith, Berger and Noel (2003). The work-first programs were based on the experience in Wisconsin, and resemble workfare

programs surveyed by Fredriksson and Holmlund (2006). They discuss the very limited empirical evidence on workfare-type programs, which points towards positive employment effects.

#### **4.6 Measures improving job search efficiency**

Recall that both the UI and DI agency and the welfare agencies often use external firms for providing active labor market programs. This implies that there are no well-defined programs which are offered for long periods of time. However, there are some classes of programs which are frequently used, although the details of the programs are often changing. Below we discuss the effectiveness of some of these programs which have been evaluated. In particular, we focus on counseling and monitoring, imposing punitive benefit reductions, providing reemployment bonuses and providing training.

##### *Counseling and monitoring:*

This is the oldest active labor market policy in the Netherlands. It involved advising unemployed workers in their search for work and checking their actual search behavior. These policies started in the late eighties, and were implemented somewhat ad hoc by the public insurance administration. During the nineties counseling and monitoring became nationwide standard practice in the treatment of unemployed workers. However, the content of the policy and the target population changed regularly.

In the Netherlands, there have been two social experiments that investigated the effect of counseling and monitoring of unemployed workers. In both studies the target population consisted of individuals collecting UI benefits. Counseling and monitoring consists of regular meetings between the caseworker of the UI administration and the unemployed workers. During these meetings recent job search effort is evaluated (monitoring) and the unemployed workers are advised in their future job search (counseling). An important element in the monitoring is that if the caseworker detects a lack of job search effort, the unemployed worker can be punished with a temporary reduction of the UI benefits.

The first social experiment described in Gorter and Kalb (1996) discusses the introduction of a more intensified version of counseling and monitoring. For the individuals in the treatment group the time spend between the caseworker and the un-

employed worker was increased compared to the standard practice. Van den Berg and Van der Klaauw (2006) discuss a social experiment, where the individuals in the treatment group received the common practice, and the individuals in the control group did not receive any counseling and monitoring at all. Therefore, the treatment population in Van den Berg and Van der Klaauw (2006) and the control population in Gorter and Kalb (1996) received roughly the same counseling and monitoring.

*Gorter and Kalb (1996):* This social experiment took place in 1989/1990 in seven Dutch regions. In total the experiment involved 1631 UI recipients, who were randomly assigned to the treatment and control group. However, due to item non-response the empirical analyses only considered 722 individuals. The individuals who were randomized into the treatment group received extended counseling and monitoring meetings compared to the individuals in the control group.

The key outcome variable of interest is the duration of unemployment, although Gorter and Kalb (1996) also investigate the effect of counseling and monitoring on the number of job applications. Gorter and Kalb (1996) find that the effect of counseling and monitoring on the job finding hazard is modest and insignificant for individuals who previously had a permanent contract, and significantly negative for individuals who previously had a temporary contract. They explain this big difference by stating that the aim of counseling and monitoring is to provide unemployed workers with a permanent contract, which might be difficult to obtain for individuals who were previously temporary employed. Furthermore, they find that counseling and monitoring significantly increases the job application rate.

*Van den Berg and Van der Klaauw (2006):* The social experiment in this study was conducted in 1998/1999 in two cities and involved around 400 type I unemployed workers collecting UI benefits. Type I unemployed workers are the ones with the best labor market prospects, type II and III unemployed workers are typically supposed to need some type of assistance, and type IV unemployed workers are not placable (alcoholics, severe psychological problems etc.). Randomization occurred at the level of the individual, and for those individuals who were randomized into the program, counseling and monitoring started with an intake meeting immediately after inflow into

unemployment. After that the program continued until six months after becoming unemployed with meetings every four weeks.

The main goal of the program was to reduce the period of collecting UI benefits. Therefore, the duration of unemployment is the key outcome variable of interest. The empirical results show a very small and insignificant positive effect of counseling and monitoring on the probability of finding work. Since counseling and monitoring is a relatively inexpensive policy, the benefits, in terms of unpaid UI benefits, are approximately the same as the costs of providing counseling and monitoring.

