

# **Disability Benefit Growth and Disability Reform in the U.S.: Lessons from Other OECD Nations**

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## **1. Introduction**

Unsustainable growth in program costs and beneficiaries, together with a growing recognition that even people with severe impairments can work, led to fundamental disability policy reforms in the Netherlands, Sweden, and the United Kingdom. These reforms substantially reduced disability reciprocity rates in these countries and put their programs back on a sustainable fiscal footing. For the most part the reforms focused on slowing entry onto long-term disability cash transfers by keeping newly impaired workers in the labor market. Although there were some efforts to reduce the number of existing beneficiaries through disability reassessments and work incentives, these were both less important and less successful. In Australia, rapid growth in disability reciprocity led to more modest reforms; disability reciprocity rates have fallen slightly in response, but there are reasons to believe the system remains vulnerable to a resurgence in growth.

The United States is now considering fundamental reform of its primary long-term disability cash transfer program, Social Security Disability Insurance (DI). As was the case in Australia, the Netherlands, Sweden, and the United Kingdom before their reforms, disability reciprocity in the U.S. is rising at an unsustainable pace. The DI rolls have risen from 1.2 million in 1967 to 8.8 million in 2012, and since 2009, the DI program has been paying out more in annual benefits than it receives in taxes and interest from its trust fund. Based on current growth, the DI program is projected to be insolvent by 2016 (Social Security Administration 2013a).

Here, we describe the factors driving unsustainable growth in the U.S. DI program, show their similarity to the factors that led to unsustainable growth in these other four OECD countries, and discuss the reforms these countries implemented to regain control over their cash transfer disability programs. Their reform experiences provide important lessons for U.S.

policymakers tasked with providing fiscally sustainable support for people with disabilities who are unable to work.

## **2. Disability Program Growth across Countries**

The number of workers receiving social insurance for disability has increased substantially in most OECD nations over the past forty years. Population growth explains part of this increase, but disability caseloads as a share of the working age population age—known as the disability recipiency rate—also have risen rapidly. This can be seen in Figure 1, which shows the total number of persons receiving long-term categorical disability income benefits as a share of the working-age population in the United States and four other OECD countries. This is the number most critical to policymakers since it measures the magnitude of the fiscal burden that these disability programs place on country finances.<sup>1</sup> We show values beginning in 1970 through the last year of data publically available in each country. A more detailed description of the data for each country is provided in Appendix A.

The figure plots the level of disability recipiency (disability beneficiaries as a share of the working-age population) over time for each country. In 1970, disability recipiency rates in our three European nations were considerably higher: 3.5 percent in Sweden, 2.8 percent in Great Britain (1971) and 2.4 percent in the Netherlands, than they were in Australia (1.6 percent) and the U.S. (1.2 percent). Since then disability recipiency rates have risen substantially in each country, although as the figure highlights, they have done so along significantly different trajectories.

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<sup>1</sup>The fiscal burden of disability programs comes from the fact that beneficiaries receive income support and they generally do not contribute to the tax base since they are largely out of the labor force.

To see these fluctuations more clearly, Table 1 provides average annual growth rates in disability reciprocity by decade and over the entire sample. As the table shows, disability reciprocity rates rose in all countries during the 1970s, with especially rapid growth in the Netherlands. In the 1980s, most countries managed to gain some control over their disability programs and disability reciprocity rates grew much more modestly everywhere. By the 1990s, growth in the Netherlands had more or less ended and disability reciprocity rates fell on balance over the decade. In the other countries, rates increased, with Great Britain posting the fastest pace of growth. During the 2000s, disability reciprocity rates continued to come down in the Netherlands and either plateaued (Australia) or fell (Sweden and Great Britain) in all countries but the U.S.

The final average shows that smoothing through the fluctuations in growth that have occurred over the decades, the U.S. has experienced the highest average growth rate over the sample period. This is because periods of unsustainable growth in other countries were followed by program reforms that tempered or reversed the path of disability reciprocity and allowed countries to regain control of program growth. In contrast, with the exception of the 1980s, growth in U.S. disability reciprocity has been nearly continuous over the sample period.

Of course one possible explanation for the differences in growth across countries is that health and population characteristics have evolved differently for each nation over time. If this is the case, then U.S. policymakers might find little guidance in the reforms of other nations. For example, if health or population characteristics are driving growth in the U.S. disability rolls, rather than disability policy and its implementation, then the fundamental restructuring of disability policy undertaken in other nations may not be warranted or successful in the U.S.

To understand the extent to which these factors might explain the growth in disability reciprocity shown in Figure 1 and Table 1, we compare trends in self-reported health across countries and more formally evaluate the role that demographics and other changes in the population eligible for disability benefits might have trends in disability reciprocity. We begin by examining trends in self-reported health over time and across countries. Figure 2 reports data from the OECD on self-reported health status for each of our countries. The plot shows the percentage of the population in each country reporting that they are in good health on a survey that asks respondents to state whether they are in good, fair, or poor health.

Although there are persistent differences across countries in the percent of individuals reporting good health, there is little variation over time within countries.<sup>2</sup> Over the past ten years the overall prevalence of good health among working-age populations has remained relatively steady in each country. The relative stability of the health measure in each of our sample countries suggests that changes in the prevalence of disabilities in the working-age population is unlikely to be responsible for the within and across country fluctuations in disability reciprocity rates found in Figure 1 and Table 1.

A second reason disability reciprocity rates may have varied across countries over time is that the eligible populations in those nations may have evolved differently. To investigate this possible explanation, we compute counterfactual disability reciprocity rates for each country using the methodology in Daly, Lucking and Schwabish (2013). This measure represents the growth in disability reciprocity rates, absent the influences of the aging of the workforce and any increase in eligibility age for retirement benefits. In addition, in the U. S., we also consider the

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<sup>2</sup>Some of the difference across countries relates to the age structure of the population. Older populations report lower rates of good health than younger populations. Remaining differences likely owe to reporting differences that are idiosyncratic to each country (see Van Soest, Andreyeva, Kapteyn and Smith. 2011).

rise in the employment rate of women and associated increase in DI coverage (to be eligible for DI you must have worked at least 5 of the last 10 years) which have changed over this period. The details of these calculations and the specific things controlled for in each country are provided in Appendix B.

Figure 3 plots the actual (the same rates shown in Figure 1) and adjusted disability reciprocity rates, that net out these demographic and eligibility factors, for each country over time. The gray bars in the figures reflect recession periods in each country. The figure shows that changes in the composition of the eligible population have been more important in some countries than in others. For example, changes in the eligible population had a notable effect in the United States and Australia whose post-World War II baby boom generations were large. As these populations aged, they put notable pressure on disability reciprocity rates in the 1990s and 2000s. This was not the case in the three European countries, where adjustments for demographic changes make almost no difference to the path of disability reciprocity.

Overall, accounting for these changes does little to alter the picture developed in Figure 1 and Table 1. This is confirmed in Appendix Figure B1 and Table B1 which repeat the analysis in Figure 1 and Table 1 using the adjusted disability reciprocity rates. Figure B1 shows that controlling for these population factors, it remains the case that over the entire sample period a higher share of working-age people are on categorical disability cash transfers in the Netherlands, Sweden and Great Britain than in the U.S. and Australia. Table B1 shows that over the past 40 years, the U.S. has had the highest average growth rate. Thus, even when we adjust

for differences in population characteristics across countries, the U.S. remains an outlier in experiencing ongoing growth in disability reciprocity.<sup>3</sup>

Since to date no major policy reforms have been implemented to address this growth, this gap between the U.S. and these other countries is likely to grow larger in coming years.

The finding that neither health nor population characteristics can explain the cross-country differences in disability reciprocity, either levels or trends, underscores the potential role for policy.<sup>4</sup> In what follows we describe how changes in disability policy and its implementation in each country affected the fluctuations in growth in disability reciprocity just discussed.

### **3. Disability Policy and Program Growth**

In industrialized nations, social protection from income loss associated with disability is just one part of a broader social safety net designed to protect working age individuals from the loss of labor market income. Since labor market work is the primary source of income for most families, OECD nations generally have built complex social protection schemes designed to support individuals who are unable to earn wages in the labor market. Most countries provide this protection in tiers associated with the social expectations for employment of different groups.

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<sup>3</sup>The fact that adjusting for demographics and the entry of women into the labor force in the U.S. explains only a fraction of the overall growth in disability reciprocity is at odds with the characterization of the Chief Actuary of the Social Security Administration (see Goss 2013) but is consistent with research by Duggan and Imberman 2009 and Daly, Lucking and Schwabish 2013.

<sup>4</sup>We are not the first to make this point. The OECD (2010) summary of disability program growth across OECD nations concludes that policy rather than population characteristics are behind the rapid expansion of disability benefit receipt in most nations. The point is also emphasized by Autor and Duggan 2010 and Burkhauser and Daly 2011 and 2012.

In general, the first tier provides universal, long-term, needs-based cash transfers that guarantee a social minimum income to all families. The second tier provides cash support to those available for employment and expected to work, but who are temporarily unemployed. These benefits are usually conditional on past work, limited in duration, and may be needs-based. The third tier targets benefits to those not expected to work—the aged, disabled, etc.—and can either be needs-based or based on past earnings. Since recipients of these benefits are not expected to return to employment, benefits are typically higher and not time limited.

When these tiers provide substantially different amounts of income and their categories are mutable, it is critical that the long-term or higher benefit programs have verifiable eligibility criteria that allow program gatekeepers to consistently determine who should come onto the program. For retirement programs this is straightforward; age is an arbitrary but easily verifiable eligibility marker. Eligibility determinations by program gatekeepers will not vary greatly over the business cycle and estimations of program growth will be relatively straightforward.

