

The Rise and Fall of Disability Insurance Enrollment in the Netherlands[†]

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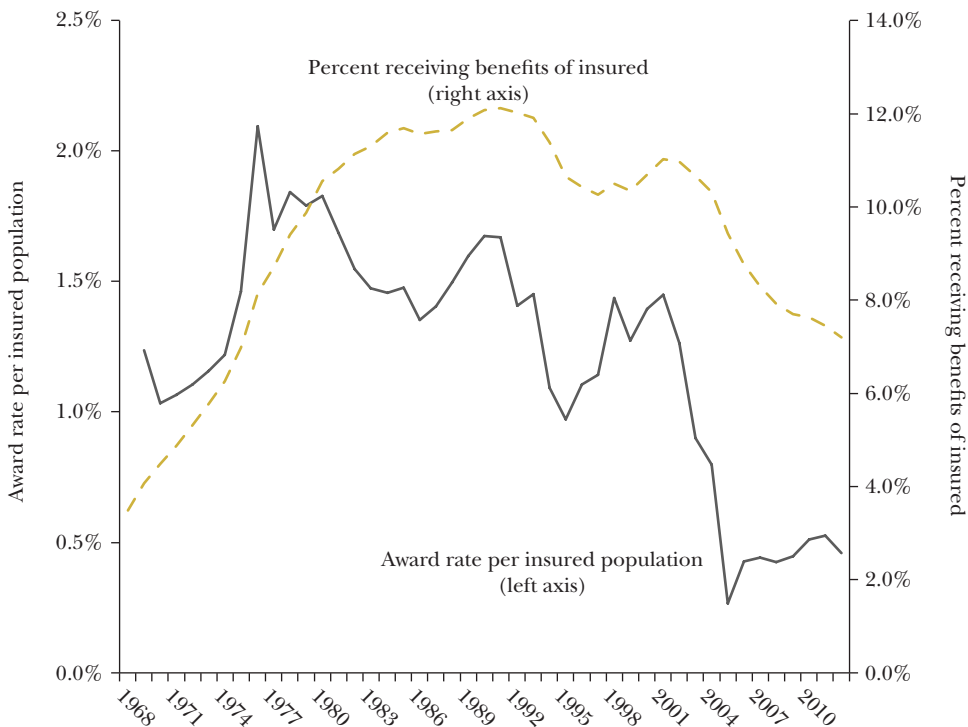
For most economists, “Dutch disease” refers to the problems that economies often face in their manufacturing or export sector when there is a sharp increase in the development of energy or other natural resources. The phrase originally referred to how the manufacturing sector of the Netherlands was adversely affected by discoveries of natural gas in the late 1950s and has become a catch-all term for the difficulties experienced by many economies with high levels of natural resource exports. But for many European labor economists, “Dutch disease” also has another meaning. It refers to the fact that the share of those in the Netherlands who received disability benefits tripled from 4 percent of those who were insured in the late 1960s to about 12 percent of those who were insured in the mid-1980s—and then remained more or less constant at this unprecedented level until the beginning of the 21st century. As recently as 15 years ago, this high level of Disability Insurance (DI) enrollment was considered to be one of the major social and economic problems of the Netherlands; indeed, the Netherlands was characterized as the country with the most out-of-control disability program of OECD countries (Burkhauser, Daly, and de Jong 2008).

But since about 2002, the Netherlands has seen a spectacular decline in its Disability Insurance enrollment rate. Figure 1 shows the rise and fall. The share of the insured population receiving Disability Insurance decreased from 11 percent

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Figure 1

Disability Insurance Award and Enrollment Rates per Insured Worker in the Netherlands, 1968–2012

Source: UWV (2012).

Note: The Disability Insurance award rate is the share of the insured population that started to receive disability payments in a given year.

in 2001 to 7.2 percent in 2012. Similarly, the Disability Insurance award rates—that is, the share of the insured population that started to receive disability payments in a given year—declined from 1.5 percent in 2001 to about 0.5 percent in 2012. Also, spending on disability programs in the Netherlands halved from 4.2 percent of the GDP in 1990 to 2.1 percent in 2007 (OECD 2010). This rate of spending on disability benefits is lower than in comparable countries like Sweden (2.2 percent of GDP) and Norway (2.5 percent). In recent years, the number of disability beneficiaries per worker in the Netherlands has decreased below the level of the beneficiaries per worker for Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) in the United States.

A first question we address is what aspects of the program contributed to the increase of the disability rolls in the Netherlands until 2002. In brief, the disability program was set up in a way that caused it to function as an attractive substitute pathway into unemployment insurance for both workers and employers. Indeed, from the perspective of workers, DI benefit conditions remained generous until

2006, particularly compared to the benefits that could be received from unemployment insurance and social assistance benefit schemes. Similarly, during that time, employers had reason to prefer that some of their workers would be awarded disability benefits instead of unemployment benefits because in the Netherlands this avoided substantial firing costs. In the context of the Netherlands' broad disability scheme, which insures all workers against all income losses due to both occupational and nonoccupational injuries, workers and employers had ample opportunities to take advantage of the system. The disability scheme came to function like a long-term program for workers who were less employable rather than being restricted to those having substantial health problems.

Next we turn to reforms of the disability system in the Netherlands undertaken from 1996 to 2006. We cluster these reforms in three broad categories: 1) reducing the incentives of employers to move workers to disability; 2) increased gatekeeping; and 3) tightening disability eligibility criteria while enhancing worker incentives. As we will show, changes in the screening process and increased employer incentives have both contributed to a substantial decrease in inflows to disability benefits. However, changes in the duration and level of disability insurance benefits have had less effect. As it turns out, a key to the Dutch disability insurance reform has been transferring certain costs and responsibilities to employers, thus changing their incentives. In the Dutch system, workers are first placed on sick leave for two years before they become eligible for disability benefits. During that time, employers have become responsible for the continued payment of wages for two years of sickness, while disability benefit costs are—with some delay—passed on to employers by experience-rated premiums.

While these reforms are generally perceived as successful, there is also new criticism and concerns regarding some aspects of the current Disability Insurance program. The biggest concern is with the high level of sickness and DI risks that are transferred to employers, which probably has made employers more reluctant to hire workers with discernible health conditions. Although rigorous evidence in this direction is still limited, we will discuss whether employers have increased the screening and sorting of such workers. Related to this point, we should highlight the increased DI inflow rates of workers with flexible and/or temporary jobs. For these jobs, the DI benefit costs are not passed on to employers on an experience-rated basis.

