Disability Insurance and Health in Europe and the US

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Abstract

Rising fiscal pressure from disability insurance programs have increased pressure on governments to scale back benefits. At the same time, restricting enrollments based on stricter eligibility criteria have raised concerns about workers in poor health unable to qualify for disability insurance. We first use data from the Survey of Health, Ageing, and Retirement in Europe (SHARE) and the Health and Retirement Study (HRS) to compare patterns of health and DI participation across countries, and find little or no evidence of tradeoffs between health severity for DI enrollees and overall enrollment rates. We then develop a model of disability insurance participation depending on health, market opportunities, and country-level eligibility criteria that is potentially consistent with the aggregate empirical evidence. The model is estimated using the SHARE and HRS data, with estimates suggesting a pervasive and adverse impact of U.S. strategies for containing costs, such as long waiting periods and strict medical limitations on eligibility. Public policy reforms should not be restricted to loosening or restricting eligibility requirements, but should focus on the complex challenges facing workers experiencing chronic disability and pain.

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1. Introduction

There are large variations across countries in the percentage of GDP devoted to disability insurance, ranging from around one percent in the U.S., Greece, and Italy, to over four percent in Sweden (Börsch-Supan, 2007). For many countries, the real worry comes from rising rates of disability insurance enrollment, and the resulting pressure on public sector budgets, whether in European countries or the United States (European Commission, 2006; OECD, 2003; McVicar, 2008; Autor and Duggan, 2006).

In response, some governments have restricted eligibility and reduced payment rates (Euwals, et al., 2009), but these reforms in turn have caused concerns about restricted access to disability insurance for people with real disabilities. The U.S. disability insurance program is particularly notable for the very long waiting period and extensive appeals for people with what appear to be serious disabilities (Eckholm, 2007). Thus government reform is often caught between the demands for financial savings and concerns about covering people who are truly unable to work.

The tradeoff may appear straightforward – expanded eligibility allows more people, albeit with somewhat less severe disabilities, to enroll. Thus the key question would appear to be: at what point do we deem someone sufficiently disabled to warrant disability insurance? Some countries have tried to sidestep this question by defining disability in percentage terms and awarding smaller awards for less severe disabilities, but this approach has also expanded the potential pool of enrollees at the same time.

In this paper, we use data from the Survey of Health, Ageing, and Retirement (SHARE) and the Health and Retirement Study (HRS) to compare patterns of health and DI participation for people aged 50-64 across eleven countries in Europe and the U.S.

We first demonstrate that the apparent tradeoff described above does not seem to hold for country-level data – there is no correlation between the average health of people on disability and the fraction of people enrolled in disability insurance (DI).

We therefore consider a simple model of enrollment and allow for systematic country-level differences in the extent to which they weight health and market opportunities in DI enrollment. In this model, we first demonstrate that the model is at least potentially consistent with the aggregate patterns – that greater eligibility may not be associated with necessarily better health (on average) for DI enrollees. This could be the result of some countries being systematically less healthy than others, but we find that even differences in health between the DI and the non-DI population are unassociated with the fraction enrolled in DI. We then estimate the model using individual data in SHARE and the HRS, and show a different explanation for the puzzle: European countries appear to place a greater weight on the lack of market opportunities – as proxied by education – while in the US there is no impact of market opportunities on DI enrollment once one controls for self-reported health.

What's going on in the U.S.? As noted above, it has among the strictest *de facto* eligibility rules and require strong documentation of a medical illness (rather than tying benefits to workplace productivity, as in many European countries), yet the enrollment rate is not much different from median of the 11 European countries. And people in the U.S. program systematically report worse health status and a greater level of depression relative to the non-disabled population. There is an emerging view from the clinical literature, however, that health – and actual pain and depression – may in turn be associated with the DI requirements that enrollees exhibit a medical disease and not simply lagging workplace productivity. While speculative, this view can reconcile our empirical results and those in Autor and Duggan (2003; 2006).

The policy implications also suggest that attempts to restrict eligibility by imposing waiting periods and requiring observable clinical disorders may well be counterproductive. Instead, programs designed to intervene quickly and provided supportive employment where possible can best avoid the worst-case outcome of a permanent transition to long-term chronic pain and disability (Burns, 2007; Drake et al., 2009).

2. An Empirical Puzzle

In an important study of disability using the SHARE and HRS data (along with the ELSA data from the UK), Börsch-Supan (2007) noted the wide variation across countries in enrollment rates for the 50-65 population, and suggested that most of the variation could be attributed to institutional country-level differences in eligibility and compensation levels.