Disability is more difficult. Unlike retirement, there is no precise definition or easily verifiable marker for determining categorical eligibility for long-term disability benefits. Moreover, disability is not a static concept and social conceptualizations of disability evolve over time. For example, over the last 20 years the medical model of disability underlying categorical disability programs in most OECD countries has been rejected and replaced by a conceptualization that recognizes that the social environment is as important as health in determining an individual's ability to participate in society (WHO, 2001).<sup>5</sup> Under this model, “work disability” is not an unchangeable state, but rather a mutable category that depends on a

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<sup>5</sup>There is no clear consensus on the most appropriate conceptualization of disability, although the most widely used is the World Health Organization's (WHO) International Classification of Disability, Health, and Functioning (WHO, 2001).



number of factors, including an individual's health impairment, the level of accommodation offered in the workplace, and the relative economic payoffs associated with working or exiting the labor force to receive disability benefits.

The fluid nature of the disability category has meant that changes to disability policy parameters such as the level of benefits and the scope of conditions that qualify have had much larger impacts on caseload growth and recipiency rates than expected when the changes were made. Part of this amplification owes to the interplay between the disability program and the macro economy. This point is emphasized by the OECD in its review of disability policy in OECD nations in 2010. The report concludes that economic conditions play some role in rising disability benefit applications and awards over time. Since very few disability beneficiaries ever return to the labor market, the growth in the rolls that occurs during and after recessions leads to a long term increase in disability recipiency—essentially recipiency rates remain elevated until these recession induced cohorts of beneficiaries age out of the system or die.

Additionally, in many OECD nations structural changes in the economy including the declining job prospects for low-wage workers have unintentionally increased the value of disability benefits over time, especially relative to unemployment insurance or other social assistance. This increase in value has contributed to the number of people seeking disability benefits as a means of support (OECD 2010). And the larger the gap between disability benefits and support from other programs the greater the incentive to shift. In a number of OECD nations, the relative value of disability benefits has been pushed up over time by cuts to other programs or by imposing stricter eligibility criteria or more stringent oversight in other programs.

Below we discuss how disability program designs and changes in disability policy parameters in Australia, the Netherlands, Sweden, the United Kingdom and the U.S. have affected disability recipiency rates in each country. When relevant we also discuss how these policy structures have interacted with macroeconomic conditions and the broader social safety net to amplify growth in the disability rolls.

### *3.1 The U.S. Experience*

The United States has no first-tier, universal needs-based cash transfer program that provides a guaranteed social minimum income floor to all its citizens. The Supplemental Security Income (SSI) program, which is limited to the aged, disabled adults and parents of disabled children, is its only long-term needs-based cash transfer program. SSI is similar in design to Australia's Disability Support Pension (DSP) and the Dutch categorical disability-based welfare program (Wajong) but its income guarantee level is substantially lower than either. The only other major categorical needs-based cash transfer program in the United States is Temporary Assistance for Needy Families (TANF), which is targeted at single mothers and provides an even lower guaranteed income level and the guarantee is limited to 5 years.

The second tier in the U.S. includes unemployment insurance benefits, which replace a fraction of wages for covered workers for short periods of time. In normal economic times, unemployment benefits can last up to 26 weeks. During recessions, this maximum is often extended and it rose to 99 weeks in the aftermath of the Global Financial Crisis. Unemployment insurance benefits are generally higher than SSI or TANF benefits.

The social security old-age retirement (OI) and disability (DI) programs make up the third tier of benefits in the United States; they provide social insurance to workers who have paid social security taxes over their working life. To be eligible for benefits, workers must have

accumulated sufficient quarters of coverage, as defined in the Social Security Administration’s pension rules. These requirements are sufficiently strict to limit OI and DI benefits to those with substantial attachments to the labor market. (For a summary of the benefit requirements and rules, see Social Security Administration 2013b.) Benefit levels from these programs are based on past earnings and can be substantially higher than the social minimum level of benefits guaranteed by the SSI aged and disability programs.

Although the SSI aged and disabled adults programs and social security retirement and disability benefits programs target different economic populations, they share identical categorical eligibility criteria. Also, individuals with sufficiently low earnings records may jointly qualify for OI and SSI aged benefits and for DI and SSI disabled adult benefits. That said, in the U.S., the programs are generally treated separately by policymakers.<sup>6</sup>

Eligibility for DI or SSI adult disability benefits requires applicants to meet an identical disability standard applied by a common set of administrative evaluators and adjudicators. Those criteria are in principle quite strict. Eligibility requires that a worker be “unable to perform any substantial gainful activity on any job in the economy for at least one year”. The intent is that DI and SSI are last-resort programs for those with permanent and total impairments.

While the words describing eligibility criteria have not changed over time, DI implementation has changed, and in a direction that has increased the number of working-aged adults receiving disability benefits. Indeed, many of the disability recipiency rate fluctuations shown in Figure 1 and Table 1 line up with changes in Social Security Administration (SSA) policy that made it easier or harder to gain entry to the DI rolls. For example, rapid disability

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<sup>6</sup>Although policymakers treat SSI and DI as separate programs, Burkhauser and Daly (2011 and 2013) argue that for the purpose of evaluating the role of disability benefits in the U.S. they should be combined. When the programs are combined the level of disability recipiency in the U.S. is higher, but the patterns over time are roughly the same.

reciency rate growth in the 1970s aligns with Congressional actions that substantially increased the replacement rate embedded in the Social Security benefit formula.<sup>7</sup> In the late 1970s and early 1980s relative caseloads fell, first because program gatekeepers were urged to more strictly interpret existing rules and then because Congress in 1980 required SSA to reevaluate all current recipients to see if they still met the medical standards. This rule change, which was rigorously enforced by SSA at the start of the new Reagan administration, resulted in a drop in the DI rolls despite a major recession—the substantial drop in normalized adjusted disability reciency rates in the U.S. between 1978 and 1983 are in stark contrast to the sizable growth in these values before 1978 and after 1990.

By 1983 the widespread reevaluation of those already on DI was halted as the courts and then Congress restricted the SSA's power to reevaluate beneficiaries. Furthermore, in 1984, responding to a backlash against restrictive cuts imposed in the Social Security Disability Amendments of 1980, policymakers expanded the ways in which a person could medically qualify for the DI program. The 1984 legislation moved away from a strict medical listing determination of eligibility to one that also considered an applicant's overall medical condition and ability to work. In addition, the legislation allowed for symptoms of mental illness and pain to be counted when assessing DI eligibility, regardless of whether the person had a verifiable medical diagnosis. (See Berkowitz and Burkhauser, 1996)

The expansion of eligibility to more difficult to measure impairments that do not precisely meet the medical listings means that SSA has increasingly been tasked with making more subjective decisions about the impact that presenting impairments might have on an

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<sup>7</sup>Congress changed Old-Age, Survivors, and Disability Insurance (OASDI) benefit calculation so the net replacement rate for a disabled worker with median earnings increased from 35 to 49 percent over the 1970s.

applicant's work ability.<sup>8</sup> For applicants who do not meet or exceed the medical listings, program administrators consider a set of vocational criteria. While these criteria have not changed over the history of the DI program, their use by program gatekeepers to determine benefit eligibility has risen dramatically since 1991. Currently, they are used to justify the majority of new awards, especially among those with the more difficult to determine conditions of mental illness and musculoskeletal conditions—the primary condition of more than 50 percent of all newly enrolled beneficiaries. (See Burkhauser and Daly, 2011)

The effect of this growing share of marginal applicants is that there is substantial variation in the flow of applicants onto the rolls. This variation comes both from fluctuations in the inflow of applicants and from variations in decision making among DI gatekeepers. For example, recent work by Maestas, Mullen, and Strand (2013) using SSA administrative records find that at the initial Disability Determination Stage (DDS) of decision making 23 percent of new applicants in 2005 were marginal cases whose admittance into the program was determined by the luck of drawing an easier rather than a stricter DDS gatekeeper.

Importantly, when they compare the subsequent work histories of those who entered the program in this way with a matched set of applicants who drew a stricter DDS gatekeeper, they find the latter group's employment was on average 20 percentage points higher. This difference is even greater for those with less severe medical conditions. This research suggests that increasingly applicants admitted to the DI rolls on these looser criteria have greater work

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<sup>8</sup>Autor and Duggan (2006) argue that under these new eligibility standards, SSDI is a form of employability insurance in which individuals who have limited employment options can find some way to qualify. They offer the example of individuals removed from the rolls in 1996 when drug and alcohol addiction were removed from qualifying impairments. Autor and Duggan (2010) cite research by the Lewin Group (1995, 1998) showing that two thirds of those removed from the rolls re-qualified based on some other impairment.

capacity than assumed for those receiving DI benefits. This capacity for work among new beneficiaries is also highlighted in Von Wachter, Song, and Manchester (2011).

The differences in allowances are important especially when one considers how application rates fluctuate with economic conditions. With the exception of the double-dip recession in the 1980s when the major policy change discussed above offset this relationship, application rates are highly correlated with the business cycle—rising during recessions and falling during periods of economic growth (see Rupp and Stapleton, 1995; Stapleton, D., Coleman, K., Dietrich, K., and Livermore, G. 1998; Black, Daniel, and Sanders, 2002; Autor and Duggan, 2003). As can be seen in Figure 3, for the U.S., the increased applications generally result in an increase in disability reciprocity which does not subside as economic conditions improve. Finally, in addition to the cyclical sensitivity of disability applications and awards, there is evidence that there has been a secular rise in the number of workers who apply over time related to the unintentional rising replacement rates of DI for low wage workers (Autor and Duggan, 2003). Again, since few beneficiaries ever leave the rolls to return to work, the surge in disability recipients associated with business cycle fluctuations or economic restructuring has generally translated into a long-term increase in disability reciprocity in the working age population.