Putting the Dutch Disability Insurance reforms in a broader perspective, a pertinent question is whether the dramatic decrease in the inflow rate to disability benefits was accompanied by increased employment rates, or whether those who would have been identified as disabled just ended up in other public support programs. To shed more light on these issues, we use survey data on the health status of individuals to investigate how differences in employment rates between people with good and bad health has evolved since the disability reforms took place. In light of the stricter eligibility criteria for disability that resulted from the reforms, it is likely that workers with bad health conditions are awarded DI benefits less frequently in the new scheme. According to the data, the reforms probably enhanced the work continuation of male workers with poor health to some extent. From this perspective, one

may conclude that distortion in the labor supply of workers has decreased. At the same time, however, the share of unhealthy workers without work and receiving no disability benefits has increased. It thus is hard to infer whether the reforms in sum have contributed to the targeting efficiency of the DI program.

In the final section, we briefly summarize the main lessons that can be drawn from the reforms and discuss the major challenges the Dutch Disability Insurance system is facing in the years to come. Regarding the design of disability reforms in comparable industrialized countries, probably the most important lesson is that employers should be stimulated and facilitated in finding ways to prevent long-term sickness and absence, and subsequent disability inflow. The experiences with intensified gatekeeping during the sickness period show that employers can be pushed to take on this role. Indeed, the success of the Dutch disability reforms largely depends on the use of early interventions when a worker becomes sick, in the waiting period before they enter the disability rolls. At some point, however, employer obligations may become too sizeable, raising questions about the ability of employers to influence DI risks. Also if the obligations are too large, there is the risk that employers will try to evade incentives created by this kind of disability program reform.

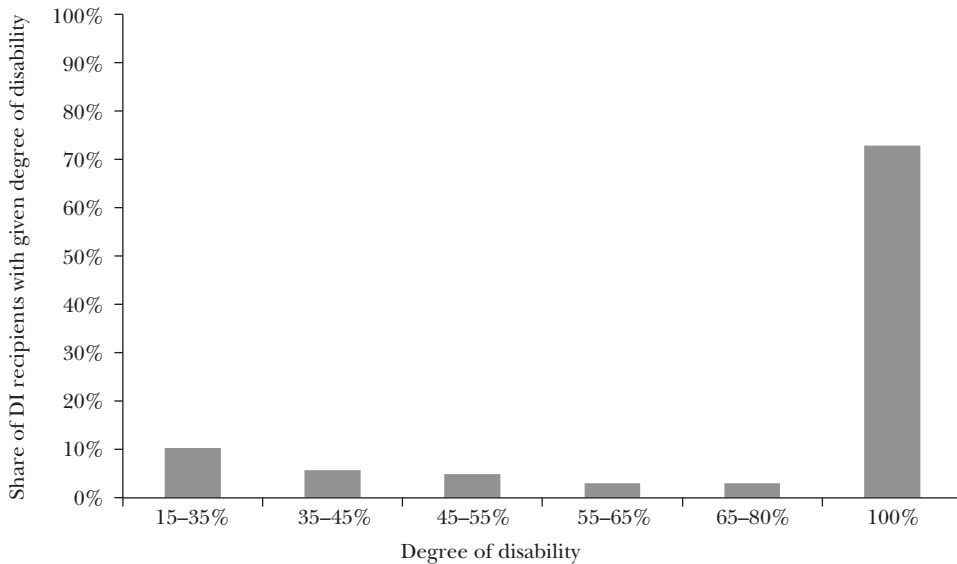
Disability Insurance in the Netherlands

Since 1967, the Disability Insurance program in the Netherlands has been provided as a public scheme that is mandatory for all workers. Disability benefits are provided if workers experience a loss of income capacity due to medical impairments of 35 percent or more.¹ For these workers, benefits provide insurance for 70 percent of the loss of income due to impairments. Since 2004, workers can apply for disability benefits after two years of sickness. During the so-called “waiting period,” employers are responsible for the provision of reintegration activities (services and/or adaptations that facilitate the worker’s return to work), and for the continued payment of wages. Disability insurance claims are assessed and premiums are set by the public social benefit administration called the UWV (*Uitvoeringsinstituut Werknemersverzekeringen*), which roughly translates as Employee Insurance Agency. The UWV determines the presence of impairments, the consequences for the earnings potential of an applicant, the degree of disability as a percentage of the worker’s former wage, and the corresponding disability benefit level. Workers may thus receive benefits for partial disability, which are supplemented by unemployment insurance benefits—and subsequently by social assistance benefits—if the residual earnings potential is not used sufficiently. Figure 2 shows that in 2013, 71 percent of all disability benefit recipients were classified as 100 percent disabled and thus received full disability benefits, whereas workers with 15 to 35 percent loss of earning capacity—constituting 10 percent of all recipients—were the second-largest

¹ For workers with residual capacities, a set of regular jobs is selected that meet the worker’s physical and mental impairments. Based on the wage rates of these jobs, the residual earnings capacity is determined.

Figure 2

Shares of Partially and Fully Disabled DI Benefit Recipients in the Netherlands, 2013



Source: UWV (2012).

group. It should be noted that the threshold value for disability benefits was raised from 15 to 35 percent in 2006. Thus, workers with a disability degree that is lower than 35 percent entered the scheme before 2006.

The Dutch Disability Insurance system has two important institutional features that differ from systems in most other high-income countries. These features haven't changed much since inception in 1967, not even after the reforms that started in the late 1990s. First, the Dutch disability program covers all workers against all income losses that result from both occupational and nonoccupational injuries. In most other high-income countries, eligibility for disability insurance is constrained by work history requirements or limited to occupational injuries only. Including all workers against the whole gamut of medical contingencies increases the possibility of sizable screening errors in disability determinations (as discussed, for example, in Parsons 1991) where the social benefit administration is more likely to prioritize on minimizing erroneous denials ("Type I errors") at the cost of increasing erroneous admissions ("Type 2 errors"). Clearly, the sharp rise of disability enrollment in the Netherlands for two decades after the mid-1960s and the continued high levels of disability for two decades after that suggests that applicants have in the past successfully exploited this feature of the Disability Insurance system (Burkhauser, Daly, and de Jong 2008).

Second, wage payments for sick workers are continued in the waiting period that precedes disability claims. This scheme was funded from sectoral insurance

premiums until 1996, and privatized since then—that is, employers are responsible for the continued payment of wages during sickness. Clearly, the Dutch sickness benefit scheme differs from the US system, in which individuals who are typically no longer working and receiving wages must take the initiative to submit disability applications. With continued wage payments during a period of sickness and prior to the disability assessment, the Dutch system does not provide strong incentives for disabled (or sick) workers to resume work quickly. As a result, workers with less-severe health problems are less likely to screen themselves out of DI benefit receipt.