How should these variations affect the average level of disability across these countries? The simplest view of a disability program is one which, in an ideal world, leads to the most severely disabled receiving benefits first, and then as eligibility expands, the program moves down the severity curve so that successively less disabled people becomes eligible. (While we recognize the distinction between health and disability, for now we use the two terms interchangeably.) We test this hypothesis using the SHARE and HRS data, described in more detail below. We calculate the weighted fraction of people aged 50-64 with self-reported health that is either fair or poor, across all European countries in the SHARE sample and the U.S.[1] We graph these percentages against the fraction of people age 50-64 who are receiving DI benefits, with results shown in Figure 1. While Sweden, in the lower-right hand corner of the graph, appears to be consistent with our basic hypothesis – with nearly fifteen percent enrolled in DI and fewer than 40 percent reporting being in fair and poor health -- Denmark registers an even higher percentage on DI, but with 65 percent of the DI population claiming fair or poor health. The overall correlation is certainly negative (because of Sweden), but is not significant at the 10 percent level. Nor is there any association between depression and the percentage enrollment for the DI program. There are a variety of reasons why we might not observe the hypothesized negative correlation, ranging from differences in underlying health status across countries to systematically different DI programs across countries. For this reason we consider next a simple model of DI.

3. The Model

We begin with a model of disability where the decision to go on disability is jointly determined by the individual (who must decide to apply) and the government officials who must grant permission to receive DI payments. Let

$$\begin{aligned} & D_i^* = X_i\beta + \alpha h_i + \gamma w_i + \varepsilon_i \\ & D_i = 1 \quad if \quad D_i^* > C_j \\ & D_i = 0 \quad otherwise \end{aligned} \tag{1}$$

where D_i is a categorical variable which is one if individual i is receiving DI benefits, and D_i^* is a linear index which in turn depends on exogenous factors X_i, health status h_i, and

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[1] We focus on the 50-64 population because in the US as well as in several European countries many people make the transition from disability insurance to the old-age Social Security program at age 65.

market wage (if working), w_i. The individual only becomes eligible for DI only if the DI authority in country j agrees to it, reflected by the term C_j. Note also that the coefficients α and γ (as well as β) are not simply individual-level parameters, but also reflect implicitly the decision choices made by the country DI authorities. For example, suppose that the true country-level restrictions for individual i are $C_{ij} = C_j + \psi w_i + \upsilon h_i$. These latter two parameters are then subtracted off from the individual-specific measures (in D*) to form the combined influence of individual preferences and country-level decisions, leaving just the country-specific parameter C_j on the right-hand side of the equation.[2] We specify a conventional error term ε_i, but for the theoretical section we suppress ε_i and assume a deterministic model.

Figure 2 illustrates this simple model for the health and wage (or market opportunity) dimensions. The ellipse drawn in Figure 2 represents the distribution of health (h) and wage opportunities (w) in this general population for Country Z (conditional on X). We draw an ellipse rather than a circle to reflect the observed correlation between health and wages. Consider first the red line (mm') with an intercept on the Y axis equal to $[C_j - X\beta]/\gamma$, and with a slope equal to $-\alpha/\gamma$. (Since we would expect both α and γ to be negative, this slope should also be negative.) In this deterministic model, everyone below the line mm' should be on DI insurance, while everyone above the line should not be on DI. One implication of this model also is that, conditional on being in DI, those with worse market opportunities should also be in better health.

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[2] This approach also assumes that both the potential wage and health are commonly observed by the government disability agency and the individual, but in practice this is not always true. A more complex model of disability insurance however is beyond the scope of this paper.

The point A represents the mean value of both wages (its height along the Y axis) and health (its distance along the X axis) for people who are enrolled in DI, while B shows the corresponding means for those who are not on DI. Consider now a different country with more liberal rules for DI enrollment, reflected in a higher C_j (and thus easier to qualify for given that α and γ are both negative), this is shown in the blue line (nn'). This new policy will result in a larger set of people eligible for DI, with a resulting rise in average values both for health status and wages conditional on eligibility, as shown by the upward (and outward) shift in the conditional mean from A to A'. Thus in this simple model, one might expect that more generous DI plans which in turn leads to more people becoming eligible (as in Börsch-Supan, 2007) would in turn lead to a generally less severely disabled group of DI recipients, and with better market opportunities.

The empirical puzzle is therefore why we don't see this pattern in the data. One possible explanation is shown in Figure 3, which allows for countries to exhibit different levels of self-reported or documented health levels (e.g., Banks, et al., 2006). If country Z has a more restrictive DI policy (mm') than country Y (nn'), but country Y is less healthy, corresponding to the shifted distribution shown in Figure 3, then the conditional mean health for country Y (A') for DI participants could still be below the conditional health for country X (A), despite the fact that a larger fraction of the ellipse (and hence the distribution of workers) are enrolled in DI in country Y.

One approach to sidestepping this potential confounder is to compare the *difference* in self-reported health between the disabled and non-disabled groups, thereby implicitly controlling for country-level differences in the mean values of health measures. As well, this also controls for the findings that people in different countries seem to have different norms about what constitutes poor health (Smith, et al., 2007). For example, in Figure 3 a movement to a more generous DI program results in a shrinkage in the difference between the means (as measured in terms of health on the horizontal axis) in Country Y (that is, A' versus B') in comparison to the wider spread in health for the DI versus the non-DI groups in Country Z (A versus B).

This property certainly holds in the graph as drawn, but it is not always true, as it depends on the shape of the density function for health and the location of the cut-point. (One simple counter-example – if the cut-point of a normal distribution went from the 90th to the 95th percentile of the distribution of health, the mean health for the vast majority of people receiving benefits would respond more sluggishly than the mean health for the shrinking group of non-recipients.) However, simulations using the normal distribution suggested that this is true empirically, and in general one would expect to find this weaker condition – that the difference in health status shrinks as more people become eligible – to hold when enrollment rates are 30% or less. Note also that this approach can potentially control for differences in the structure of the questionnaire between SHARE and HRS, as we shall see in the empirical section.