### *3.2 The Netherlands<sup>9</sup>*

As in the U.S., the disability system in the Netherlands contains both a social insurance program that protects workers against lost labor earnings and a program that provides a social minimum for disabled adults with little or no work history. A separate social minimum scheme for the disabled self-employed ended in 2004. The Dutch social insurance program (WAO/WIA)

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<sup>9</sup>A longer version of this summary of the Dutch system can be found in Burkhauser and Daly 2011.

provides cash transfers to working-age men and women based on lost labor earnings. The Netherlands does not have a separate program similar to Workers' Compensation. Rather, it has a longer-term disability transfer program that, together with the sickness benefits all private firms must offer their workers, provides a comprehensive system of both partial and total disability benefits to workers regardless of how or where their disability occurred. The Dutch also have a categorical disability-based welfare program (Wajong) that, unlike the general welfare scheme, is not means tested. This program is similar to the SSI-disabled adults program in that it targets men and women whose disabilities occurred prior to their entrance into the labor force and are severe enough that they have not engaged in full-time employment as adults.

One reason for the rapid growth in the Dutch disability program over the 1970s was the relatively generous benefits that the system provided. The first level of protection for Dutch workers was a universal sickness benefit—essentially a universal short-term disability system. In the 1970s, government payments from this program replaced up to 80 percent of net-of-tax wage earnings for up to one year. However, most employees (90 percent) and all civil servants had the rest of their net-of-tax earnings replaced by collective-bargaining agreements with their employers. These replacement rates were far in excess of comparable programs in the U.S. Sickness benefits were payable for up to twelve months. After one year, employees still receiving benefits were eligible for disability benefit screening. Workers with chronic conditions that caused a reduction in their capacity to perform work commensurate with their job training and work history were eligible for disability benefits. Those judged fully disabled were eligible for benefits equal to 80 percent of their previous before-tax earnings. Those judged partially disabled (those with some residual earnings capacity) were eligible for partial benefits; the minimum degree of impairment for eligibility was 15 percent.

In a significant loosening of access to full disability benefits in the mid-1970s, Dutch courts determined that unless disability evaluators could prove otherwise, they were required to attribute a partially disabled worker's lack of employment to discriminatory behavior. The result was that it became "administrative practice" to treat unemployed, partially disabled persons as if they were fully disabled. That interpretation of the law made assessing lost earnings capacity unnecessary beyond the minimum 15 percent, since that became sufficient to entitle a person to full benefits. This essentially made the Dutch partial disability system a very generous full disability program. These increases in eligibility together with the generosity of the system in large part explain the 11.45 percent per year increase in adjusted Dutch disability reciprocity rates seen in Table 1 over the 1970s.

The serious recession of the early 1980s and the growing costs of the disability system put pressure on the Dutch government to reduce the growth of disability transfers. Reforms initiated between 1982 and 1987 were the first of three major efforts over the next two decades to regain control of the Dutch disability transfer system. By 1985, a series of cuts in the replacement rate effectively lowered it from 80 percent of before-tax income to 70 percent of after-tax income for both new entrants and current beneficiaries. But that did not halt system growth completely and in 1987 the labor market consideration rule was abolished. Despite the legal ban on including labor-market considerations in their assessments, disability adjudicators still tended either to grant or deny full benefits. Denial rates remained quite low, suggesting that the legal change did not stop the de facto use of labor-market considerations in the adjudication process. Nonetheless these changes are responsible for the dramatic reduction in disability reciprocity rate growth in the 1980s that brought it more in line with disability growth in Sweden and Great Britain.



But it was not until the 1994 reforms that disability reciprocity rates began to drop. These reforms included further tightening of eligibility criteria. Additionally, for the first time, firms were made responsible for an employee's first six weeks of sick pay. The introduction of this type of privatization of the disability system was unprecedented in the Netherlands, and it was the first serious attempt by Dutch disability policy to encourage firms to provide more accommodation, rehabilitation, and options to return to work for their employees as an alternative to simply pushing them onto the disability transfer rolls. The mandate for firms to bear the full responsibility for sick pay was extended from six weeks to one year in 1996. Despite these reforms, the decline in the Dutch disability reciprocity rate stopped in 1997 and began to slowly climb.

In 2002, the Dutch disability system began to phase in the third and most significant set of reforms. These reforms culminated in the establishment of a new disability insurance scheme in 2004—WIA—which completely replaced the WAO scheme that had been in place since 1967. These systemic reforms changed disability policy in the Netherlands. At their heart were changes that increased the incentives of both employees and their employers to invest more time and effort in accommodation and rehabilitation following the onset of a disability.

Foremost among the reforms was the extension from one year to two years of the mandate that firms (including small employers) bear full responsibility for employees' sick pay. A reduction in the maximum benefit from 100 to 85 percent of gross wages eased slightly the financial burden the additional year of sickness pay put on firms. These changes effectively meant that during the first two years following a health shock, workers were the responsibility of the firm and not eligible for long-term government provided disability benefits. During these two years, employers are required to allow workers receiving sickness benefits to continue with

the firm. Employers can only dismiss employees who refuse to cooperate in a reasonable work-resumption plan.

Under the reforms, firms also have a set of prescribed rehabilitation and accommodation activities that they (via a private occupational health agency) must provide to try either to retain disabled employees or to find alternative employment for them during those two years. Every firm is mandated to contract a prescribed set of occupational health services, such as medical experts, to check the legitimacy of absences. When the two years are complete and workers are allowed to apply for long-term disability benefits, they are required to provide documentation regarding return-to-work efforts during the two-year period. In 2007, nearly 14 percent of disability insurance claims were returned to employers and the employer continued to be responsible for employing the worker until the claim was processed or the worker had returned to his old or a new job.

Reforms at the front end of the process were accompanied by significant reforms in the longer-term benefit program. All employers now pay for the full and permanent disability program through a uniform pay-as-you-go premium rate. Employers also pay to fund the publicly run partial disability program, but they can opt out of it by enrolling their workers with a private insurer instead. Either way, employers now pay experience-rated premiums that cover the first ten years of partial disability benefit receipt. After ten years, benefits are covered by the uniform pay-as-you-go rates that also cover the fully and permanently disabled and the stock of current beneficiaries under the old system. Based on these reforms, the Dutch disability system, long seen as out of control, is now considered by Prinz and Thompson (2009) in their comparison of OECD disability systems as one that has learned from its mistakes and provides an example for other OECD countries to follow.

While it is still too early to determine the full effect of these policy changes on the Dutch disability beneficiary population, Van Sonsbeek and Gradus (2011) provides the first microsimulation of the consequences of the post-2002 round of policy changes discussed above. He estimates that the combined impact of the introduction of experience rating together with the introduction of the statutory Gatekeeper Protocol and stricter examinations will reduce the projected long-term number of disability beneficiaries by 600,000 and that the introduction of the new WIA scheme will further reduce that projected number by 250,000 by 2040, as compared to a “no-change scenario.”

### *3.3 Sweden*

Like most European nations Sweden has a long-standing first-tier, universal needs-based cash transfer program that provides a guaranteed social minimum income floor to all its citizens. This first-tier protection is funded out of general revenues and is available to everyone who lives or works in Sweden. Although benefits provide minimum income to anyone in need, like the other parts of the social insurance system applicants apply for benefits based on income and particular circumstances, such as disability, parental needs, or old age. Benefits are set at the national level and indexed to keep pace with the price level.

Similar to the other countries in our study, Sweden also provides second and third tier benefits. The second tier in Sweden includes unemployment insurance benefits, which include both a mandatory and voluntary component. The mandatory component is paid for by all employers and replaces a minimum fraction of wages for covered workers. The number of weeks covered by unemployment insurance has fluctuated over time but is generally longer than in the U.S. Most individuals also are covered by voluntary unemployment insurance which is negotiated between firms and trade unions. There are also private insurance options for

unemployment insurance which may be purchased individually or in many cases through an employer.

Third tier benefits including old-age pensions and sickness and disability benefits are again provided through a combination of programs. For those with an earnings history the bulk of the protection is provided based on a social insurance program that, as in the U.S., is financed by statutory employer and employee contributions. Many employers also pay into occupational-based insurance and pension programs on behalf of their employees. Participation in these schemes is driven by competitive forces or collective bargaining agreements with unions. A majority of employers in Sweden participate in these programs.

As in the Dutch case, a key reason for the rapid growth in the Swedish disability program over the 1970s (see Table 1) was the relatively generous benefits that the system provided. The first level of protection for Swedish workers was a universal sickness benefit. All individuals in Sweden were eligible for sickness benefits if they had an abnormal physical or mental condition that reduced their normal work capacity by at least 25 percent. In the 1970s, sickness benefits replaced about 90 percent of expected earnings. Workers claiming sickness absence for more than eight days were required to get a certificate from a doctor. This was primarily facilitated by the individual's doctor with no centralized screening or standards.

After one year, employees still receiving benefits could apply for long-term disability insurance. Workers with functional limitations that caused a reduction in their capacity to perform work commensurate with their job training and work history were eligible for disability benefits. Benefits were awarded for partial (50 percent) and full disability. For those under age 60, benefits included rehabilitation and vocational training. For those 60 and older, beneficiaries

were provided income support. Like sickness benefits, disability benefits were very generous replacing the vast majority of expected lost earnings.

Over the course of the 1970s, standards for obtaining long-term disability benefits were also loosened to make it easier for the long-term unemployed to move onto the program. For workers of all ages, unemployment spells of more than one year were added to the list of criteria considered in the disability screening process. For workers over age 60, long-term unemployed became a sufficient condition for moving onto disability benefits, even without a certifiable functional limitation. Similar to the Dutch case, these changes meant that the disability benefit program was increasingly being used as a very generous long-term unemployment insurance program.<sup>10</sup>

Generous benefits and easier access resulted in steady growth in disability reciprocity over the 1970s and 1980s. These features also left the program vulnerable to rapid growth related to the serious recession in the early 1990s. As shown in Figure 1, following the foreign exchange crisis in 1990 and ensuing deep recession, disability reciprocity surged. Policymakers responded by lowering the replacement rates on sickness benefits, making employers pay for the first 14 days of sickness absence, and removing the pure labor market criteria for disability benefits for older workers. With these changes to policy and an improving economy, the disability reciprocity rate stabilized for most of the rest of the decade. That said, disability reciprocity rates remained quite high and at a level that policymakers believed unsustainable. As such, additional policy reforms were made throughout the 1990s designed to increase the

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<sup>10</sup>Econometric studies of the Swedish system support this view. See for example Rebick, 1994; Larrson 2002.

employer cost of worker sickness absence and increase the threshold for workers applying for sickness and/or disability benefits.<sup>11</sup>

Facing increasing fiscal pressures and a renewal of growth in disability reciprocity (Figure 1), in 2000 the Swedish government proposed much more sweeping reforms to the sickness and disability system. Despite considerable opposition from various advocacy groups, significant reforms were put into place over the remainder of the decade. The driving principle behind the reforms was that work support, rather than cash assistance in lieu of work, was the primary goal of disability policy.