These two main institutional features of Dutch Disability Insurance, with their incentives for broad coverage of impairments and limited self-screening, thus laid the ground for high Disability Insurance inflow rates after the program's inception in 1967, and, accordingly, a continuous increase of DI enrollment to unprecedented levels.² The relative attractiveness of disability vis-à-vis unemployment insurance effectively triggered workers and employers to take advantage of the scheme. Compared to unemployment insurance, which also covers 70 percent of the loss of income, the Dutch disability system provides benefits with entitlement periods that are unrestricted and without the job search requirements that apply to the unemployed. Moreover, statutory disability benefits were (and are) often supplemented by nonstatutory benefits for specific collective labor agreements, raising the replacement rate of workers from 70 to 80 or even 90 percent in the first years of receiving disability benefits (van Vuren and van Vuuren 2007).

In the past, moving unwanted workers into Disability Insurance rather than into unemployment insurance has also been attractive for employers. Until 1996, employers did not bear the costs of sick pay and Disability Insurance benefits for their own employees. However, if employers fired a worker, especially an older worker with a long work history, the employer faced substantial costs. In the Netherlands, the general rule applies that each additional year of working history implies one extra monthly salary as severance pay. For older workers, this means that the amount of severance pay could be equal to three to four years of annual salary. As a result, many employers preferred to use disability insurance as a substitute pathway for unemployment insurance, even if there was the risk that the disability claim would not be awarded at the end of the sickness benefit period. De Jong (2008) concludes that the disability insurance scheme has been used in this way to support the transformation from an industrial to a service-oriented economy by facilitating massive lay-offs in vulnerable sectors. For many workers in these sectors, disability effectively functioned as an early retirement route (Kerkhofs, Lindeboom, and Theeuwes 1999). Thus, workers and employers had a mutual interest in using the disability insurance scheme as a substitute pathway into unemployment and early retirement.

Although the potential for substitution effects between disability and unemployment is self-evident, inferring the actual size of hidden unemployment within

² While Dutch Disability Insurance inflow rates have varied substantially over time, DI outflow rates have been fairly constant over time, ranging around 11 percent. As a result, only limited variation in DI enrollment rates can be explained by (variation in) DI outflow rates.

those categorized as disabled is not an easy task. When workers have become incapable of performing their current tasks, either medical or functional criteria may predominate. This renders it almost impossible to know if an individual is “hidden unemployed”—particularly when someone has entered into the disability insurance scheme only recently and the person’s remaining work opportunities are, as yet, undiscovered.

To circumvent these problems, studies of the importance of substitution effects between disability and unemployment typically rely on indirect inferences based on inflow rates to disability in a given year, or on overall disability enrollment rates, to assess the overall size of hidden unemployment. For example, Autor and Duggan (2006) point out that application rates for disability insurance are countercyclical—that is, application rates for disability rise during recessions—while illness is not itself directly countercyclical, which suggests substitution effects between disability and unemployment insurance. Koning and van Vuuren (2007, 2010) follow a similar research strategy for the Netherlands, seeking to explain inflow rates for disability and unemployment insurance. Without substitution effects between the two insurance programs, average wages and sectoral growth levels should affect only the numbers of those receiving unemployment insurance and not the numbers receiving disability. However, both these variables do affect inflows to disability benefit receipt, and in this way Koning and van Vuuren infer that about one-quarter of the inflow into disability insurance from 1993 to 2002 consisted of hidden unemployment. Aarts and de Jong (1992) take an alternative approach. Using medical information of disability benefit recipients in the 1980s, they find that hidden unemployment among recipients of disability insurance benefits ranges between 33 and 51 percent.

Assessing the Effectiveness of Disability Policy Reforms

Policymakers in the Netherlands started reforming Disability Insurance in the early 1990s, and while these efforts at first seemed promising, these efforts did not persist. For example, disability benefits were reduced in 1993; these declines were largely offset by (almost) equal increases in supplementary private benefits in the following years, leaving the payments to those who were disabled much the same. Another step in 1993 was the start of a large-scale program of medical re-examinations of existing recipients of disability benefits. These re-examinations had a large effect, amounting to a decline in the probability of receiving disability benefits of 5 percentage points (Borghans, Gielen, and Luttmer 2014). (About 30 percent of the reduction in disability insurance spending was cancelled out by additional spending on unemployment insurance and social assistance.) But these measures were not politically sustainable and ended after two years.

However, in the following years, the Dutch government implemented reforms that persisted and substantially affected disability inflow rates. We will cluster these reforms in three broad categories: 1) enhancing employer incentives to avoid

disability insurance; 2) increasing screening for disability; and 3) tightening eligibility for continued receipt of disability benefits and increasing work incentives for recipients.

Enhancing Employer Incentives (1996, 1998)

Starting in 1996, the Dutch government undertook a series of policies to change the incentives of employers so they would be less eager to facilitate the movement of workers to disability. The idea was that employers should be made responsible for a substantial part of the sickness and disability benefit costs of their workers, thus encouraging activities that would prevent sickness and disability and reintegrate the sick and disabled into the workforce. To start with, the sickness benefit program was privatized in 1996, making employers fully responsible for these costs. Employers could reinsure this risk with private insurers or bear this risk themselves. This change in the program resulted in a decline in absence rates (De Jong and Lindeboom 2004).

In 1998, the disability insurance system was experience-rated: that is, the amount that employers pay into Disability Insurance was linked to the employers' past experience of employees receiving disability. Specifically, employers were to bear the costs of the first five years of Disability Insurance benefits. (In 2006, this experience-rating period was extended to ten years.) Initially, the experience-rating system did not cause substantial controversy among employers and policymakers. By 2003, the experience-rating incentive had reached its maximum impact, and about 31 percent of all disability insurance costs were experience-rated (Koning 2009).

Given that the privatization of sickness pay and the introduction of experience rating for disability insurance were the key policy reforms that were taken between 1996 and 2001, one might conclude that this alteration in employer incentives did not make a substantial difference. After all, looking back at Figure 1, the inflow rates to receipt of disability benefits varied from 1.1 to 1.4 percent of the insured population between 1996 and 2001, which is only a little lower than between 1990 and 1995. This simple eyeball test would thus suggest that even with a change in incentives, employers had limited ability to prevent inflows to the disability rolls.

However, there are strong reasons to believe that the effectiveness of experience rating increased in later years. Koning (2009) argues that the effects took substantial time to come into force, in part because many employers were initially unaware of the details of the new system. Particularly from the perspective of small and medium-sized firms, the experience-rating system was complex, and it was seemingly unimportant—as long as employers were not seeing a close connection between flows from their company into disability benefits and their employer-paid disability insurance premiums. Along similar lines, Hyatt and Thomason (1998) and others have argued that the awareness of experience rating among individual firms may be limited. Moreover, employer awareness of experience rating seemed especially low for firms who were benefitting from lower Disability Insurance premiums.