Another possible explanation for our empirical puzzle is that countries differ systematically with regard to their relative weights placed on health and potential wage rates or market opportunities in judging eligibility for DI. Figure 4 shows a scenario in which the wage and health distribution is the same for two countries, but they differ with regard to the relative emphasis placed on health versus market opportunities (ie the ratio of the coefficients α/γ vary). In this case, the more steeply sloped line nn', which compared to mm' places greater emphasis on health qualifications (that is, the "medical model" of disability), could result in a sicker group of people (both in a relative and absolute sense) but with a higher fraction who are actually enrolled in DI.[3]

A final possibility relates to the size of the error term in the decision, whether for the individual or the disability board. If the board was relatively random in its choices, there would be an attenuated distinction between the average and marginal recipient. As well, the difference between the average health of the DI and non-DI enrollee would also shrink.[4]

4. The Data

We use the SHARE and HRS data on people age 50-64. Properties of the SHARE data, such as response rates and sample sizes, have been reported elsewhere (e.g., Börsch-Supan, 2007). The HRS is a similar longitudinal study, although for this analysis (and to allow comparability with the SHARE data) we consider just the cross-sectional data from 2004.

About two-thirds of the variables in SHARE are identical to variables in HRS, and most of the remainder is fairly comparable (Börsch-Supan, 2007). Some transformations of the original variables have been necessary to ensure close comparability between the two data sets. Self-reported health (excellent, very good, good, fair, poor) lined up well, although of course people in different countries may interpret the categories differently (e.g., Smith, et al., 2007).

The construction of a closely comparable measure of depression required some variables transformations. First, both the SHARE and the HRS asked only a subset of the

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[3] See Kaplan (2002) and OECD (2003) for a discussion of models od disability.

[4] Of course, the variance of the error term in a probit equation is one by definition; but the greater randomness would be reflected in smaller coefficients and marginal probabilities.

original CES-D standard depression items. The SHARE (dropoff) asked 14 of the original CES-D items, while the HRS asked only 9 of them. We matched the 9 questions present in both data sets.[5] More importantly, the format of the SHARE and HRS answers to the CES-D questions is different. The HRS used a simple “yes-no” response format, while SHARE used a four-level frequency response format, proposing four different categories: “almost all of the time”, “most of the time”, “some of the time”, “almost none of the time.” [6] We assigned the first two to “yes” and the second two to “no.” Our modified score ranged from -3 to 6, with -3 corresponding to “best case” mental states and 6 the worst. However, this mapping is not perfect, as shown by Steffick (2000) who compared the two-answer and four-answer combinations during the year in the HRS when both sets of responses were provided, since relatively few of the “some of the time” group answered “yes” when given the chance.[7] We adjust for this problem by considering primarily the difference in our adjusted depression score between DI enrollees and non-DI enrollees. This adjustment controls for differences in the mean value, but may still be imperfect when the distributions differ.

Education was split into primary, secondary, and tertiary using the SHARE guidelines. For the HRS, primary corresponded to 11 years of education or less, secondary was 12 years, and tertiary was more than 12 years of education.

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[5] The questions are discussed in Appendix XX.

[6] HRS in the very first wave used a four-level frequency response (but slightly different phrasing than SHARE: rarely/none of the time, some of the time, most of the time, all/almost all of the time) but then switched to the yes/no format in order to simplify telephone administration.

[7] In an experimental module of HRS wave 2, a subset of respondents was asked both the four-level frequency questions used in HRS wave 1 and the then new yes/no response scale. Steffick (2000) finds some disagreement between the two forms of the scale and shows that the major sources of discrepancy from collapsing the four-level response categories into yes/no responses are the respondents that report “some of the time” on the frequency response. It follows that designating “some of the time” respondents as “yes” overstates the endorsement of the item, while designating them as “no” understates the prevalence.

5. Results

Table 1 shows the percentage of people age 50-64 reporting fair or poor health by country, and for the DI and non-DI population. There is considerable variation across countries in this percentage, for both those not receiving DI and those receiving it. For example, 26 percent of non-DI recipients in Germany report fair or poor health, in contrast to just 5 percent in Sweden and 9 percent in Switzerland. For those receiving DI, there is also remarkable variation, again from 38 percent in Sweden to 76 percent in the US and 80 percent in Germany. We have argued that the difference in these measures can at least (in theory) remove the additive mean country effects, and so the third column in Table 1 shows these differences. There is far less variation overall, and somewhat different patterns, but Germany, Belgium, Greece, the Netherlands, Denmark, and the U.S. all demonstrate differences of 50 percent or more. The correlation between the difference and the percentage of the population on DI is essentially zero. Finally, we show a somewhat different statistic: the percentage of people who report either fair or poor health who are covered under the DI system.[8] This does range considerably depending on the coverage of the program, from 11 percent in Switzerland and Greece to 57 percent in Sweden.