This general principle translated into a number of important specific reforms. In 2003, the government merged the sickness benefits and disability systems and began a series of changes to standardize and enforce the administration of these now joint systems. Most notable among them was the centralization of screening processes. Up until this point, certification for sickness benefits had been variable as had disability benefit allowance rates. Although rehabilitation and vocational training were goals, many doctors and regional disability gatekeepers focused on providing income support rather than work retraining. By centralizing the process and developing standardized protocols for granting cash benefits, policymakers were better able to regulate the gatekeepers and enforce the strategy of promoting participation in work before offering cash benefits. Although it is too early to judge the effectiveness, the hope was that this standardization would temper the link between regional economic conditions and disability reciprocity that had historically been present.

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<sup>11</sup>The Swedish government made numerous changes to sickness benefit replacement rates, the number of days the employer paid for employee sickness absence, and the number of days the worker had to wait before receiving sickness benefits (Andren 2003). In addition, policymakers removed most of the special allowances for disability insurance afforded to unemployed and older workers Jonsson, Palme, Svensson 2011.

In addition to standardizing the screening process, the merger of the sickness and disability programs forced disability gatekeepers to become actively involved early in the process. By getting vocational and rehabilitation experts involved early, at the sickness benefit stage, policymakers hoped to stem the flow of new applicants to the long-term disability program. To aid in this process, sickness benefits were capped at one year, and beneficiaries were evaluated for work ability at 180 days of absence. Only those who could show that they had no capacity to perform any job were allowed to remain on the program for the full year. In addition, employers were required to work with disability administrators to create a rehabilitation plan. And gatekeepers were given the power to demand that employers provide certification about the types of accommodations they made for the worker. These reforms resulted in a decline in the use of sickness benefits and a subsequent decline in the flow of new beneficiaries onto the long-term disability system.

In 2008 the Swedish government undertook an additional series of reforms to its sickness and long-term disability programs (these reforms are detailed in Hartman 2011 and OECD 2009). These reforms were meant to further curb growth in the rolls and more actively return newly impaired workers to back to the labor market. The 2008 reforms went beyond engaging gatekeepers and employers and focuses on individuals with disabilities. New rules aimed at strengthening the incentives for individuals with disabilities to work and improving their opportunities to do so. The principal reform was the establishment of a new timeline for the provision of rehabilitation services under the sickness absence program with checkpoints closely aligned with assessment of work capacity and a reduction of the cash value of sickness benefits for those who did not return to work. In addition to adding more checkpoints, the reforms also front-loaded the evaluations so that they were being done at 3-, 6-, and 12-month increments.

The earlier checkpoints provided rehabilitation, counseling and assessment much closer to the onset of an impairment, when return to work was more likely.

The reforms significantly increased the return to work of new sickness program entrants and reduced their time on the program. In contrast, few of those already on the sickness program when these new reforms were initiated returned to work, and when their sickness benefits ended they simply moved onto other social assistance programs. These findings provide empirical evidence that early intervention matters. Waiting even one year following the onset of impairment significantly reduces the chance that rehabilitation will result in a return to work.

The reforms put in place late in the 2000s effectively kept growth in disability reciprocity in check during the Global Financial Crisis and ensuing global recession. That said, the Swedish government remains dissatisfied with the high rate of disability reciprocity in the country and continues to put forward reforms. The most recent reform in January 2013 allows a large group of existing beneficiaries to return to work without fear of ever losing their right to return to benefits. So far the program has had little impact on the work effort of existing beneficiaries eligible for the program.

### *3.4 Great Britain*

Great Britain has substantially reconfigured the way it provides social insurance and social welfare cash transfers over the last four decades. In 1970 it provided first tier universal needs-based cash transfers via its Supplemental Benefit program. It provided somewhat higher second tier cash transfers via its Unemployment Benefit program for those expected to work. Great Britain's major social insurance program for working age people with disabilities between 1970 and 1995 was its Invalidity Benefit (IVB). All those of working age who were deemed unable to work on grounds of ill health or disability (determined largely by the claimant's family



doctor) and who had a record of sufficient social insurance contributions (paid during employment) were eligible, initially for Sickness Benefit (the first 28 weeks) and subsequently for IVB.

Both Sickness Benefit and IVB-proper recipients were counted in the IVB register. Individuals with an insufficient record of social insurance payments were eligible for “credits only” payments (the IVB system would pay their social insurance contributions) generally alongside their means-tested Supplemental Insurance social assistance payments. This group was also counted in the IVB register.

IVB paid a slightly higher third tier flat rate to beneficiaries, which was more generous than unemployment benefits for longer-duration claimants. Some (generally older recipients with a sufficiently long work history) also received a small earnings-related premium known as the Additional Pension. Even for those receiving this Additional Pension their replacement rates were still considerably less generous than those in the Swedish and Dutch disability systems. This regime was in place throughout the period of slow but steady growth in disability reciprocity rolls over the 1970s and early 1980s (see Figure 1 and Table 1).

The 1980s saw a number of major changes that affected the IVB reciprocity roll in opposite directions. One change in particular that held back growth during the early-mid-1980s was the introduction of Statutory Sick Pay in 1983, which—similarly to the Netherlands—made employers responsible for paying sickness benefits, in this case for the first 8 weeks of a claim. This was extended to 28 weeks in 1986. These beneficiaries were not counted by the IVB register, so even if this reform did not impact behavior, it did remove short-duration claims from the roll (see Anyadike-Danes and McVicar, 2008).

Labor market factors, including recessions in the early 1980s and early 1990s and rapid structural change away from mining and heavy industry throughout the 1980s and into the 1990s, acted in the opposite direction. Indeed the rapid growth in the disability benefit roll during the latter half of the 1980s and the first half the 1990s is widely interpreted as hidden unemployment. These were applicants with health-related impairments who had lost their jobs and resided in local labor markets characterized by low labor demand, who either moved directly onto IVB or switched to IVB following an unsuccessful period of job search on (less generous) unemployment benefits (see Beatty et al., 2000). Further, echoing the trend in the US, a growing proportion of IVB claims over this period were related to hard-to-measure mental illness or muscular-skeletal conditions, despite there having been no explicit change in the medical screening regime for IVB (McVicar, 2008).

Both financial and “hassle-avoidance” incentives to shift to IVB from unemployment benefits were intensified with the introduction of Restart in 1987-1988, which imposed compulsory work-focused interviews for long-term unemployment benefits claimants, reduced the generosity of unemployment benefit payments, and introduced a requirement to show evidence of job search activity at fortnightly signing interviews. Huddleston (2000) suggests “there is clear evidence of a ‘structural break’ around 1987” in moves from unemployment to IVB (for which no such reforms had been introduced), coinciding with the in-step increase in disability recipiency rates.

Another cause of the increase in the IVB rolls occurred in 1988 when the Income Support program replaced Supplemental Benefits as the primary means-tested social assistance payment for those out of work on grounds of sickness or disability but with insufficient work history to qualify for IVB directly, as well as for other groups such as single parents or otherwise

uncovered unemployed. Although there were various elements to this change, the key change was that Income Support claimants with a disability could receive a Disability Premium benefit, which significantly increased the generosity of Income Support benefits relative to claimants without a disability.

Because yearly increases in IVB fixed rate, unemployment, and social assistance payment benefits are tied to inflation they have generally declined relative to real wages, hence lowering their real replacement rate even at the bottom of the wage distribution. But for those with IVB beneficiaries who were also eligible the Additional Pension this was less the case since their value was tied to real wages. This was especially the case in the recessionary years of the early 1990s when rises in Additional Pension benefits temporarily made IVB more than twice as generous as unemployment benefits for many older recipients (Huddleston, 2000).

The period of rapid growth in the disability recipiency rates came to an abrupt end in 1995, with a set of major reforms that ended the IVB program and replaced it with the Incapacity Benefit (IB) program for all new beneficiaries. Like other European countries, this reform attempted to slow inflows into the disability benefit system—which had been particularly high during the years of rapid growth leading up to 1995 (Anyadike-Danes and McVicar, 2008)—rather than the existing stock of beneficiaries. Means-tested beneficiaries of the Income Support program with disabilities continued to receive a Disability Premium and be counted as part of the IB program. But IB was both less generous than IVB (the earnings-related Additional Pension was scrapped for new claimants) and most importantly the medical eligibility system was tightened. The Personal Capability Assessment was now made by government doctors, working for the relevant agency, rather than family doctors. This type of standardization is similar to what Sweden undertook in 2006. In addition, IB's status as a social insurance payment was

blurred in 1999 with the introduction of limited means-testing for new claimants with significant (private) pension income, even those who had made sufficient social insurance payments to be fully covered for IB benefits. There were also further reforms tightening the conditionality for receipt of unemployment benefits and reducing their generosity over this period (e.g. the replacement of the old regime of unemployment benefits with Jobseekers' Allowance in 1996), which might in part explain why disability rolls continued to rise somewhat through the end of the 1990s.

Reciprocity rates only began to fall in the early 2000s coincident with a new set of work-first reforms aimed at slowing the inflow of disability beneficiaries embodied in the Pathways to Work program. This program was piloted in 2003 and rolled-out nationally beginning in 2005. It made movement onto the IB program (including receipt of social assistance on disability grounds) conditional on attendance at work-focused interviews, with the aim of steering at least some recipients into employment support services and ultimately back into the labor market.