There exist some differences between the study by Gorter and Kalb (1996) and Van den Berg and Van der Klaauw (2006). First, the actual treatment differs as Van den Berg and Van der Klaauw (2006) investigate the effectiveness of the regular counseling and monitoring program and Gorter and Kalb (1996) study the effectiveness of intensifying the regular program. Second, the study by Gorter and Kalb was conducted in a period of recession, while Van den Berg and Van der Klaauw (2006) investigate a period with very favorable business cycle and labor market conditions. Third, the target population in Van den Berg and Van der Klaauw (2006) is restricted to type I unemployed workers, while the population in Gorter and Kalb (1996) also includes the more disadvantaged type II, III and IV unemployed workers.

There exists a relatively large empirical literature that focuses on counseling and monitoring in various countries. Many studies have used social experiment to assess the effectiveness of counseling and monitoring. Van den Berg and Van der Klaauw (2006) discuss the comparison between the results from the different studies. Ashenfelter, Ashmore and Deschênes (2005) analyze the effect of a system of more intensive monitoring on labor market outcomes of US UI recipients. Three of the four experiments give rise to positive effects on the exit rate to work. But the effects are all insignificant and quantitatively very small.<sup>4</sup> Johnson and Klepinger (1994), however, find that much stricter job search requirements reduce the length of collecting UI benefits in the US. Specifically, the requirement of making at least three employer contacts per week reduces the mean duration of unemployment by around three weeks com-

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<sup>4</sup> They also focus on other outcome measures, like UI payments and wages.

pared to the mean in absence of job search requirements. This requirement is much larger than in the Netherlands (one employer contact per week) and in Ashenfelter, Ashmore and Deschênes (2005). Dolton and O'Neill (1996) also consider job search assistance in combination with increased monitoring. Their target population consists of individuals who have been unemployed for six months in the UK in the early 1990s. This implies that it concerns a group of relatively disadvantaged individuals. They find a positive effect on the exit rate to work. Also Manning (2009) finds for the UK positive effects on outflow of tightened search requirements, but he shows that the increased outflow is not necessarily to work. Manning (2009) studies the program called Job-seeker's Allowance for welfare recipients. McVicar (2008) finds also for the UK that during periods without any monitoring reemployment rates are lower. Meyer (1995) provides a survey of US social experiments concerning job search assistance programs. It turns out that the effect on the exit rate to work increases in the intensity of the assistance. The decrease in the duration of UI dependence ranges from around half a week to more than three weeks. Finally, for Hungary, Micklewright and Nagy (2005) find that stricter monitoring only increases the re-employment of women above 30 years old. This is a group of individuals that typically does not devote much effort to job search. A feature of the monitoring in Hungary is that the caseworker also acts as a matching agent that offers suitable vacancies to unemployed workers.

We can conclude that the evidence on the effectiveness of counseling and monitoring is mixed and depends on the state of the business cycle, and the precise treatment. However, monitoring seems more efficient in stimulating reemployment of more disadvantaged and long-term unemployed, and has larger effects during recessions.

#### *Sanctions:*

An unemployed worker, who does not comply with the rules of the UI agency or the welfare agency, can be punished with a sanction. Abbring, Van den Berg and Van Ours (2005) focus on UI recipients and Van den Berg, Van der Klaauw and Van Ours (2004) study welfare recipients. In the empirical analyses the unanticipated nature of imposing sanctions is exploited. This implies that the process towards finding work is jointly modeled with the probability of imposing sanctions. This approach takes account of

unobserved differences between individuals who have been punished with a sanction and those who did not get a sanction.

Abbring, Van den Berg and Van Ours (2005) use administrative data from the records of the UI agency. The data describe individuals who became unemployed in 1992 and these individuals are followed until finding work or September 1993. The full data set contains 182,239 unemployment spells. In 2.9% of these spells a sanction was imposed and 43.5% of these spells have not ended in employment before the end of the observation period.

For the empirical analyses smaller samples are constructed. In particular, the study focuses on 7758 unemployment spells of individuals who were previously employed in the metal industry and 32,331 spells of individuals who were previously employed in the banking sector. The empirical results indicate that the sanction probability increases during the first 16 weeks of collecting unemployment insurance and remains constant afterwards. The effects of imposing a sanction on the transition rate from unemployment to employment are in both sectors substantial and significant. Imposing a sanction increases the re-employment probabilities of the sanctioned worker. Sanctions seem to have a somewhat larger effect on the re-employment probabilities of females than of males. In particular, a sanction increases the reemployment rate of women by about 90% and about 50% for men.