To estimate the potential effect of experience rating, Koning (2009) employs a difference-in-differences strategy, looking at changes in registered

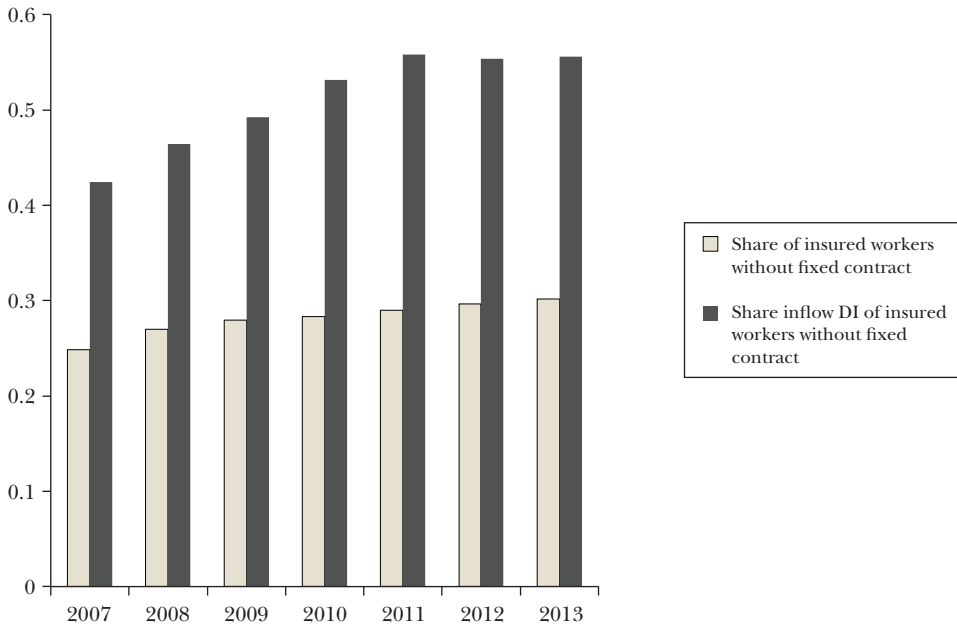
inflow rates to disability benefits for employers who *had*, versus *had not*, experienced premium raises (so far). This strategy takes advantage of the rule that past inflow into disability benefits affected premiums with a lag of two years (as such, mean-reversion effects are controlled for). Following this approach, the response to an unanticipated increase in disability insurance premiums is estimated to be a 15 percent decrease in the disability inflow rate. The experience-rating plan was thus effective for individual employers, but its macro-effect had to accumulate over time. Many employers still needed a “wake-up call” to pay attention to experience rating and subsequently increase activities that could prevent future sickness and disability.

While awareness of the experience-rating plan among employers has grown, criticism of experience rating has grown as well. This is not surprising, as the Netherlands stands out as the country with probably the highest experience-rating incentives relating to disability insurance in the world today. Employer organizations argue that they cannot bear the financial risks associated with experience rating, which, after all, are added to the sick-pay costs that were already there during the waiting period and also cover disability for nonoccupational reasons.³ Moreover, Dutch employers typically have no room to appeal the decision to award disability benefits (in the context of workers’ compensation claim decisions, there is usually room to appeal, as discussed in Tompa, Cullen, and McLeod 2012).

In this context, the most straightforward way for Dutch firms to circumvent experience-rating incentives in the Netherlands is to hire workers with temporary contracts. These individuals are sometimes labeled as “safety netters.” If temporary and flexible workers are awarded disability benefits, the costs are not assigned to individual employers but financed by collective funds. Thus, one would expect to see an increase in the share of temporary or flexible employment, particularly of high-risk workers with bad health conditions.

Although there is no causal evidence on the effect of experience rating on type of labor contract offered, a basic comparison of the rate of inflow to disability from workers with fixed and temporary contracts suggests that sorting effects have become more important. In particular, Figure 3 shows that the share of disability benefit awards to “safety netters” out of the total number of disability awards has increased from 42 percent in 2007 to 55 percent in 2011 (UWV 2013). This trend cannot be entirely explained by the (much smaller) decrease in the share of workers with permanent contracts; it rather suggests that vulnerable groups with bad health conditions have sorted into flexible jobs. Thus, although employers are not allowed to screen out workers with health conditions when doing permanent hires, one might doubt the enforceability of this law. This pattern raises concerns about the success of experience rating as well as the notion that employers should play a key

³ To illustrate the implications of wage continuation and experience rating, suppose a worker becomes fully disabled; this means that the employer can become responsible for two years of full wages for this worker along with ten years of disability benefits.

*Figure 3***Workers in Flexible and Temporary Jobs Expressed as a Share of the Total Number of Insured and as a Share of DI Inflow (2007–2013)**

Source: UWV (2013b).

role in a program for the well-being of workers. We will return to this issue in the next sections.

Stricter Screening: The Gatekeeper Protocol (2002)

The introduction of the Gatekeeper protocol in 2002 is generally considered to be the most effective policy measure that has been taken to curb the rate of those receiving disability benefits. The Gatekeeper protocol specifies the legal responsibilities of both the employer and the incapacitated worker during the period of sickness and absence before the worker applies for disability benefits. The protocol means that the social benefit administration (the UWV) is no longer involved in the process of reintegrating sick workers during the waiting period but acts purely as a gatekeeper.

The Gatekeeper protocol spells out the required behavior of employers and workers starting with the first weeks of absence from the job. In particular, after a maximum of six weeks of absence, the employer and worker should make a first assessment of medical cause and functional limitations. Based upon this assessment, they subsequently must draft a return-to-work plan within eight weeks of absence. This plan should include several dates to evaluate and modify the plan, if relevant. If the worker has not fully returned to work at the end of the waiting period, the worker

then files a disability benefit claim. Benefit claims are only considered admissible by the social benefit administration if they are accompanied by a return-to-work report, containing the original plan and an assessment as to why the plan has not (yet) resulted in work resumption. If the procedure was not followed, the employer may be obliged to continue providing sick pay for some additional months rather than having the worker transfer to disability benefits.⁴

In this way, the Gatekeeper protocol encourages the disability prevention and reintegration activities of employers. The protocol forces employers to focus their attention at the onset of sickness, when the opportunities for recovery and work resumption are probably most substantial. The stricter screening also triggers mechanisms of self-selection and self-screening among applicants with less-severe health conditions (Parsons 1991). So the protocol with its stricter screening involves stronger incentives—both for employers and workers.