Somewhat different results are found for the subcategory CECD depression score. Again, there are large variations across countries in the absolute level of depression but less variation in the differences. Denmark as well exhibits far less of a gradient in depression by DI status compared to its previous pattern for self-reported health. The US

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[8] Equal to the number of people in DI who say they are in fair or poor health divided by the universe of people who are in fair or poor health.

stands out as the country with the largest differential in terms of people with self-reported symptoms associated with depression.

Finally, we consider probit estimates of the model in Equation (1), shown in Table 3. Consider first the regressions for the European countries (pooled) and the US. (The results are similar when dummy variables are included for each country.) The largest difference between the two specifications is that education (or market opportunities) is associated with the likelihood of being on disability in European countries conditional on health status, but this does not hold in the U.S. (When not controlling for self-reported health, education is strongly associated with the probability of being on DI in the U.S.) Considering the ratio of the two marginal effects suggests that the U.S. line looks more like nn’ in Figure 4, compared to mm’ for European countries. Separate regressions are provided for each country in the remainder of Table 3; there is variation in these estimates, although most of the education coefficients are larger than those found in the U.S.

6. Conclusion

In this paper, we have extended the earlier results of Börsch-Supan (2007) to study the reported health and work opportunities of the population age 50-64 enrolled in a disability insurance (DI) program across a sample of 11 European countries and the United States. While these results are still preliminary, we can suggest three basic results arising from our theoretical and empirical analysis.

First, there appears to be little or no association between the enrollment rates for DI programs and the average self-reported health of the DI population. This seems somewhat puzzling, in that one might expect a tension in most programs between extending coverage and enrolling successively less disabled people as a result. That the marginal enrollee appears no different than the average enrollee is surprising even when we adopt a more robust measure (relative to differences across countries in underlying health status), which is the difference between measured health status for the DI and the non-DI populations.

Second, we develop a model in which these aggregate patterns make sense given that different countries could place different weights on the two general criteria for eligibility – health status and wage opportunities or productivity at work. We use education as a largely exogenous proxy for market opportunities, and show that differences in the weights that individual countries (and individuals in those countries) place on health (α) and market opportunities (γ) can in theory explain the empirical puzzles we observe.

Third, we use the individual SHARE and HRS data to show that differences in α and γ across countries may help to explain the aggregate puzzle. The U.S., for example, exhibits modestly high rates of enrollment, but its DI enrollees appear to exhibit the poorest health (whether overall health or depression) compared to any other country in the sample. One reason is that, *conditional* on self-reported health, educational attainment has no impact in the U.S. of the likelihood of DI enrollment; thus in the US one does not find relatively more healthy people with worse market opportunities. By contrast, in most European countries lower educational attainment leads to a much higher chance of being on DI, even controlling for health status.

These results seem to make sense. Certainly the U.S. holds to a strict "medical model" of DI eligibility – that it's not enough to be less productive at work, one also needs an established and severe clinical disease to gain eligibility. And the US DI program makes it very difficult indeed to qualify for DI, with recipients who report broken bones and chronic diseases often waiting 4 or 5 years for final decisions, during which they're not supposed to be working (Eckholm, 2007). Thus the dependence of enrollment on health status is certainly consistent with (a) a system that depends nearly entirely on poor health for eligibility, but which in turn (b) draws from a population in fairly poor health to begin with.

However, these results are also consistent with a different model, one in which requiring medical reasons for disability leads to worse overall levels of illness and depression than would otherwise be the case. There is increasing evidence that pain and depression – both very important sources of disability – are affected by social norms or economic factors, perhaps drawing on the insight that regions of the brain affected by pain are also associated with emotion. One example comes from Cassidy et al (2000) who reported a quicker resolution to whiplash injury following a change from tort liability to no-fault liability in Canada. Of course, there are strong incentives of patients still in litigation to report injuries strategically. However, Cassidy (private communication) suggested better outcomes for the no-fault population after the cases were resolved and there was no longer an incentive to bargain over settlements.

During the 1980s, there was an epidemic of repetition strain injury (RSI) in Australia. As described by Gawande (2002):

> This was not a mild case of writer's cramp but a matter of severe pain, which started with minor discomfort during typing or other

> repetitive work and progressed to invalidism. The average time that a sufferer lost from work was seventy-four days. As with chronic back pain, no consistent physical abnormality or effective treatment could be found, yet the arm pain spread like a contagion. (p. 128)

That is, RSI spread like an infectious disease; some factories or states were affected in large numbers and others not. By 1987, the epidemic was over, with observers viewing the most important reasons being that the syndrome was out of favor with physicians, and that it became harder to receive disability payments because of the RSI. While the evidence presented here is suggestive rather than definitive, it does raise questions about the interaction DI, social norms, and self-reported disability. Hadler, Tait, and Chibnall (2007) have proposed that chronic back pain often evolves in response to the strong incentives inherent in the U.S. workers' compensation system, while Gawande's discussion of RSI points to a social contagion model as in Glaeser, Scheinkman, and Sacerdote (1996, 2003) or Rege et al. (2008).