The data used in Van den Berg, Van der Klaauw and Van Ours (2004) consists of all job losers who applied for welfare benefits in the city of Rotterdam in 1994. This is a sample of 7978 individuals, who were followed until stopping collecting welfare benefits or until October 1996. About 14% of these individuals had a sanction imposed before October 1996, while only 39% had left welfare benefits.

The empirical results show that the sanction rate is highest between six and 12 months of collecting welfare benefits, which coincides with the time period in which the first thorough investigation of files occurs. The effect of imposing a sanction on the transition rate from welfare to work is both substantial and significant. A sanction raises the exit rate to work with about 140%. The probability that a young man (25 years old) find work within two years after inflow in welfare is 0.66. A sanction after six months

increases this probability to 0.93. For an older man (50 years old) a sanction increases these reemployment probability from 0.29 to 0.54.

#### *International comparison:*

Grubb (1999) notes in his survey that sanctions exist in many countries. However, the empirical literature on the effects of sanctions is very limited. Lalive, Van Ours and Zweimüller (2005) find for Switzerland a smaller effect of actually imposing sanctions than was found in both Dutch studies. There are two important differences between the Swiss and the Dutch policy regime on sanctions. First, in Switzerland there exists a system of warning unemployed workers prior to imposing a sanction. Roughly one third of the warnings is followed by a sanction. Lalive, Van Ours and Zweimüller (2005) show that the effect of a warning is as large as the effect of actually imposing a sanction. Second, Switzerland has a much stricter sanction regime than the Netherlands (e.g. Grubb, 1999). Whereas in the Netherlands, the annual sanction rate during a spell of unemployment is below 5%, in Switzerland, this can be as high as 12%. In the Netherlands, re-employment rates of sanctioned individuals are often very low and there is much room for increases. In Switzerland, also individuals who already have higher re-employment rates get punished and therefore there is less room for increases in re-employment rates for sanctioned workers. Arni, Lalive and Van Ours (2009) and Van den Berg and Vikström (2009) investigate the long-term effects of sanctions. They find for Switzerland and Sweden, respectively, that imposing a sanction reduces the quality of the post-unemployment job (lower wage, shorter employment duration, lower hours of work and lower occupational level).

#### *Reemployment bonuses*

In the past, both the government and some municipalities have provided financial incentives for finding work. There have been for example some temporary tax deductions for long-term unemployed who found work. Also some municipalities offered cash payments for long-term welfare recipients who found and kept work for a particular time period. Van der Klaauw and Van Ours (2009) study one example of such a bonus scheme. In particular, in Rotterdam individuals who received welfare for more

than 12 months were entitled to receiving a bonus if they found a job and remained employed for at least six months. Van der Klaauw and Van Ours (2009) exploit that the entitlement rules and the sizes of the bonuses changed over time. They do not find any effect of promising bonuses on reemployment rates. As the most likely explanation they mention that rules changed so frequently and often in retrospect, that this does not yield any incentives for job seekers. Also the take-up rate of the bonuses is very low.

This finding contradicts earlier findings in the literature. Meyer (1988) finds positive effects from a reemployment bonus experiment. There is an increase in the employment hazard just before the end of bonus eligibility, and, therefore, he argues that a permanent reemployment bonus is not desirable. Meyer (1996) also points to the low take-up rate of the reemployment bonuses. Card and Hyslop (2005) investigate the Self Sufficiency Project, which includes earning subsidies for long-term welfare recipients. They report positive employment effects of the Self Sufficiency Project.

#### *Training programs*

Training, schooling and job search assistance programs are offered by commercial agencies. There are many of these agencies, who offer many programs. Evaluation of these programs is very uncommon. An exception is Kastoryano and Van der Klaauw (2009), who study a training program for unemployed workers in the educational sector. They exploit the rules for assigning programs. In particular, the timing of training only depends on a limited set of observed characteristics, and there are some discontinuities, for example in age. The results indicate that the training programs do not stimulate reemployment. More precisely training programs which start early in the unemployment spells have substantial and significant negative effects on reemployment rates. Kluve et al. (2007) concludes from a survey among evaluation studies of European training programs that there is not a general conclusion to be drawn from the programs. Some studies report negative effect and others positive effects. These positive effects are, however, at most modest.

