Disability and Work in Poland

Tom Hoopengardner

January 2001
DISABILITY AND WORK IN POLAND

Disability Pensions and
Programs to Encourage the Employment of
People with Disabilities

Tom Hoopengardner
Human Development Department
Europe and Central Asia Region
The World Bank
January, 2001
Disability and Work in Poland  
Table of Contents

Table of Contents

Forward

Executive Summary

Policy Issues

Main Text

Section I: Disability in Poland

I. A. Disability Headcount
I. B. Disability Profile
I. C. Disability, Labor Force Participation, and Employment
I. D. Multivariate Statistical Analysis of Disability and Income

Section II: Disability Pensions

II. A. The Aggregate Cost of Disability Pensions
II. B. Incentive effects
II. C. Improving Disability Pensions

Section III: Measures to Increase Employment of People with Disabilities

III. A. Polish Programs
   1. Supported Work Establishments
   2. The National Fund for the Rehabilitation of Disabled Persons (PFRON)
III. B. Flow of Public Funds for Measures to Increase Employment of People with Disabilities
   1. Flow of Public Funds: Supported Work Establishments
   2. Flow of Public Funds: PFRON
III. C. A Critical Analysis of Measures to Increase Employment of People with Disabilities
   1. Accountability for Public Funds
   2. Quota-Levy Systems
   3. The Wage Subsidy Implicit in Poland's Quota-levy System
   4. Incentives
   5. Rewards versus Punishments
   6. Capital Subsidies
   7. Systemic Inefficiencies
   8. The Future of Supported Work Establishments
   9. PFRON's Future
   10. A Proposal for Salvaging the Supported Work Establishment System

Section IV. Concluding Remarks

Bibliography
Forward

The preceding version of this paper circulated in English and Polish for discussion at a round table discussion on January 28, 2000, at the World Bank office in Warsaw. Many participants and other interested persons submitted written comments, and the World Bank then circulated the comments in English and Polish. Most of these materials are available on the IDN website, also. A second round table discussion was held with the National Advisory Council to the Plenipotentiary for Persons with Disabilities on June 6, 2000, and the Council subsequently submitted written comments.

The present version reflects the comments and discussions of the previous versions, but it also adds the results of new research based on sources of data that were not available earlier. The Central Statistical Office (GUS) kindly provided the raw data from the 1996 Health Interview Survey, so that we could produce additional detail about Poland's disability profile. Data from the February 1999 BAEL (Labor Force Survey) made it possible to look more closely at the relationship between disability and household economic variables. Data from the 1998 Household Budget Survey made it possible to compare and contrast ZUS and KRUS disability benefits and beneficiaries, and these comparisons have been included in a companion note (Chlon, 2000).

Disability is an important subject in Poland from the point of view of people with disabilities and also from a societal perspective. When people with disabilities do not participate in the labor force or are unemployed, the economy is denied the benefits of their productivity and creativity. Further, if the costs to the budget of programs designed to help people with disabilities are excessive and inappropriate, they place a burden on taxpayers, especially workers, who are paying to support the programs. Badly designed programs can hurt the workers who support these programs without helping much the intended beneficiaries, and that may be the case in Poland.

This note is part of a broad review of social sectors programs that is being undertaken by the World Bank at the request of, and with the cooperation of, the Government of Poland.

The author wishes to express appreciation to counterparts for their time and patience in discussing these matters. Special thanks are due to the participants in the two round tables on January 28 and June 6, 2000. Emily Andrews launched this work with interviews in October 1999 and an initial draft. Michal Dybula, Dorota Holzer-Zelazewska, Marzena Kulis, Joanna Maselko, Marcin Przybyla, Jan Rutkowski and Irena Topinska made important contributions. This paper was prepared under the supervision of Sector Managers Maureen Lewis and Michal Rutkowski, with the general guidance of Sector and Country Directors, Annette Dixon and Basil Kavalsky. Special thanks also to Krzysztof Hagemejer and Leszek Sibilski, who each read several drafts of the discussion version and made invaluable suggestions. Remaining errors are the fault of the author alone. Please direct comments to: thoopengardner@worldbank.org.
Disability and Work in Poland

Executive Summary

At the request of the Government of Poland, the World Bank is undertaking a broad review of social sectors programs. "Disability and Work in Poland" is one element in this broad review. This study of policies and programs for people with disabilities focuses on workers' disability pensions and programs to encourage the employment of persons with disabilities. It has benefited from round table discussions on January 28 and June 6, 2000, and written comments from interested parties.

Disability Patterns in Poland

(a) The incidence of disability is greater in Poland than in most other countries, even taking into account differences in definitions. One reason is that over one-third of the people of working age who are "legally" disabled are not "biologically" disabled. The age breakdown of people who are "legally" but not "biologically" disabled suggests that the system is being abused as a form of early retirement. Over 12 percent of all men 60-64 years of age and over 11 percent of all women 55-59 years of age have disability certificates even though they do not feel themselves to have disabilities.