The Gatekeeper protocol appears to have had an immediate impact on the behavior of employers and workers. For example, Figure 1, presented earlier, showed a sharp decrease in the percentage of the population receiving new disability insurance awards, from 1.4 percent of the insured population beginning disability benefits in 2001 to 0.8 percent in 2004. The Gatekeeper protocol was the only reform that took place during this time.

Using quarterly data, van Sonsbeek and Gradus (2013) investigate the contribution of the Gatekeeper protocol and some other measures on the decrease in disability inflow rates. They argue that these policies have reduced the disability award rates by about 40 percent, compared to the level prior to 2002. As this effect is far more substantial than the (immediate) impact of employer incentives, one could well argue that the Gatekeeper protocol has made the costs of wage continuation and experience rating more salient to employers.

To shed more light on the mechanisms explaining the reduced inflow levels, de Jong, Lindeboom, and van der Klaauw (2011) exploit a field experiment with regional variation of the intensity of screening by the social benefit administration. According to their analysis, stricter screening causes both self-selection and increased effort to resume work during sickness absenteeism—with both effects of about equal size. These mechanisms seem to have been strengthened when the mandatory waiting period of absence before receiving disability benefits was extended from one to two years in 2004. In our view, this extension of the mandatory waiting period is best understood not as a separate reform, but as part of the Gatekeeper protocol.

Although the Gatekeeper protocol seems to have contributed to the decrease in inflow rates to disability, there is concern that it may have had some unintended

⁴ So far, the number of lawsuits that occur when employers and workers disagree on a return-to-work plan, or when plans are not executed, is limited. There are various reasons for this. First, employers face the risk of continued wage payments if there is no return-to-work plan. Second, workers can get fired by their employers if they do not cooperate. Third, mediators from the public employee insurance agency can be contacted in case of disagreements. Ultimately, if the employer and worker still disagree after this, a lawsuit may well occur.

effects. First, one concern is that workers with less-severe health conditions have sorted into other social benefit schemes, with unemployment insurance as the most likely candidate. However, de Jong, Lindeboom, and van der Klaauw (2011) find no evidence that increased gatekeeping by UWV resulted in more inflow into unemployment insurance, suggesting that most workers who did not receive disability benefits under the Gatekeeper program resumed their work. Second, and similar to the enhancement of employer incentives prior to 2002, the protocol might have made employers more hesitant to hire workers who have a higher risk of bad health. We return to this issue at the end of this article.

2006: Tightening Eligibility Criteria and Increasing Work Incentives

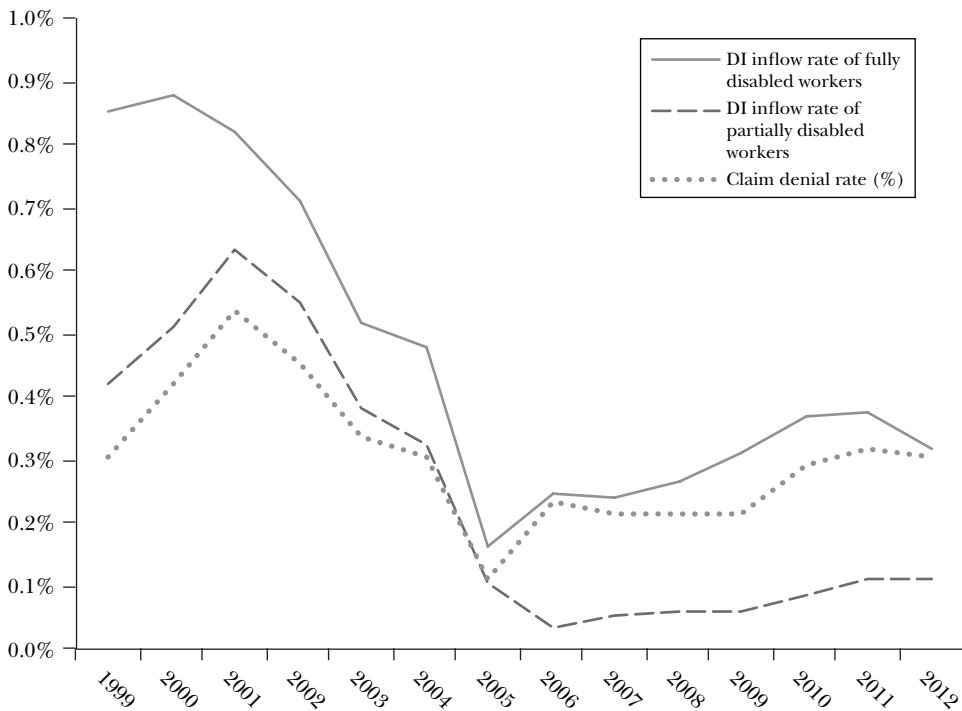
The most recent disability insurance reforms entailed the replacement of the old Invalidity Insurance Act (“WAO” or *Wet op de Arbeidsongeschiktheidsverzekering*) by a new disability law called the Work and Income (Employment Capacity) Act that included new benefit conditions (“WIA” or *Wet Werk en Inkomen naar Arbeidsvermogen*). Although there was a widespread belief that the previous, inflow-related policy measures were effective in curbing inflow to disability benefits, policymakers felt that the program still was not effective in assisting disabled workers in reaching their full employment potential. The rates of recovery and work resumption for disabled workers were still negligible—although many of the impairments had been expected to be temporary. Therefore, to stimulate the work resumption of workers—particularly those with temporary and less-severe impairments—the new disability law included three major changes.

First, the new disability insurance program introduced the distinction between two types of benefits: one for workers who are fully and permanently disabled and one for workers who are partially and/or temporary disabled. For the group of fully and permanently disabled, disability benefits were raised to 75 percent of the last earned wage. Admission to this scheme has been very strict and limited to a selective group of impairments that are expected to be permanent. Consequently, the yearly inflow rate is only about 0.1 percent of the insured working population. The idea behind this distinction was that the room for moral hazard would be negligible for the small group of workers with severe and permanent impairments. Consequently, benefit levels could be increased and employers were no longer held financially responsible for this group.

Second, the eligibility criteria for the partial scheme have been tightened by raising the minimum degree of disability from 15 to 35 percent of the previously earned wage. Workers with less-severe health impairments are thus expected to continue their employment with some adaptations or—if they are fired—to apply for unemployment insurance. Figure 4 shows that this way of tightening Disability Insurance eligibility has led to a sharp increase in the number of claim denials since 2006. This is mirrored by a decrease in the inflow into partial DI schemes that are awarded, while the inflow into full DI schemes has increased to some extent. In this respect, van Sonsbeek and Gradus (2013) argue that the higher disability threshold decreased disability insurance award rates by about 25 percentage points. Since its

Figure 4

Inflow Rate into Disability Insurance and the Annual Number of Claim Denials, 1999–2012



Source: UWV (2012).