We can suggest two policy implications from this study. The first is that the simple model emphasizing a tradeoff between the size (and financial burden) of a DI program and the average health of those either in the program (or excluded from the program) does not appear to be borne out by the aggregate cross-country data. The marginal enrollee in an expanded program would be any less disabled than the average enrollee already in the program. Second, and more speculatively, restricting budgetary costs by emphasizing a "medical model" of disability – that only people who are deemed clinically ill can become eligible – is probably not the best approach. Much of the growth in the U.S. DI program has arisen from musculoskeletal problems (which rarely can be diagnosed objectively) or mental illness, and judging who is sufficiently disabled to qualify for payments is difficult indeed and may perversely lead to a greater prevalence of genuine and disabling pain and depression through social networks or other pathways.

Instead, the more promising approach is, rather than forcing people to show great distress before awarding payments, to encourage and try to divert workers away from the medical model of disability and to remain working despite the disability or pain. The recent successes of supportive employment in the U.S. and Europe, by which mentally disabled people are encouraged to return to appropriate work, shows considerable promise (Burns et al, 2007), and there is at least some suggestive evidence that at least in the U.S., such programs can pay for themselves by reducing disability and medical costs (Drake, et al., 2009).

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Figure 1: Scatter Diagram of the Percentage of Self-Reported Fair/Poor Health for Disability Insurance Enrollees, 12 Countries

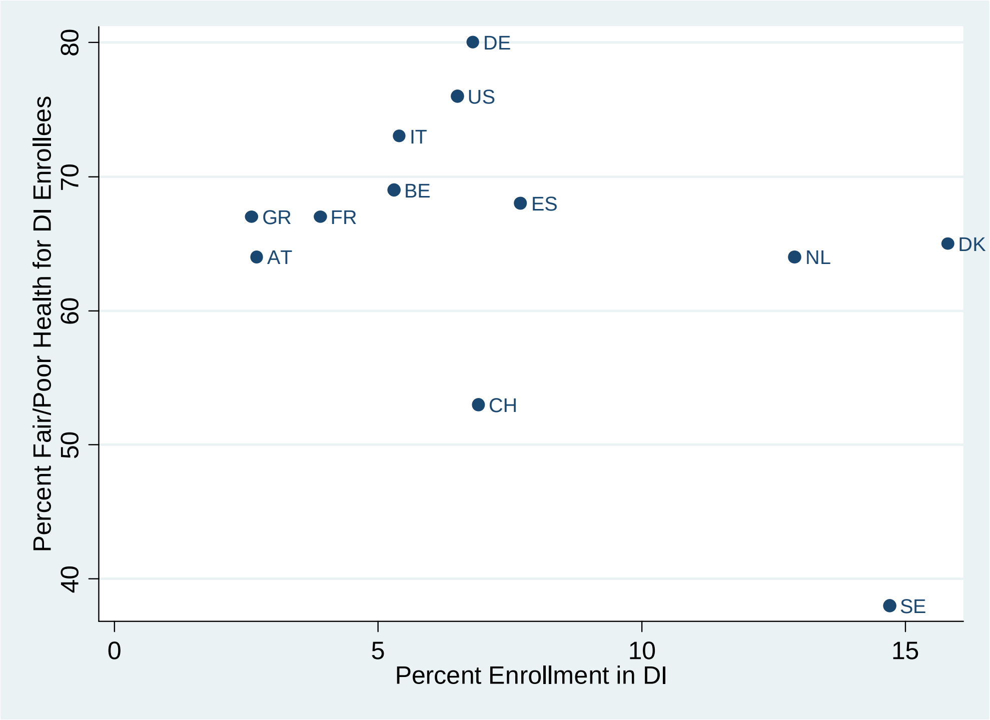

Figure 2: Graph Showing Distribution of Individuals by Health and Wage Rate (or Market Opportunities), and the influence of Disability Insurance

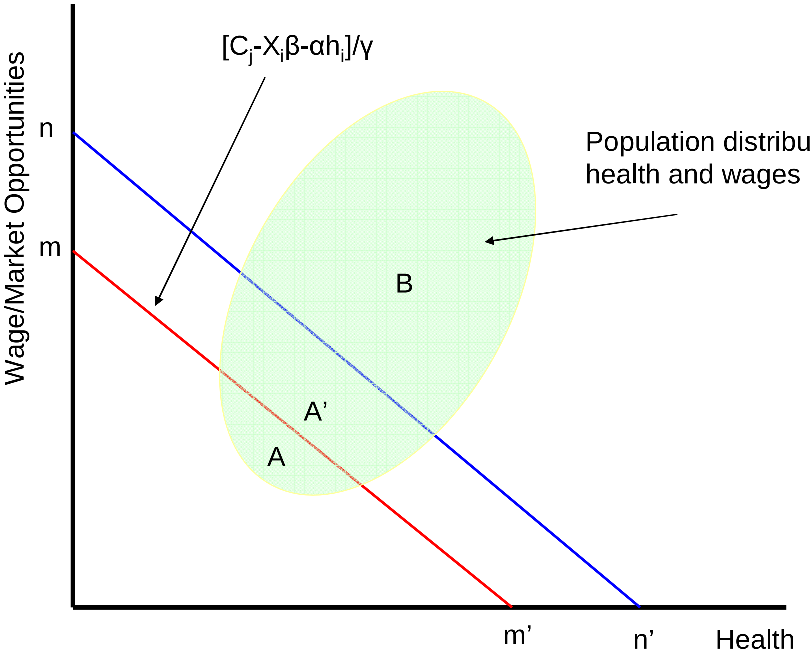

Figure 3: Graph Showing Distribution of Individuals by Health and Wage Rate (or Market Opportunities) for Two Countries, Z and Y