Disability reciprocity rates have continued to decline since then, even in the midst of the deep and long-lasting slump in labor demand associated with the Global Financial Crises. In part this is likely to reflect the inflow-constraining effects of the earlier reforms to disability benefits described above. But there have also been further reforms to disability benefits over the last five years, which are likely to have further restrained growth in the disability roll despite the difficult macroeconomic conditions.

In 2008 the new Employment Support Allowance (ESA) program replaced IB as well as IS on grounds of disability for new applicants. The new social insurance program included a new tougher Work Capability Assessments, with fewer exemptions, in place of the existing system of Personal Capability Assessments (see Sissons, 2009). The requirement to attend

work-focused interviews introduced under Pathways to Work has been extended into a requirement to engage in work-related activity for all but the most severely disabled, linked explicitly to payments, with £24 per week of the existing benefit payment made conditional upon compliance. There is also no longer a higher rate of payment for longer-duration claims. Sissons (2009) interprets the lack of growth in the disability roll over the period 2008-2009 as evidence that they have ceased to play a role as a major destination for the hidden unemployed.

In a break with the tradition of reforms largely targeted on inflows to disability rolls, and echoing similar efforts at activation of existing recipients in Sweden, between 2009 and 2013 existing IB recipients have also been reassessed under the new ESA eligibility criteria. Many have been judged ineligible as a result of medical re-screening under the stricter Work Capability Assessment, although some have since successfully appealed these decisions and others, as was the case in Sweden, may have moved onto unemployment benefits rather than into employment. It remains to be seen whether the additional activation measures for existing recipients will have any more impact than was the case in Sweden.

### *3.5 Australia*

Unlike the other disability programs discussed above whose benefits are conditional on contributions—in the case of the U.S., the Netherlands, and Sweden are based on past wage earnings and in the case of Great Britain require beneficiaries to have paid disability taxes for a number of years before they receive disability insurance coverage—Australia’s disability income support program—the Disability Support Pension (DSP)—does not provide benefits based on workers past earnings or even require them to have “paid for coverage”. Instead it is most similar to a means-tested guaranteed minimum income program whose benefits are greater than those provided by other Australian welfare or unemployment benefit programs. Hence, DSP is

closer in concept to a disability-based welfare program than a traditional social insurance program. However its benefit guarantee is substantially higher relative to average wage earnings in Australia than is the Supplemental Security Income benefit guarantee to average wage earnings in the U.S. In that sense its replacement of lost earnings is closer to what DI pays in the U.S. In both Australia and the U.S. disability program benefits are substantially less generous than those of the Netherlands and Sweden.

Nonetheless the DSP program is susceptible to the same risks to growth discussed in the context of our other countries, since it pays benefits higher than those from other programs and eligibility is based on the somewhat malleable concepts of disability. While there have been some changes in the DSP income disregard, tax rates, and in its nominal benefit guarantee, over the entire period from 1970 to 2011, the break-even income threshold where DSP benefits go to zero has only increased slightly faster than average wage earnings. Although this represents an overall “loosening” of the income eligibility criteria for DSP, it is not large enough to explain the variation pictured in Figure 1.

Cai and Gregory (2004) show that there was little or no trend increase in the level of the DSP benefit guarantee payment relative to average weekly earnings between 1970 and 1999—it rose slightly in the early 1970s and has since been a relatively constant fraction of average weekly earnings—suggesting that increases in the replacement rate are not an important explanation for DSP growth over the period up to 1999. Moreover, over the first decade of the 2000s the income threshold actually increased more slowly than average earnings, corresponding to a “tightening” of eligibility criteria for DSP and coinciding with a flattening out of the cumulative unadjusted DSP reciprocity rates over the period and a slight decline in the cumulative adjusted DSP rates between 2002 and 2007 (McVicar and Wilkins 2013).

But, DSP has become more generous relative to earnings at the lower end of the earnings distribution, at least over the period from 1993 to 2011, and this may be a more relevant comparison for low-skilled workers with disabilities. For example, over this period, adult full-time weekly earnings at the 10th percentile increased by a factor of just under 2, whereas the maximum DSP payment has increased by a factor of approximately 2.4 (ABS 1994; 2013). Similarly, the level of DSP payments has increased substantially relative to the level of the Australian minimum wage over the period from 2000 to 2011, and particularly from 2008 onwards. The DSP has also become more generous relative to more general income-support payments, most notably unemployment benefit (known as ‘Newstart Allowance’ (NSA) since 1996), since the mid-1990s.

Nonetheless it is likely that the major changes in DSP recipiency rates reported in Figure 1 and Table 1, are driven by changes in disability eligibility criteria rather than the relative generosity of benefits. This view is supported by work by Cai and Gregory (2004) who suggest that the small drop in DSP recipiency rate between 1980 and 1982 was the result of a tightening of eligibility rules by administrative authority, which began placing greater emphasis on medical factors and less weight on socio-economic factors but that this change in approach was largely reversed in 1983, when the Labor Government came to power.

The most important run up in normalized DSP recipiency rate occurred in the 1990s. Australia experienced its last official and most serious recession in the early 1990s. In 1991, in the midst of this recession, there was a major change in the DSP eligibility criteria. To be eligible for DSP a worker had to be incapable of working more than at 15 per cent capacity. This was increased from 15 per cent (an 85 per cent work impairment standard) to ‘no more than 30 hours per week’—effectively a 25 per cent impairment standard if a 40-hour work week is

considered normal. This effectively changed DSP from a long-term total disability program to a long-term partial disability program with no reduction in benefits. Hence it required DSP gatekeepers to decide if an unemployed worker with a partial (as low as 25 per cent) disability was unemployed because of his or her disability or because of economic conditions in the midst of a period of slow economic growth and high unemployment rates.

It is not surprising that DSP rates increased substantially over this period. While DSP benefits were not significantly greater than first tier social minimum benefits, DSP then provided a somewhat higher and more permanent income floor with no work requirement.<sup>12</sup> Because, as in the U.S., few entrants to DSP leave the program to return to work, such increases in the inflow of beneficiaries during recessions led to increases in the ratio of working-age persons on the disability rolls that last over many additional years.

As the Australian economy recovered and then expanded, growth in DSP slowed. Although unemployment has ebbed and flowed in Australia since then, the deterioration in employment conditions during the two subsequent worldwide recessions, especially during the Global Financial Crisis, has been less severe in Australia than in the United States and other OECD countries. Nonetheless DSP growth increased during both worldwide recessions. And since 2008, DSP rates have increased each year despite a major DSP eligibility change in July 2006 that lowered the work capacity level from no more than 30 hours to no more than 15 hours per week—effectively an increase from a 25 to a 62.5 per cent in the impairment standard.

McVicar and Wilkins (2013) provide a reason for this recent growth in the DSP program. Since 1996 DSP benefit levels—whose growth is indexed to average wage earnings—have grown, both with respect to the minimum wage and with respect to the first tier universal social

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<sup>12</sup>There is no tier two unemployment insurance benefit program in Australia. Rather, unemployed workers are covered by a tier one universal minimum benefit, now called the Newstart Allowance. Benefit levels, like in SSI, are need-based and do not require past work experience. However, recipients are expected to return to work.



minimum income guarantee program that is tied to an inflation index. Hence DSP is not only replacing a greater percentage of low skilled workers' wage earnings but is an increasingly attractive alternative to Australia's Newstart Allowance social minimum benefit guarantee. This pattern is similar to the one documented by Autor and Duggan (2003) and Autor (2011) for the United States.

Cai and Gregory (2004) and McVicar and Wilkins (2013) also argue that reforms to non-DSP welfare payments over the 1990s and 2000s had unintended consequences for DSP receipt. Certain types of payments, such as for temporary sickness, were discontinued in the 1990s and—more importantly—over the 1990s and 2000s welfare benefits for the unemployed and for lone parents became increasingly conditional on verifiable job search and participation in active labor market programs, reducing the relative attractiveness of these benefits. Consistent with these changes, and also with the increased relative generosity of DSP, McVicar and Wilkins (2013) show that over the period from 1993 to 2011, receipt of non-DSP welfare benefits by people with disability declined appreciably, but that this was largely offset by the increase in DSP receipt. Thus, welfare reform that made the benefits for unemployment and lone parents less generous were to some extent thwarted by the shift of significant numbers of beneficiaries from these non-DSP welfare programs to the DSP.

The increase incentives for unemployed low skilled applicants' to apply for disability benefits puts additional pressure on DSP gatekeepers to only admit those who are unemployed because their impairment reaches the DSP standard. But because the relationship between impairment and disability is mutable this is hard to do. Thus, in economic downturns, the increased pool of potentially eligible unemployed workers is likely to result in program growth and may have done so despite the increase in eligibility standards in 2006. This suggests that

while the tightening of program eligibility rules from a 25 to a 62.5 per cent impairment standard may have had some role in mitigating the rise in the relative generosity of DSP program benefits, it is more likely that it is the strong Australian economy that did not go into recession, rather than a fundamental change in its disability system that is responsible for the plateauing of DSP recipiency rates over the 2000s reported in Table 1.

#### **4. Lessons from Reforms in other Countries**

The disability reforms undertaken in the Netherlands, Sweden, and Great Britain, especially in the last decade, were aimed at curbing unsustainable program growth by changing the culture and social expectations for people with disabilities, better aligning the incentives embedded in program design with these expectations, and for the most part reducing the flow of new entrants onto the system. While Australia also tightened their eligibility rules by increasing the partial disability threshold it is likely that the plateauing of their disability recipiency rates over the last decade had more to do with their strong economy than fundamental changes in disability policy. From the U.S. perspective, these European country reforms represent an important success and relevant starting point for discussions about building a sustainable system coming out of the Global Financial Crisis. For Australia they may provide information on how to avoid rapid growth in disability recipiency in the future (for a larger discussion of this issue see Burkhauser and Daly 2013).