Note: Here “fully disabled” is defined as a degree of disability higher than or equal to 80 percent, and “partially disabled” refers to workers with a disability degree below 80 percent.

inception in 2006, the reform is thus changing the composition of workers receiving disability benefits. By increasing the degree-of-disability thresholds in awarding benefits, the Netherlands system moves closer to that of other OECD countries, most of which have substantial thresholds.

Third, the new system introduced wage subsidies to encourage partially disabled workers to use their remaining earnings potential. Similar to the system before 2006, partially disabled individuals receive wage-related benefits that replace 70 percent of the difference between their pre-disability wage and their wage potential in the first years of their benefit. The length of this period is determined by their working history and lasts 38 months at maximum. After this period, however, workers only continue receiving this level of disability benefits if they work more than 50 percent of their residual earnings capacity. Otherwise, their benefit level is set equal to the level of social assistance.

There are strong reasons to believe that the introduction of the wage subsidy for partially disabled has had only a limited impact. Since 2006, only 29 percent

of the disability awards consist of workers that are diagnosed as partially disabled. In addition, many collective bargaining agreements have provided nonstatutory benefits to offset the drop in statutory benefits in the follow-up period. One also should keep in mind that the targeted individuals have been out of the workforce for several years—starting with the waiting period of sick pay of two years and followed by some years of benefits that are wage-related and do not inhibit strong work incentives. Similar to the experiences with the US Ticket-to-Work program, which also seeks to encourage the disabled to return to work, it is likely that the readiness to resume work has eroded during the period away from the workforce (Autor 2011).

Summing Up the Dutch Reforms

The key to the success of disability insurance reform in the Netherlands has been the intensified role of employers in preventing long-term sickness, absence, and subsequent disability, with a strong emphasis on early interventions. The employer incentives increased the economic urgency among employers to exert sickness and accident prevention and workforce reintegration activities, while the Gatekeeper protocol has facilitated employer awareness and guided employers in their new role. Most of the gains in curbing inflow to disability benefits have been made in the waiting period that precedes the application of claims.

The new disability law that started in 2006 has made a smaller but still substantial contribution to the decreased inflow to disability benefits. The main effect came from a tightening of eligibility criteria, which caused fewer partially disabled workers to be awarded disability benefits. This probably has limited the ability of the new system to provide well-targeted and effective return-to-work incentives to the less-severely disabled.

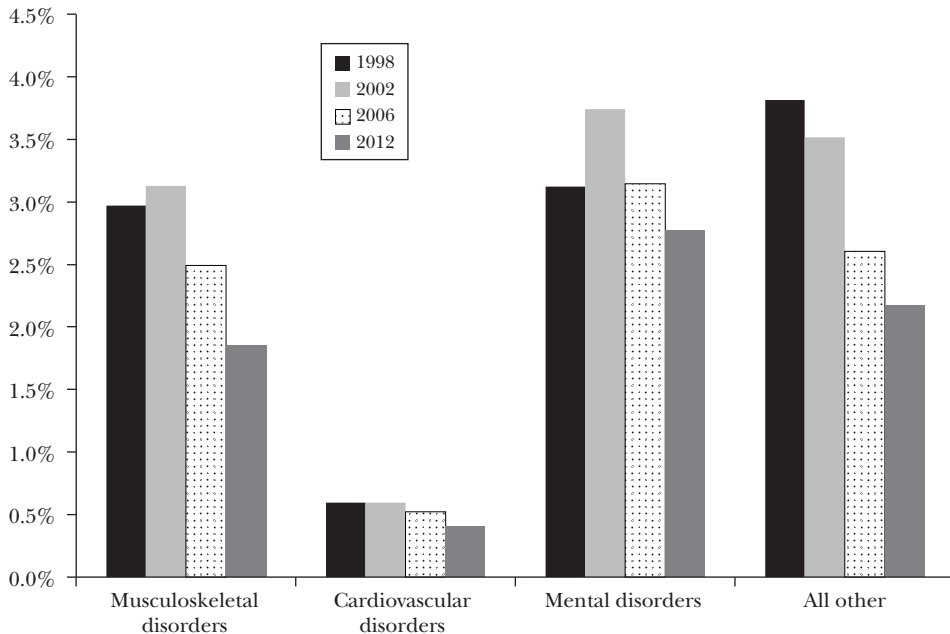
One major concern with the reforms is the high level of obligations and financial risks born by employers. As a consequence, employers may now be more reluctant to hire vulnerable workers, in particular those with existing health conditions. In what follows, we will therefore consider the position of vulnerable worker groups: how did the reforms impact the structure of impairments that end up receiving disability benefits, and how have the employment probabilities of disabled workers evolved over time?

Labor Market Effects among Disabled Workers

Which Impairments Were Affected Most by the Reforms?

With reforms that focused on enhancing the screening for less-severe impairments and encouraging re-entry to the workforce, one would expect major shifts in the composition of disability beneficiaries. Figure 5 shows the evolution of the percentage of awards by diagnosis groups. The reforms seem to have affected all broad impairment types, but to different degrees. The percentage of Disability Insurance recipients with musculoskeletal disorders per insured has almost halved