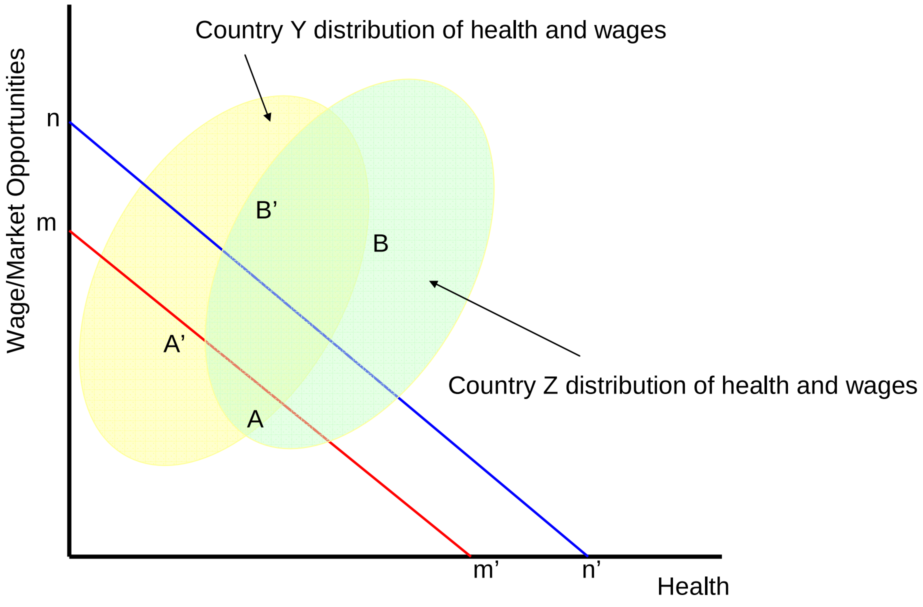

Figure 4: Graph Showing Distribution of Individuals by Health and Wage Rate (or Market Opportunities), and Different Country-Level Disability Systems

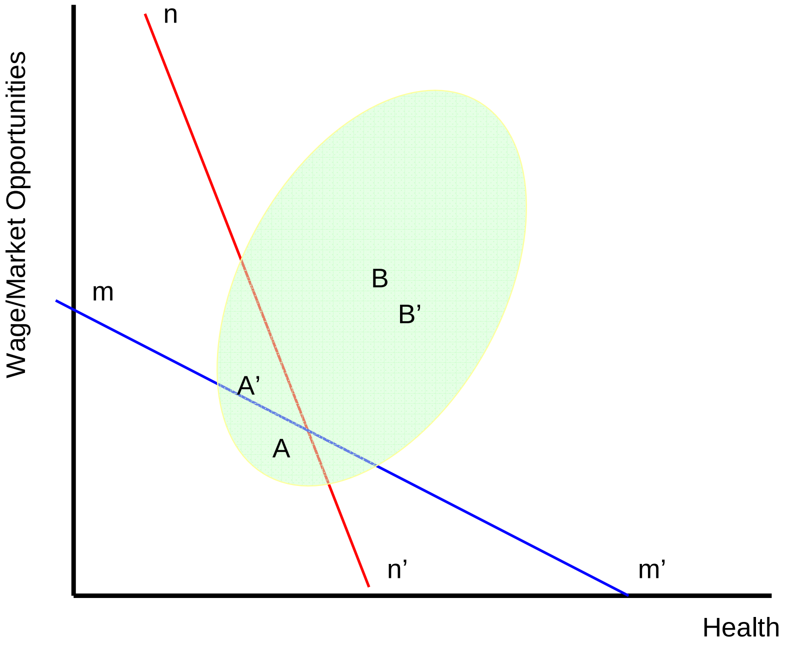

Figure 5: Scatter Diagram of the Difference (Between DI and non-DI Enrollees) in the Percentage Reporting Fair/Poor Health, 12 Countries