In 2002, the Netherlands initiated reforms to the national disability system designed to reduce the disability cash transfer rolls while maintaining a strong, albeit less generous, social minimum safety net for those who do not work. The 2002 reforms were based on the recognition that disability program rules, the administration of those rules, and the methods established to

pay for disability programs greatly influenced the behavior of key actors—employees and employers—at the time a worker experienced the onset of a disability. Recognizing that the existing system did little to signal the true cost—to either workers or their employers—of moving onto the long-term disability transfer rolls, Dutch policymakers restructured the program so that both employers and employees more directly observed and bore the expense. The results have been notable. As shown in Figure 1, Dutch disability reciprocity rates have declined significantly and are now below their 1979 levels.

The Dutch reforms focused on reducing inflows onto long-term disability benefits by making employers bear more of the direct costs of the program. All Dutch firms are now required to fund the first two years of disability benefits to their workers and to pay an experience-rated disability tax based on the number of their workers who move onto the long-term disability insurance program. These reforms provide incentives for employers, who are in the best position to offer accommodation and rehabilitation, to do so in lieu of moving workers with disabilities onto cash transfers.

The reforms also led to the development of a private sector market for disability insurance and with it the greater management of newly impaired workers. This shift in incentives is responsible, in part, for the subsequent decline in inflow of new beneficiaries to the Dutch long-term disability insurance program. Importantly, the reduction in inflows owes to the fact that workers with disabilities are more regularly returning to work rather than simply moving onto other more general cash transfer programs (See: van Sonsbeek and Gradus 2011; de Jong 2012).

In Sweden, combining the agencies that delivered short-term sickness benefits and long-term disability benefits allowed gatekeepers to work with employees and employers right after

the onset of a health impairment. This coordination combined with greater cost-sharing between the government, employers and employees helped drive down sickness benefit receipt and subsequent movement onto the long-term disability rolls. The Swedish experience highlights the importance of early intervention in keeping individuals focused on returning to work rather than investing in becoming eligible for cash benefits.

Tightening medical eligibility rules and having them administered by government appointed rather than family doctors and other reforms aimed at tightening entry, slowed the disability recipiency rate by the end of the 1990s in Great Britain. But, recipiency rates only began to fall in the early 2000s coincident with a new set of work-first reforms that like the Netherlands fundamentally changed the system.

The Pathways to Work program made movement onto the IB program conditional on attendance at work-focused interviews, with the aim of steering at least some recipients into employment support services and ultimately back into the labor market. In 2008 the new Employment Support Allowance (ESA) program, which replaced IB for new applicants, not only included even tougher Work Capability Assessments, but extended the work-focused interviews introduced under Pathways to Work into a requirement to engage in work-related activity for all but the most severely disabled, linked explicitly to benefit payments.

Although the Netherlands, Sweden and Great Britain reformed their systems when it became clear that something needed to be done to control costs, a key lesson from their reforms is that preventing the problem is far easier than solving it once it occurs. This is because it is far easier to stem the flow of new beneficiaries onto the program than it is to return existing beneficiaries to work.

This point is highlighted by disability reforms in Sweden which were much less successful at moving existing sickness and disability beneficiaries off of the rolls. Even when strict time limits are put in place, movement off the disability system for longer-duration beneficiaries is difficult. And when it is done, most frequently it results in a shift to another public program rather than into employment.

In addition to offering specific ideas about how best to reform U.S. policy, the changes in made in these countries suggest that reducing the disability reciprocity rate is possible. They also suggest that low employment rates among current DI beneficiaries do not mean that most DI recipients could not have worked if given alternative policy treatments (e.g., timely accommodation and rehabilitation). Indeed, the marked difference in outcomes among Dutch and Swedish citizens, who were given early versus later employment-oriented services, shows that in a system oriented towards long-term cash benefits rather than work, many of those with residual work capacity will never return to work.

The Swedish findings also challenge the viability of ongoing attempts to limit growth in DI rolls by investing in reducing the number of existing beneficiaries. Although such reforms are ongoing in Sweden, the evidence to date provides little evidence that such “late-intervention” programs will succeed in bringing growth in the rolls down to sustainable levels. The overarching lesson from the Swedish experience is that concentrating resources on workers with health-based work limitations who are trying to decide whether to stay on the job or apply for benefits is likely to be the most productive method of improving the economic integration of people with disabilities.

A final lesson learned all three European countries is that disability programs are a subset of more general employment and transfer programs, and reforms to any one program within this

set of programs can affect the costs and caseloads of the others. This means that policy reforms made in a partial equilibrium environment are likely to have unintended consequences for other aspects of the social safety net. Effective reform strategies must be made comprehensively as part of a package of programs targeted on working-age adults. Indeed, some of the pressure on disability programs prompting their reforms stemmed from previous reforms to unemployment insurance and other social welfare programs that made a movement onto the disability program more attractive.

Much of current Australian disability policy, including the new National Disability Insurance System, is built based on the view that disability is an easily recognizable, objectively determinable, and immutable condition rather than the product of complex interactions between health and the social, cultural, and economic environment. Ignoring the more modern view of disability can lead to gross underestimates of program growth if incentives are not carefully considered. But if they are, the reverse is the case. The evidence from Europe suggests that carefully considering incentives opens the way to more flexible policy designs that better promote the goals of both those with disabilities and the non-disabled taxpayers currently funding them.

The acknowledgement that program rules affect how people with disabilities react to, and fare after, the onset of a health-based impairment is a necessary step to building a sustainable Australian disability system. If individuals and employers are immune from the costs of providing long-term disability benefits they do not have a direct financial incentive to accommodate and rehabilitate employees who could, with such support, continue to work. Waiting until individuals are already on the DSP before engaging the private sector to help them

get off loses a valuable opportunity to intervene early and to potentially prevent individuals from moving onto benefits at all.

## **5. Summary**

It is possible to balance the competing goals of providing social insurance against adverse health shocks during working-age and maximizing the work effort of all working-age adults with and without disabilities. Past disability policies in both the United States and other OECD countries have focused more on the former than the latter, resulting in rapid growth in disability transfer populations that outpaced growth in the economy. Efforts to shift to more pro-work policies over the last decade in Europe suggest that fundamental disability reforms, if done well, can lower projected long-term costs for taxpayers, make the job of disability administrators less difficult, and importantly, improve the short- and long-run opportunities of people with disabilities.

## Appendix A: Data Description and Sources

### Data Description

#### Data Summary

	Australia	Britian	Netherlands	Sweden	United States
Initial Year	1970	1971	1970	1970	1970
Final Year	2011	2012	2009	2009	2011
Missing Years	(-)	1970	(-)	1984	1981
Age Range of Working Population	16-64	16-64	15-65	16-64	16-64

### Data Sources

#### Australia

Historical population estimates are from *the Australian Bureau of Statistics* [www.abs.gov.au](http://www.abs.gov.au)

DSP caseload data is from Australian Government Department of Social Services Statistical Paper 1-10 <http://www.humanservices.gov.au/>

#### Great Britain

Historical population estimates are mid-year population estimates from the Office for National Statistics <http://www.ons.gov.uk>

Disability benefit caseload data (combining IVB, IB and ESA caseloads) are from Social Security Statistics, and from 1999 onwards, from the Department of Work and Pensions, <http://dwp.gov.uk>.

#### Netherlands

Historical population data are from Statistics Netherlands. <http://www.cbs.nl/en-GB/menu/home/default.htm>

Disability insurance caseloads data are from the Institute of Employee Benefit Schemes, courtesy of Jan Maarten van Sonsbeek.

#### Sweden

Historical population estimates are from Statistics Sweden. <http://scb.se>

Disability Insurance prevalence data are from the Social Insurance Agency yearbooks, courtesy of Lisa Laun and Marten Palme.

#### United States

Historical population estimates are from the Census Bureau's Annual Estimates of Resident Population. <http://www.census.gov>

SSDI caseloads and covered workers data are from the Annual Statistical Supplement to the Social Security Bulletin. <http://www.ssa.gov/policy/docs/statcomps/supplement/>



## Appendix B. Decomposing the Disability Reciprocity Rate

The reciprocity rate is equal to the number of disabled worker caseloads as a share of the working age population. The reciprocity rate in year  $t$ ,  $R_t$  can be expressed as:

$$R_t = \sum_i \frac{C_{i,t}}{P_t}$$

where  $C_{i,t}$  is the number of SSDI caseloads in demographic group  $i$  and year  $t$  and  $P_t$  is the size of the working age population in year  $t$ .<sup>13</sup> We further decompose this ratio as

$$R_t = \sum_i \frac{C_{i,t}}{E_{i,t}} * \frac{E_{i,t}}{P_{i,t}} * \frac{P_{i,t}}{P_t}$$

where  $E_{i,t}$  is the number of SSDI eligible workers in demographic group  $i$  and year  $t$  and  $P_{i,t}$  is the size of the working age population in demographic group  $i$  and year  $t$ .

### Counterfactual Reciprocity Rates

We consider several counterfactual scenarios of disability reciprocity. The first and simplest is the scenario in which the normal retirement age is still 65. We do not need a decomposition for this calculation. The counterfactual 2011 reciprocity rate in this scenario, denoted  $\tilde{R}_{2011}$ , would be equal to the number of SSDI caseloads in 2011 for persons under the age of 65 divided by the working age population in 2011.