#### **4.7 General equilibrium effects**

In the labor market, frictions are important; we simultaneously observe vacancies and unemployed workers. Frictions are responsible for the fact that it takes time before a



vacancy is filled and that the allocation of unemployed workers in jobs is not optimal. At the individual level, workers and firms impose negative externalities on each other. Typically, an additional vacancy is good for the unemployed workers and bad for competing firms with vacancies. Similarly, if some unemployed workers increase their job search effort (for example in response to some active labor market policy), this can harm the labor market prospect of other unemployed workers. There can, however, also be general equilibrium effects, which have the opposite consequence. If unemployed workers search more actively, firms might open more vacancies since the probability that a vacancy will be filled fast is higher.

Gautier, Moraga-Gonzalez and Wolthoff (2008) study the question whether current participations levels and the search intensities of the non-employed workers are socially optimal. They model the wage distribution and matching rates for five labor market segments. Workers, who are heterogeneous in their search costs, can apply to multiple jobs, and in equilibrium firms respond by offering wages from a continuous wage distribution. There are two types of coordination frictions. Workers do not know where other workers apply, and firms do not know which candidates are considered by other firms. The key result is that without government intervention, labor force participation is too low. Wolthoff (2009) extends the model and finds (using data from the US) that without government intervention, job search effort is typically too low.

## **5 Conclusions**

In the past few years, there have been substantial institutional reforms in unemployment insurance and disability insurance. In particular, the programs have been made less generous. During this period, the Netherlands has experienced reducing inflow rates in these benefits programs. The level of unemployment in the Netherlands is among the lowest within the OECD. However, the disability insurance program is still very substantial. Comparing the Netherlands to other OECD countries shows that (i) among the unemployed workers, there is a large share of long-term unemployed workers, (ii) youth unemployment rates are high relatively to middle aged workers but low relatively to other OECD countries, (iii) there are many disabled workers, and in particular youth

handicapped, (iv) labor force participation is relatively high, only for older workers labor force participation is low, (v) Dutch workers work relatively few hours, and (vi) Dutch spending on active labor market programs is very high.

It seems that labor force participation is sensitive to financial incentives, which indicates a substantial degree of moral hazard in benefits programs. First, the size of the benefits programs reduced when these became less generous. Second, female labor force participation reacts to changes in tax rules, Third, unemployed workers react strongly to punitive benefits reductions. Fourth, abandoning the tax benefits from early retirement increased labor force participation of older workers. Also the experience rating of disability insurance premiums for employers reduced inflow. The exception is the lack of incentive effects of reemployment bonuses, although there are some major flaws in the design of this bonus scheme.

In the Netherlands spending on active labor market programs are very high and unemployment is very low. Therefore, it would be tempting to conclude that active labor market programs are very successful in reducing unemployment. However, there is no convincing empirical evidence about any of the programs that it has a substantial effect on reducing unemployment. In particular, the counseling and monitoring has at most a modest effect on employment. The subsidized jobs have been abandoned because of lack of positive effects, There is no evidence of positive effects of training and schooling programs. It should be noted that in the Netherlands job protection is high. Therefore, the low unemployment rate may be the result of low inflow into unemployment, rather than high exit rates from unemployment. Indeed, the fraction of the unemployed who are long-term unemployed is very high. The costs of unemployment are thus very unequally distributed within the population. Probably, the labor market would benefit from relaxing job protection. The net effects of job protection on unemployment are unclear, but strong job protection reduces labor market flows and seems to reduce productivity. Indeed, Bartelsman, Gautier and De Wind (2009) provide evidence that strong job protection is bad for innovative sectors.

Dutch workers, and in particular women, often work part-time. Whereas in other countries the increase in female labor force participation was followed by an increase in

working hours, the latter step did not occur in the Netherlands. Using tax rules it seems difficult to affect hour of work decisions.

Dutch policymakers have the tendency of focusing on young unemployed workers. Youth unemployment in the Netherlands is, however, very low and it might be better to shift some of the focus towards the low labor force participation rates of older workers. However, the youth handicapped program is currently the largest growing benefits program in the Netherlands. This can be explained by the tightening of the regular disability insurance program which pushed more young individuals into the youth handicapped program.