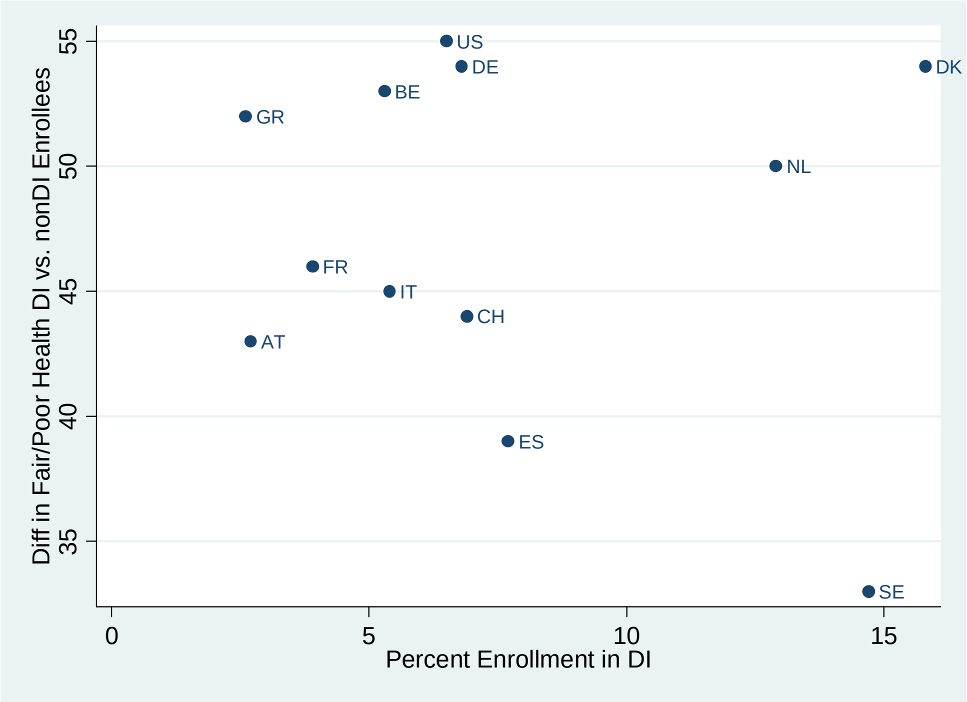

Figure 6: Partial CESD Depression Score: Difference between DI and non-DI Population Age 50-64

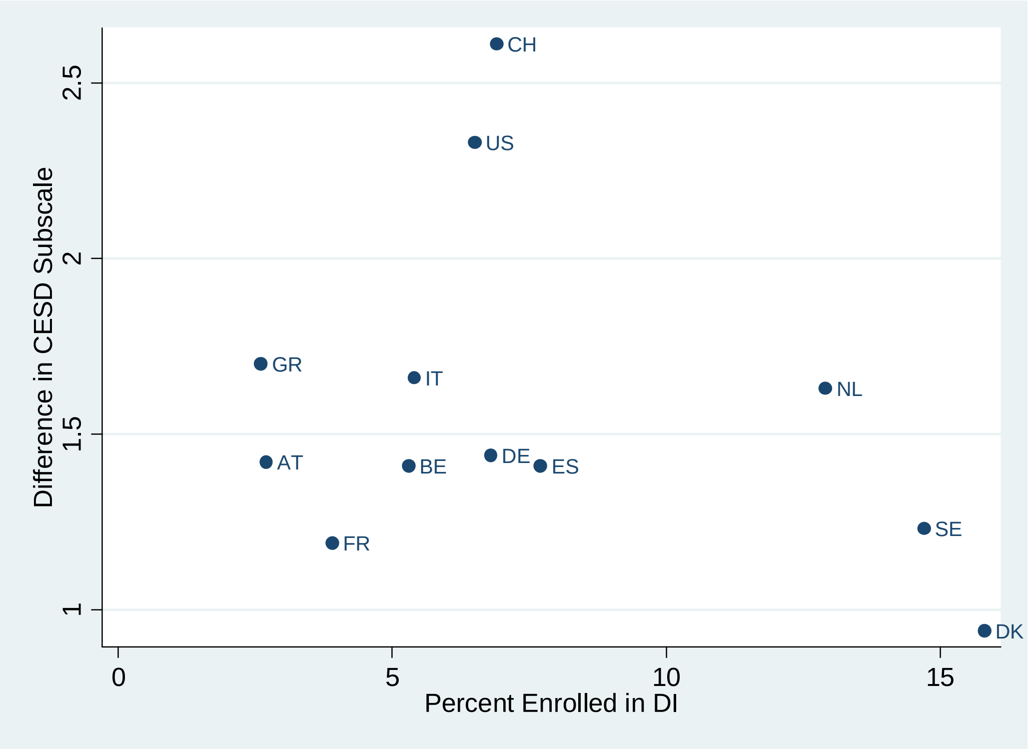

Table 1: Percentage of People in Fair or Poor Self-Reported Health, by Disability Insurance Status and Country

	Not on Disability Insurance	Receiving Disability Insurance	Difference	% on DI*	% Fair/poor Enrolled in DI
United States	21	76	55	6.5	20
Sweden	5	38	33	14.7	57
Denmark	11	65	54	15.8	53
Germany	26	80	54	6.8	18
Netherlands	14	64	50	12.9	40
Belgium	16	69	53	5.3	19
France	21	67	46	3.9	11
Switzerland	9	53	44	6.9	30
Austria	21	64	43	2.7	08
Italy	28	73	45	5.4	13
Spain	29	68	39	7.7	16
Greece	15	67	52	2.6	11

Source: SHARE and HRS. Population: Age 50-64. *Börsch-Supan, 2007. US data for 2004.