Next consider the case in which caseloads only evolve due to the aging of the population. The counterfactual reciprocity rate in this scenario is

$$\tilde{R}_{2011} = \sum_i \frac{C_{i,1980}}{E_{i,1980}} * \frac{E_{i,1980}}{P_{i,1980}} * \frac{P_{i,2011}}{P_{2011}} = \sum_i \frac{C_{i,1980}}{P_{i,1980}} * \frac{P_{i,2011}}{P_{2011}}$$

Now consider the case in which caseloads only evolve due to the increase in women's labor force attachment. This causes the share of SSDI eligible women in each age group to increase. For this exercise we let  $i$  index age groups and differentiate between genders using the superscript  $m$  for males and  $f$  for females. Then

$$R_t = \sum_i \frac{C_{i,t}^m}{E_{i,t}^m} * \frac{E_{i,t}^m}{P_{i,t}^m} * \frac{P_{i,t}^m}{P_t} + \frac{C_{i,t}^f}{E_{i,t}^f} * \frac{E_{i,t}^f}{P_{i,t}^f} * \frac{P_{i,t}^f}{P_t}$$

<sup>13</sup> We use the following age groups for men and women (14 total demographic groups): 20-29, 30-39, 40-44, 45-49, 50-54, 55-59, and 60-64. For the Netherlands age categories are decomposed as follows: 15-24, 25-34, 35-44, 45-54, 55-64

and the counterfactual reciprocity rate is

$$\tilde{R}_{2011} = \sum_i \frac{C_{i,2011}^m}{E_{i,2011}^m} * \frac{E_{i,2011}^m}{P_{i,2011}^m} * \frac{P_{i,2011}^m}{P_{2011}} + \frac{C_{i,2011}^f}{E_{i,2011}^f} * \frac{E_{i,1980}^f}{P_{i,1980}^f} * \frac{P_{i,2011}^f}{P_{2011}}$$

In the special case in which we allow for the increase in women’s labor force attachment to also include a “catch-up” effect of women’s disability receipt, the above equation becomes

$$\tilde{R}_{2011} = \sum_i \frac{C_{i,2011}^m}{E_{i,2011}^m} * \frac{E_{i,2011}^m}{P_{i,2011}^m} * \frac{P_{i,2011}^m}{P_{2011}} + \frac{C_{i,2011}^f}{E_{i,2011}^f} * \frac{E_{i,1980}^m}{P_{i,1980}^m} * \frac{P_{i,2011}^f}{P_{2011}}$$

### Percentage Point Contribution to the Increase in SSDI Receipt

Now that we have these counterfactual reciprocity rates it is straightforward to calculate how much of the increase in total SSDI reciprocity since 1980 can be explained by each factor. The percentage point contribution of each factor to total growth is

$$100 * (\tilde{R}_{2011} - R_{1980}) / (R_{2011} - R_{1980})$$

### Additional Details for Australia

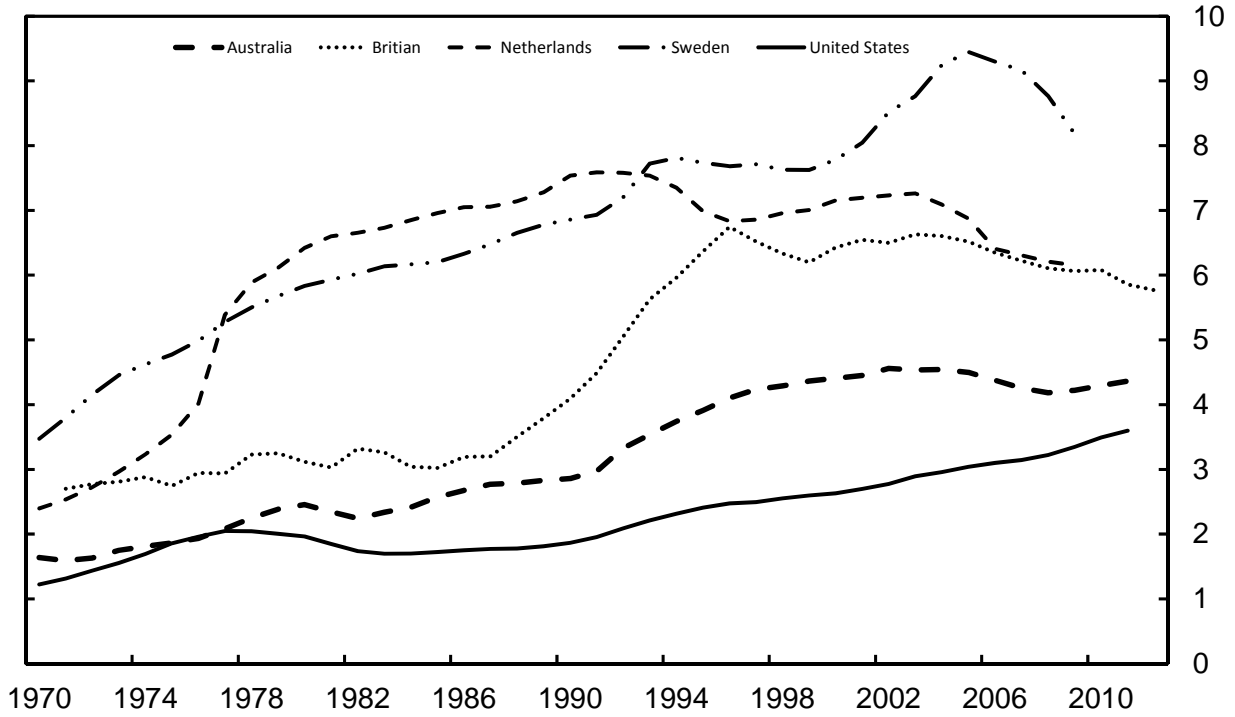
Up until the end of 1995, women were eligible for the Age Pension from the age of 60 years. Since 1 January 1996, however, this minimum age of eligibility has been increased in six-monthly steps every 2 years. The final step is in January 2014, when women, like men, will only be eligible for the Age Pension from the age of 65 years old. At each step, there is a clear increase in the number of female DSP recipients aged 60–64 years, from fewer than 1,000 in 1995 to almost 80,000 in 2011. Following Daly, Lucking and Schwabish (2013), we can reasonably assume that all additional 60–64 year old female DSP recipients after 1 January 1996 (that is, 79,000 by 2011) joined the roll because of the increase in the Age Pension age. This has therefore been a major factor in the growth of the female DSP roll, particularly over the period from 2002 to 2011, where it accounts for almost 70 per cent of the increase in the female reciprocity rate.

### Additional Details for Great Britain

Similarly to Australia, women in GB were eligible for the state (age) pension at the age of 60 until May 2010 since when the state pension age has increased by one month every second month, a process which will be complete when the female pension age reaches 65 years – the current male pension age – at the end of the current decade. We make the same assumption for GB as for Australia, i.e. that all additional female disability recipients over the age of 59 since May 2010 joined the roll because of the increase in the state pension age. In contrast to Australia this has not yet been a major driver of the disability roll in GB, but its contribution is likely to grow as the process continues over the coming years.

**Appendix Figure B1. Growth in Adjusted Disability Reciprocity  
By Country**

**Disability Reciprocity Net of Demographic and Other Factors**



Source: Social Security Administration, US Census Bureau, Australian Government Department of Social Services, Australian Bureau of Statistics, Department of Work and Pensions, Office for National Statistics, Statistics Sweden and Swedish Social Insurance Agency yearbooks, Statistics Netherlands, and the Institute of Employee Benefit Schemes

**Appendix Table B1. Average Annual Growth in Adjusted Disability Reciprocity  
By Decade and Country**

<b>Average Annual Growth in Disability Reciprocity Net of Demographic and Other Factors</b>					
	<b>Australia</b>	<b>Britian</b>	<b>Netherlands</b>	<b>Sweden</b>	<b>United States</b>
<b>1970-1979</b>	4.31	2.41	11.25	5.64	5.70
<b>1980-1989</b>	1.79	1.72	1.77	1.79	-0.96
<b>1990-1999</b>	4.46	5.19	-0.36	1.21	3.68
<b>2000-Final</b>	0.02	-0.53	-1.26	0.79	2.76
<b>1970-Final</b>	2.48	1.99	2.64	2.27	2.72

Source: Social Security Administration, US Census Bureau, Australian Government Department of Social Services, Australian Bureau of Statistics, Department of Work and Pensions, Office for National Statistics, Statistics Sweden and Swedish Social Insurance Agency yearbooks, Statistics Netherlands, and the Institute of Employee Benefit Schemes

Notes: 1.) See appendix for a summary of data years utilized across countries . \* referes to the final year of data available in each country. 2.)Average is computed as the average year over year percent change in the reciprocity rate within the given time period. For missing data a standard linear interpolation is used .

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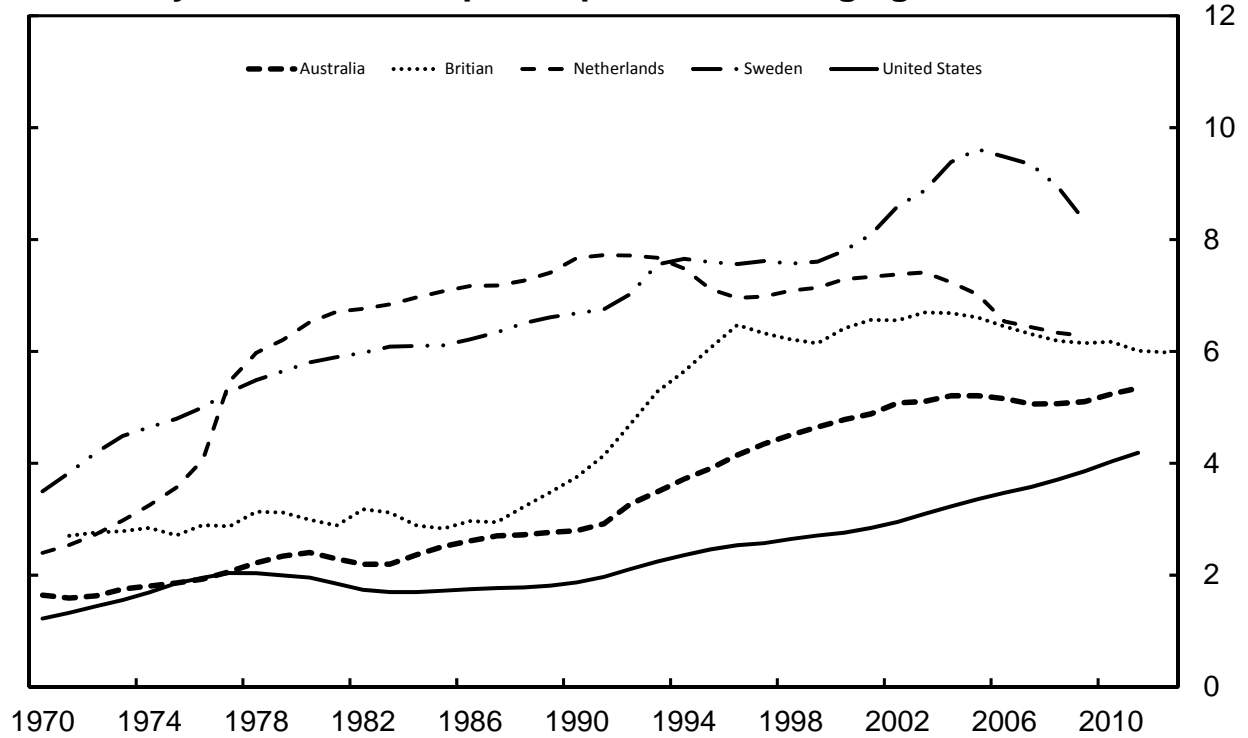
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Figure 1. Growth in Disability Recipiency across Countries