Figure 5

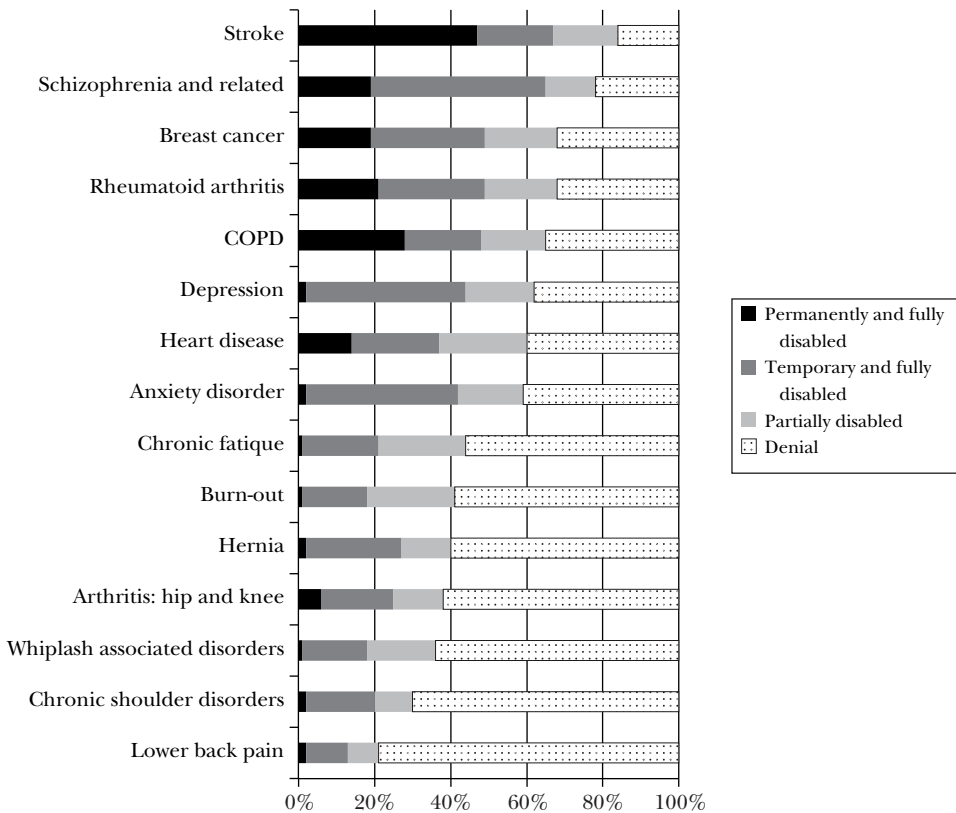
Disability Insurance Enrollment Rate per Insured Worker, Stratified by Diagnosis Group (1998, 2002, 2006, and 2012)

Source: UWV (2012).

since 2002. This dramatic decrease largely coincides with a more general decrease in findings of partial disability. Individuals with less-severe impairments—for example, those with modest levels of lower back pain—have either resumed work in the two-year waiting period of sickness or did not meet the criteria of the new disability scheme.

The decrease in disability in the Netherlands has been accompanied by only a small reduction in the rate of disability awards due to mental disorders. Indeed, mental disorders made up 29.7 percent of the diagnoses for new disability enrollment in 1998 but were 38.5 percent of the new diagnoses in 2012 (UWV 2012). This greater relative importance of mental disorders as a cause of disability is a trend that most OECD countries are facing, with some countries—like Sweden and Denmark—having even steeper increases in the share of disability awards due to mental disorders (OECD 2011). The high incidence of mental disorders among the disabled helps to explain why it has proven difficult to bring disabled workers back into the workforce. Those in this category are often labeled as “fully and temporarily” disabled, but in practice, the number of workers in this category that fully recover has proven to be negligible, and many of these individuals will eventually

Figure 6
Distribution of Most Important Diagnosis Groups across Disability Insurance Benefit Types and Application Denials in 2006



Source: UWV (2007).

Note: COPD is chronic obstructive pulmonary disease.

transfer to the more generous scheme for permanently disabled individuals, rather than back to work.⁵

Figure 6 takes a closer look at the types of diagnoses that are made for disability applications in 2006, the first year of the new disability scheme. Three patterns in these data are worth noticing. First, almost all disability applications with musculoskeletal disorders as the primary impairment—that is, lower back pain, chronic shoulder disorders, and hernia—are denied and virtually have no chance of being

⁵ Of the temporary and fully disabled workers that entered the disability insurance system between 2006 and 2010, only 14 percent have left the scheme (de Jong, Everhardt, and Schrijvershof 2013). These exits from the status of temporary and full disability include those who reach retirement age and those who are reclassified as permanently and fully disabled workers, along with those who have at least a partial recovery.

awarded full and permanent benefits. Second, fully and temporarily disabled workers are an important group among the more severe mental disorders, like schizophrenia, depression, and anxiety disorders. Finally, only a few severe impairments—such as stroke and chronic obstructive pulmonary disease (COPD)—have a substantial probability of being qualified as fully and permanently disabled. Once more, this reflects the stringency of the new system.

When taking a broader perspective, Figure 6 also reveals that the largest share of benefits awarded are effectively experience-rated; it is only for workers with the most severe impairments that DI benefits costs are not borne by the employer. As the risk of these impairments is probably outside the control of the employer, this way of differentiating seems likely to be efficient. At the same time, one would expect the degree of experience rating to be highest for impairments that are related to work, particularly for musculoskeletal disorders. But since these physical impairments have the lowest probability of being awarded with benefits, the effective preventative impact of experience rating will be limited for this group.

Labor Supply Effects

The changes in the Dutch disability system, and in particular the changes of 2006, aimed at stimulating work resumption rates of those with temporary and less-severe impairments. As disability enrollment rates have declined dramatically, the natural question that arises is whether these changes are accompanied by increases in employment rates of those with impairments relative to their healthy counterparts. To explore this issue, we use the POLS health survey from Statistics Netherlands (*Permanente Onderzoek Leefsituatie*) to describe trends in employment rates of those in good health versus those in bad health.⁶ The share of individuals between 25 and 65 years of age that report bad health is fairly constant around 20 percent in all years in our sample.

Table 1 depicts differences in employment rates between individuals in bad and good health—labeled the “health employment gap”—for both men and women in the POLS data. These employment gaps can be substantial, ranging from 20 to about 30 percentage points of the sample. The figure shows for males a reduction in the health employment gap of about 5 percentage points since 2002. For females, the gap remains more or less constant over time. It should be noted that the different trend for females is in part due to increases in participation rates among healthy females as well. For men, however, participation rates among healthy individuals are almost constant over time.

With declining employment gaps for males, it becomes relevant to see whether this is reflected in differences in benefit receipt *of any benefits* between those in good

⁶ The data are the *Permanente Onderzoek Leefsituatie* (POLS) data from 1998, 2002, and 2006 and the *Gezondheidsenquête* Health Survey of 2010. The POLS data consist of repeated cross-sections and come with sample weights that we use to construct our figures. Bad health is derived from the response to a question regarding an individual’s general health and equals one if the response is fair, bad, or very bad. Good health is defined as the complement of bad health (corresponding to a response of good or very good). Employment is defined as having a paid job and working more than 12 hours per week.

Table 1

Health and Employment of Males and Females (1998, 2002, 2006, and 2010)

	1998	2002	2006	2010
<i>Males</i>				
Employment rate of individuals with good health (%)	86.1	86.7	84.9	83.4
Employment rate of individuals with bad health (%)	57.6	55.8	59.0	57.2
Health employment gap (%)	28.5	30.9	25.9	26.2
<i>Females</i>				
Employment rate of individuals with good health (%)	56.4	65.5	68.9	71.0
Employment rate of individuals with bad health (%)	35.1	35.7	40.6	40.0
Health employment gap (%)	21.3	29.8	28.3	31.0

Source: POLS.