During the recent financial crisis the Dutch unemployment rate increased from slightly less than 4% to about 5%. This increase in unemployment is much smaller than what was expected by policymakers at the start of the crisis. Even though, the Netherlands has a large financial sector and was therefore severely hit by the crisis, the increase in unemployment is much smaller than what is observed in countries with much less employment protection. The Dutch government introduced partial unemployment insurance during the financial crisis. This allowed employers to partially lay-off workers to unemployment insurance. The advantage is that employers can reduce their labor force without losing skilled labor or firm-specific human capital. Partial unemployment insurance is currently used by only 30,000 individuals, who do not have a job search requirement and also do not count as unemployed. However, partial unemployment insurance cannot explain the limited increase in the unemployment rate. Also the increased enrollment of students in higher education (and thus less individuals entering the labor market) cannot explain this. Furthermore, other than in the banking sector, the Dutch government did not stimulate the economy on a large scale. Therefore, the most likely explanation for the limited increase in the unemployment rate is that before the financial crisis the labor market was very tight and many firms might have had a shortage of labor. Finally, the strong job protection may have slowed down and postponed the increase in the unemployment rate, but this will imply a slower reduction in the unemployment rate when the economy starts to rebound.

## References

- Abbring, J.H., G.J. Van den Berg, and J.C. Van Ours. “The effect of unemployment insurance sanctions on the transition rate from unemployment to employment.” *Economic Journal*, 115:602–630, 2005.
- Arni, P., R. Lalive, and J.C. van Ours. “How effective are unemployment benefit sanctions? Looking beyond unemployment exit.” *Mimeo University of Lausanne*.
- Ashenfelter, O., D. Ashmore, and O. Deschênes. “Do unemployment insurance recipients actively seek work? Evidence from randomized trials in four US states.” *Journal of Econometrics*, 125:53–75, 2005.
- Autor, D.H. and M.G. Duggan. “The rise in the disability rolls and the decline in unemployment.” *Quarterly Journal of Economics*, 118:157–205, 2003.
- Bartelsman, E.J., P.A. Gautier, and J. De Wind. “Employment protection and worker allocation.” *Mimeo Tinbergen Institute*, 2009.
- Black, D.A., J.A. Smith, M.C. Berger, and B.J. Noel. “Is the threat of reemployment services more effective than the services themselves? Evidence from random assignment in the UI system.” *American Economic Review*, 93:1313–1327, 2003.
- Blundell, R., A. Duncan, and C. Meghir. “Estimating labor supply responses using tax reforms.” *Econometrica*, 66:827–861, 1998.
- Bosch, N. and B. Van der Klaauw. “Analyzing female labor: Supply-evidence from a Dutch tax reform.” *IZA Discussion Paper*, 4238, 2009.
- Bound, J. and R.V. Burkhauser. “Economic analysis of transfer programs targeted on people with disabilities.” *Handbooks in Labor Economics* 3C:3417–3528, 1999.
- Card, D. and R. Hyslop. “Estimating the effects of a time-limited earnings subsidy for welfare-leavers.” *Econometrica*, 73:1723–1770, 2005.
- De Jong, Ph. “Recent changes in Dutch disability policy”, *APE Working Paper*, 2009.
- De Jong, Ph., M. Lindeboom and B. van der Klaauw. “Screening disability insurance applications.” *Journal of the European Economic Association*, forthcoming, 2009.