Table 2: CESD Depression Scores, By Disability Insurance Status and Country

	Not on Disability Insurance	Receiving Disability Insurance	Difference	% on DI*
United States**	-1.18	1.15	2.33	6.5
Sweden	-1.78	-0.55	1.23	14.7
Denmark	-2.23	-1.29	0.94	15.8
Germany	-1.62	-0.18	1.44	6.8
Netherlands	-2.11	-0.48	1.63	12.9
Belgium	-1.61	-0.20	1.41	5.3
France	-1.32	-0.13	1.19	3.9
Switzerland	-2.01	0.60	2.61	6.9
Austria	-1.64	-0.22	1.42	2.7
Italy	-0.66	1.00	1.66	5.4
Spain	-1.03	0.38	1.41	7.7
Greece	-1.05	0.65	1.70	2.6

Source: SHARE and HRS. Population: Age 50-64. * from Börsch-Supan, 2007. ** One point for every "yes" or "no" denoting less depression. All other countries: Almost all of the time or most of the time denotes yes, some of the time, and almost none of the time denotes no.

Table 3: Probit Regression Analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Euro Countries	US	SE	DK	DE	NL	BE	FR	CH	AT	IT	ES	GR
Respondent is male	0.011	0.013	-0.056	-0.031	0.020	0.043	0.034	0.011	0.010	0.025	0.023	0.048	0.002
	(0.004)	(0.004)	(0.013)	(0.020)	(0.009)	(0.016)	(0.008)	(0.007)	(0.011)	(0.012)	(0.011)	(0.016)	(0.006)
Age 55 – 59	0.005	0.001	0.017	-0.002	0.027	0.022	-0.006	-0.004	0.006	-0.01	0.002	-0.011	-0.001
	(0.005)	(0.005)	(0.018)	(0.024)	(0.014)	(0.019)	(0.007)	(0.006)	(0.015)	(0.013)	(0.013)	(0.015)	(0.006)
Age 60 – 64	-0.001	-0.01	0.022	-0.063	0.011	0.113	-0.005	-0.026	0.019	-0.037	-0.012	-0.007	0.001
	(0.005)	(0.004)	(0.020)	(0.026)	(0.013)	(0.026)	(0.009)	(0.008)	(0.018)	(0.016)	(0.014)	(0.015)	(0.007)
Respondent is married	-0.046	-0.024	-0.06	-0.126	-0.018	-0.149	-0.036	-0.031	-0.069	-0.029	-0.013	-0.075	0.007
	(0.006)	(0.005)	(0.023)	(0.033)	(0.012)	(0.033)	(0.013)	(0.011)	(0.030)	(0.016)	(0.015)	(0.025)	(0.005)
Secondary education	-0.022	-0.004	-0.023	-0.085	0.006	-0.013	-0.016	-0.007	-0.027	-0.005	-0.024	-0.043	-0.010
	(0.004)	(0.005)	(0.014)	(0.024)	(0.011)	(0.018)	(0.006)	(0.006)	(0.009)	(0.012)	(0.009)	(0.011)	(0.005)
Tertiary + education	-0.023	-0.004	-0.029	-0.096	-0.012	-0.013	-0.017	-0.009	-0.023	-0.007	-0.028	-0.047	-0.009
	(0.004)	(0.005)	(0.015)	(0.022)	(0.012)	(0.018)	(0.007)	(0.007)	(0.012)	(0.015)	(0.011)	(0.011)	(0.005)
Retired	0.026	0.130	0.378	0.250	0.002	-0.108	-0.035	-0.004	-0.023	0.036	0.018	0.048	0.058
	(0.006)	(0.014)	(0.038)	(0.053)	(0.012)	(0.011)	(0.007)	(0.010)	(0.011)	(0.015)	(0.012)	(0.027)	(0.021)
Excellent health status	-0.047	-0.034	-0.098	-0.098		-0.090	-0.031	-0.018	-0.036		0	-0.009	
	(0.004)	(0.004)	(0.012)	(0.019)	b	(0.015)	(0.006)	(0.007)	(0.013)		(0.021)	(0.029)	
Very good health status	-0.044	-0.035	-0.089	-0.067	-0.027	-0.075	-0.018	-0.014	-0.052	-0.024	0	-0.014	
	(0.004)	(0.004)	(0.013)	(0.022)	(0.010)	(0.016)	(0.008)	(0.007)	(0.014)	(0.012)	(0.018)	(0.017)	
Fair health status	0.098	0.052	0.118	0.195	0.078	0.273	0.097	0.048	0.09	0.03	0.078	0.083	0.048
	(0.008)	(0.010)	(0.039)	(0.052)	(0.019)	(0.032)	(0.022)	(0.017)	(0.049)	(0.020)	(0.022)	(0.026)	(0.018)
Poor health status	0.277	0.133	0.145	0.452	0.203	0.535	0.379	0.185	0.197	0.151	0.318	0.271	0.212
	(0.020)	(0.020)	(0.062)	(0.082)	(0.053)	(0.074)	(0.067)	(0.051)	(0.106)	(0.063)	(0.066)	(0.062)	(0.086)
Mean of dependent variable	0.082	0.078	0.150	0.164	0.055	0.158	0.067	0.040	0.080	0.048	0.056	0.082	0.037
Number ofobservations	14530	7942	1588	909	1446	1689	1938	1565	500bb	836	1331	1071	727