Disability Insurance Recipients per 100 working age

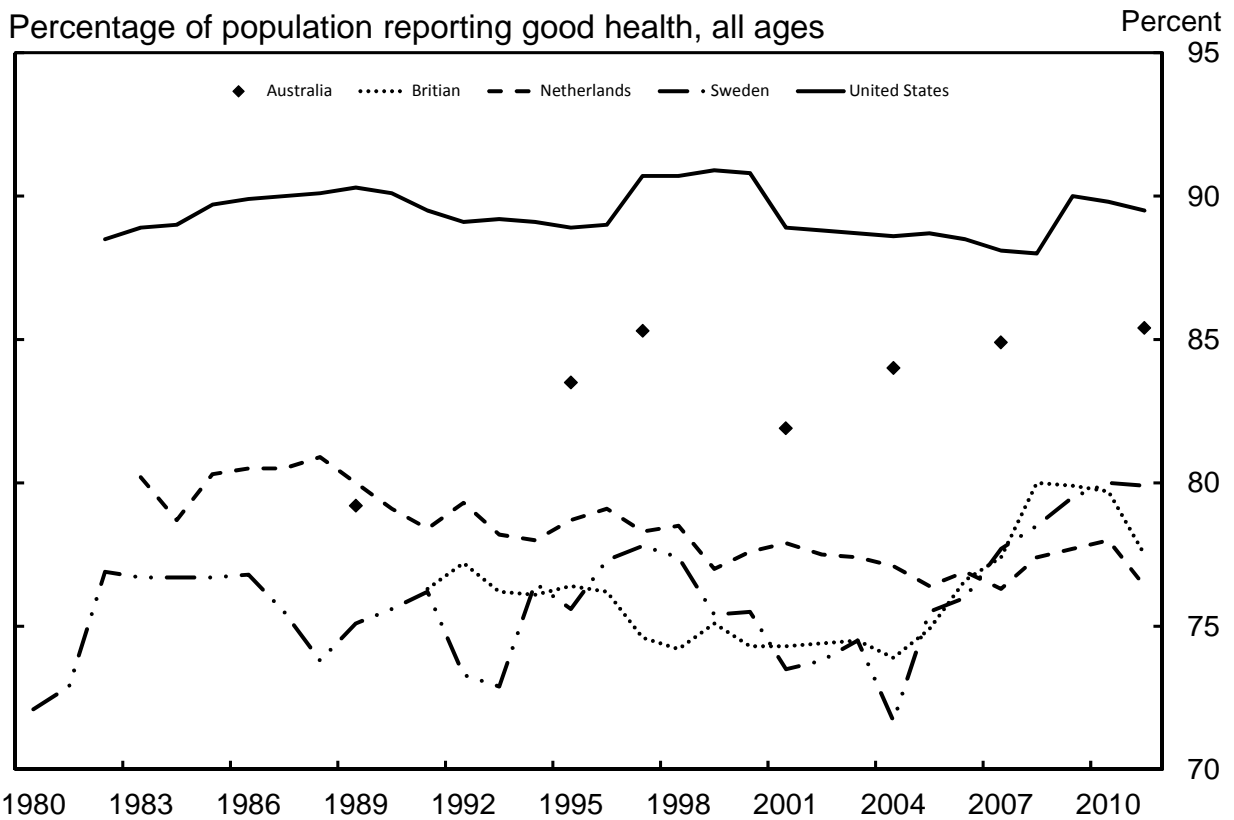


Source: Social Security Administration, US Census Bureau, Australian Government Department of Social Services, Australian Bureau of Statistics, Department of Work and Pensions, Office for National Statistics, Statistics Sweden and Swedish Social Insurance Agency yearbooks, Statistics Netherlands, and the Institute of Employee Benefit Schemes

Figure 2. Trends in Self-Reported Health across Countries

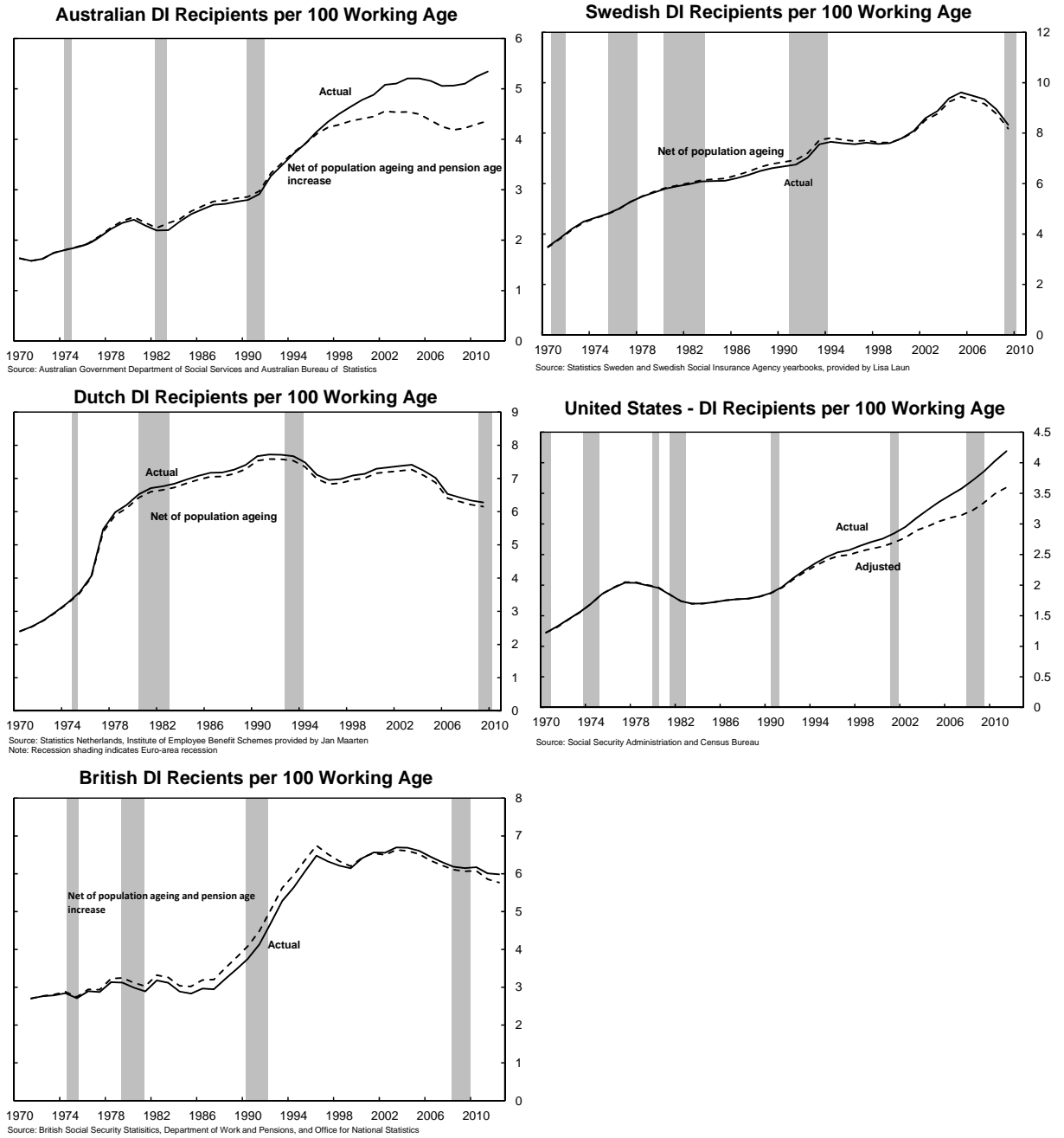
### Perceived health status across countries

Percentage of population reporting good health, all ages



Source: Organization for Economic Co-operation and Development

**Figure 3. Actual and Adjusted Disability Recipiency by Country**



**Table 1. Average Annual Growth in Disability Reciprocity by Decade and Country**

<b>Average Annual Growth in Disability Reciprocity</b>					
	<b>Australia</b>	<b>Britian</b>	<b>Netherlands</b>	<b>Sweden</b>	<b>United States</b>
<b>1970-1979</b>	4.09	1.89	11.45	5.49	5.65
<b>1980-1989</b>	1.73	1.27	1.79	1.59	-0.91
<b>1990-1999</b>	5.37	5.99	-0.34	1.44	4.10
<b>2000-Final*</b>	1.18	-0.18	-1.25	1.00	3.71
<b>1970-Final*</b>	2.98	2.08	2.69	2.30	3.10

Services, Australian Bureau of Statistics, Department of Work and Pensions, Office for National Statistics, Statistics Sweden and Swedish Social Insurance Agency yearbooks, Statistics Netherlands, and the Institute of Employee Benefit Schemes

Notes: 1.) See appendix for a summary of data years utilized across countries. \* refers to the final year of data available in each country. 2.) Average is computed as the average year over year percent change in the reciprocity rate within the given time period. For missing data a standard linear interpolation is used .