Note: The health employment gap is defined as the difference between the employment rates of individuals with good health and bad health, measured in percentage points.

health and bad health. Here, “benefit receipt” broadly includes disability benefits, unemployment benefits, social assistance (for those with low incomes) and early retirement benefits. To shed more light on this, Table 2 shows for males a drop of 10 percentage points from 2002 to 2010. While there has been a general decline in benefit recipient rates of all men, the decline in benefit rates of those in poor health was of course considerably stronger. The 10 percentage point drop in the benefit gap between unhealthy and healthy men is larger than the about 5 percentage point reduction in the employment gap, implying that some of those who have left benefits did not obtain “substantive gainful employment.” For women, one can observe a slight increase in the benefit receipt of those in bad health versus those in good health over the longer period from 1998 to 2010. Again, this may well stem from increases in participation rates of women in good health as well.

These descriptive analyses suggest that the Dutch Disability Insurance reforms probably enhanced the work continuation of male individuals with poor health. At the same time, however, the share of less-healthy males without work and receiving no benefits has increased as well. This finding could imply that some disabled people who are unable to work are being rejected for disability insurance, or that it has become harder for marginally healthy workers to claim disability benefits, or both.

Discussion and Outlook

The key to the success of Disability Insurance reform in the Netherlands has been the intensified role of employers in preventing long-term sickness, absence, and subsequent inflow to receipt of disability insurance benefits. The Gatekeeper protocol implemented in 2002 has provided employers guidance to implement

Table 2

Health and Benefit Receipt of Males and Females (1998, 2002, and 2010)

	1998	2002	2010
<i>Males</i>			
Benefit rate for individuals with good health (%)	9.4	7.1	8.3
Benefit rate for individuals with bad health (%)	47.8	46.9	38.1
Health benefit gap (%)	38.4	39.8	29.8
<i>Females</i>			
Benefit rate individuals with good health (%)	9.8	8.4	7.7
Benefit rate individuals with bad health (%)	34.4	37.6	36.9
Health benefit gap (%)	24.6	29.2	29.2

Source: POLS.

Notes: The health benefit gap is defined as the difference between the benefit rates of individuals with bad health and good health, measured in percentage points. Here, “benefit” broadly includes disability benefits, unemployment benefits, social assistance (for those with low incomes), and early retirement benefits.

their new role, while the tighter eligibility criteria since 2006 seem to make the Dutch disability system less susceptible to providing disability benefits to those who can still work. These reforms probably have improved the targeting efficiency of the Dutch disability system, leading to higher employment rates among male individuals with both bad and good health. At the same time, however, the number of marginally healthy workers without benefits and without work has increased as well.

Given the decline in the rates at which disability benefits are being awarded each year, one might be inclined to think that the rates of people receiving disability as a share of the workforce will decline further in the years that come. However, the Dutch Disability Insurance system still includes some features that may undermine its long-term sustainability. In what follows, we will discuss two features that may have relevance for many other high-income countries: increased labor market flexibility and the inability of the program to get disabled workers to resume work—even for those whose impairments are temporary.

Changing Employer Incentives

The cornerstone of the current Dutch disability insurance system is the interest that employers should have in investing in the health and safety of their workers. However, this interest implicitly assumes long-standing or near-permanent employment contracts. In this context, some health problems accumulate over time and investments in workplace health and safety may take time to effectuate. With a continuous rise of flexible and temporary contracts, the case for sick pay costs and experience rating that stretch out over a long time window becomes weaker. Indeed, some argue that the financial risks of sickness and disability are too high for some firms, reducing the flexibility they need to adapt to labor market conditions.

As we argued earlier, it is likely that employers have responded to the incentives by hiring high-risk workers on a temporary basis only. One obvious policy response would be the introduction of employer-incentives-linked disability benefits for those hired on temporary and flexible contracts as well. Recently, the Dutch government decided to implement such plans beginning 2016: that is, employers will also be responsible for workers on temporary and flexible contracts both during the two-year waiting period of sick leave prior to the disability application and, given experience rating, after inflow into the disability system. This change will discourage substitution into temporary contracts, but serious doubts could be raised about the ability of employers to influence the risk of sickness and disability for many short-term and temporary workers.

Policymakers currently are also considering other ways of redesigning employer incentives to curb sickness and disability, searching for methods that would provide strong incentives but with lower financial risks for employers. The most likely candidate appears to be the adjustment of the experience rating of disability insurance premiums by somehow reducing the share of disability costs that would be passed back to the employer. Whether this could be done by means of a shorter time window for experience rating or a lower percentage payment is a question that calls for further research into the optimal design of incentives in this system.

Activating Disabled Workers

While the Dutch disability reforms have been successful in curbing inflow rates to disability benefits, the system has become less effective in enhancing and employing the residual work capacity of workers that are awarded benefits. This difficulty is not surprising, because a substantial group of workers with less-severe impairments is no longer eligible for disability benefits. Moreover, many of those diagnosed as temporarily and fully disabled are mentally impaired workers with low education levels (de Jong, Everhardt, and Schrijvershof 2013). Even in cases where one might expect these individuals to improve for medical reasons, the switch to substantial and gainful employment is only rarely observed.

One contributing explanation for the persistence of this area of disability can be found in the design of work incentives in the new scheme. At present, a fully disabled worker who finds partial employment will then have his or her level of disability reassessed. In addition, the switch from full to partial disability incurs the risk of not finding employment with sufficient earnings in order to receive the wage supplement. In effect, the current setup of incentives thus effectively encourages fully and temporary disabled workers to abstain from work—even if their health recovers in a way that would allow them to regain part of their earnings potential. As we pointed out earlier, a related problem is that the incentive to return to work often arrives too late to make a difference, given how long individuals have already been out of the labor force. When putting this in a broader perspective, the question arises whether the Dutch Disability Insurance program puts too much emphasis on employer incentives while the effectiveness of worker incentives is still limited.

Closing Remarks

Workers with poor health and low productivity levels are a vulnerable group in the labor market and will pose a challenge for policymakers in any country that provides disability benefits. Because the definition of disability depends explicitly on the job opportunities of workers, there always will be beneficiaries of disability payments who are capable of working but insufficiently productive to earn their own living (see also Autor and Duggan 2006). This particularly holds for countries where statutory minimum wages are relatively high—such as the Netherlands, as well as Sweden and Norway—resulting in more limited opportunities for (formerly) disabled workers to resume work. There is inevitably a group of workers for whom early interventions do not hold much promise and for whom working is not viable—whether these workers are classified as disabled or not.

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