- Dolton, P. and D. O'Neill. "Unemployment duration and the restart effect: some experimental evidence." *Economic Journal*, 106:387–400, 1996.
- Fredriksson, P. and B. Holmlund. "Improving incentives in unemployment insurance: A review of recent research." *Journal of Economic Surveys*, 20: 357–386, 2006.
- Gautier, P.A., J.L. Moraga-Gonzalez, and R.P. Wolthoff. "Structural estimation of search intensity: Do non-employed workers search enough." *Mimeo Tinbergen Institute*, 2008.
- Gorter, C. and G.R.J. Kalb. "Estimating the effect of counseling and monitoring the unemployed using a job search model." *Journal of Human Resources*, 31:590–610, 1996.
- Grubb, D. "Making work pay: the role of eligibility criteria for unemployment benefits", OECD Paris, 1999.
- Gruber, J. "Disability insurance benefits and labor supply." *Journal of Political Economy* 108, 1162-1183, 2000.
- Gruber, J. and J.D. Kubik, "Disability insurance rejection rates and the labor supply of older workers." *Journal of Public Economics* 64, 1-23, 1997.
- Heckman, J.J. "Shadow prices, market wages, and labor supply." *Econometrica*, pages 679–694, 1974.
- Hotz, V.J., G.W. Imbens, and J.H. Mortimer. "Predicting the efficacy of future training programs using past experiences at other locations." *Journal of Econometrics*, 125:241–270, 2005.
- Johnson, T.R. and D.H. Klepinger. "Experimental evidence on unemployment insurance work-search policies." *Journal of Human Resources*, 29:695–717, 1994.
- Kalwij, A., A. Kapteyn, and K. De Vos. "Early retirement and employment of the young." *RAND Working Paper Series No. 679*, 2009.
- Kastoryano, S. and B. Van der Klaauw. "Dynamic evaluation of job search training." *Mimeo Tinbergen Institute*, 2009

- Kluve, J., D. Card, M. Fertig, M. Gora, L. Jacobi, P. Jensen, R. Leetmaa, L. Nima, E. Patacchini, S. Schaffner, C. Schmidt, B. Van der Klaauw, and A. Weber. "Active labor market policies in Europe: Performance and perspectives." *Springer Verlag*, 2007.
- Koning, P. "Estimating the impact of experience rating on the inflow into disability insurance in the Netherlands." *CPB (Netherlands Bureau for Economic Policy Analysis), Discussion Papers*, 37, 2004.
- Lalive, R., J.C. Van Ours, and J. Zweimüller. "The effect of benefit sanctions on the duration of unemployment." *Journal of the European Economic Association*, 3:1386–1417, 2005.
- Larsson, L. "Sick of being unemployed? Interactions between unemployment and sickness insurance." *Scandinavian Journal of Economics* 108, 97-113, 2006.
- Manning, A. "You can't always get what you want: The impact of the UK jobseeker's allowance." *Labour Economics*, 16:239–250, 2009.
- McVicar, D. "Job search monitoring intensity, unemployment exit and job entry: Quasi-experimental evidence from the UK." *Labour Economics*, 15:1451–1468, 2008.
- Meyer, B.D. "Lessons from U.S. unemployment insurance experiments." *Journal of Economic Literature* 33, 91-131, 1995.
- Meyer, B.D. "What Have We Learned from the Illinois Reemployment Bonus Experiment?," *Journal of Labor Economics* 14, pages 26-51, 1996.
- Micklewright, J. and G. Nagy. "Unemployment insurance and incentives in Hungary." CEPR Discussion Papers, 1995.
- Noailly, J. S. Visser, and P. Grout. "The impact of market forces on the provision of childcare: Insights from the 2005 Childcare Act in the Netherlands." *CPB (Netherlands Bureau for Economic Policy Analysis) Memorandum*, 2007.
- OECD, "Female labour force participation: past trends and main determinants in OECD countries", Working Paper, Economics Department, 2004.
- OECD, *Employment Outlook*, 2006.

- Parsons, D.O. “Self-screening in targeted public transfer programs.” *Journal of Political Economy*, 99:859–876, 1991.
- Riphahn, R.T. “Disability retirement and unemployment-substitute pathways for labor force exit?” *Applied Economics*, 29:551–561, 1997.
- Van den Berg, G.J. and B. Van der Klaauw. “Counseling and monitoring of unemployed workers: Theory and evidence from a controlled social experiment.” *International Economic Review*, 47:896–936, 2006.
- Van den Berg, G.J., B. Van der Klaauw, and J.C. Van Ours. “Punitive sanctions and the transition rate from welfare to work.” *Journal of Labor Economics*, 22:211–241, 2004.
- Van den Berg, G.J. and J. Vikström. “Monitoring job offer decisions, punishments, exit to work, and job quality.” *IFAU Working Paper*, 19, 2009.
- Van der Klaauw, B. and J.C. Van Ours. “Carrot and sticks – How reemployment bonuses and benefit sanctions affect job finding rates.” *Mimeo*, 2009.
- Wolthoff, R.P. “Simultaneous search and recruitment.” *Mimeo University of Chicago*, 2009.

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