(b) As in other countries, disability and age are highly correlated. A very small number of disabilities arise in childhood, but over 40 percent of all people with disabilities are past working age (meaning 65+ for men and 60+ for women). As in all countries, disability is a problem of aging as well one that has an impact on the labor market.

(c) The disability ratio is higher among people with lower levels of education across all age groups. One hypothesis is that lower levels of education lead to higher levels of unemployment, and unemployed workers have used the disability insurance system as a safety valve when they lose (or fail to achieve) eligibility for unemployment benefits. However, analysis based on cross-sectional data from the old voivodships does not support this hypothesis.

(d) Disability has grown much more rapidly in rural than in urban areas in the last dozen years, so the incidence of disability in rural areas is now significantly higher than in urban areas across the age spectrum. Multivariate statistical analysis suggests that the rural-urban disability differential is explained mainly by rural-urban differences in age structure and education. Rural development policy may need to take explicitly into account that 15 percent of the rural adult population have disabilities.

(e) Labor force participation rates for persons with disabilities are rather low, but the unemployment rate is not much higher than for persons without disabilities. The question this raises is why so few working-age people with disabilities are looking for jobs. Only one-quarter of working-age persons with disabilities were working in 1996.

(f) Two-thirds of the people with disabilities who do work are employed by small private enterprises, and in fact 44 percent of them are self-employed.

(g) There is a strong negative correlation between average household income and disability. Disability may be likelier in lower income households, and disability may also increase the likelihood of lower incomes.
Disability and Work in Poland

Disability Insurance

The cost of the disability insurance system in Poland is among the highest in Europe, over 3 percent of GDP, even taking into account that about 30 percent of disability pensioners in Poland are elderly and therefore would not be counted in most other countries. The very high cost of the disability insurance system requires one of the highest contribution (wage tax) rates in Europe. This high cost is partly the consequence of high replacement rates. Although Poland is not an outlier in this respect, many countries have replacement rates much lower than Poland’s. High replacement rates are of concern because of the high cost per beneficiary and because it increases the number of beneficiaries via an "income effect" and via moral hazard.

The ratio of beneficiaries to labor force participants is one of the very highest in Europe (again, even taking into account that many beneficiaries would be classified as old-age pensioners in other countries). It seems that there are so many beneficiaries in Poland because of generous treatment of people with the least serious kinds of disabilities, easy eligibility criteria, and lax enforcement.

There is even evidence that moral hazard has led to corruption involving workers, certifying physicians, and sometimes employers. In a qualitative study on informal payments in the health sector, some people reported "purchasing" sick leave, a disability certificate, or exemption from military service. Sickness benefits are higher than unemployment benefits, and according to some of the respondents, workers who are afraid to lose their job buy a sickness certificate (that can last up to 9 months) to get a higher benefit during their unemployment period. The cost of such certificate may vary but on average it costs about PLN 10 for a day of sick leave. Obviously, a disability certificate is even better, and therefore much more expensive. People reported that the price of a disability certificate is up to PLN 3,000. A patient in the study reported: “One day of leave costs PLN 10. It’s known which doctor writes out such certificates. Everything can be bought, in Walbrzych a disability pension costs PLN 2,000-3,000, but you also have to know someone and be sure.”

Related to the above is payment for military exemption. The same study found evidence of this phenomenon in Gdansk: "I know that in Gdansk you give a doctor PLC 2,000 and say that you want to arrange for military service (to have heart disease)”. Another respondent reported: “When I got conscripted for military service, I organized a second examination in Oliwa [the respondent had already undergone the first examination to define his military "health" category earlier]. The visit took place, the doctor had already been informed, he didn’t even listen to what I had to say, just started to take notes at once”. By paying PLC 2,000 the respondent avoided military service. The respondent estimated that this kind of "matter" currently costs from PLC 3,000 even up to PLC 7,000.

A ZUS inspection early in 2000 confirmed widespread fraud in the sick leave system. ZUS inspected 61,000 cases and discovered that more than one-third of the sick leaves were granted without sufficient grounds. In 16,000 cases, ZUS suspended the payment of sick leave benefits and ordered the employees to return to work. It would be naïve to believe that fraud in the disability system is less than in the sick leave system. Since fraud hurts people with true

Shahriari (2000).
Disability and Work in Poland

Disabilities, the disability community in Poland should encourage similar inspections in the disability system.

Administrative reforms to limit the availability of disability benefits to people who really need them have been implemented starting in 1997, and these reforms may be having a positive effect. In 1998, the number of new disability beneficiaries declined for the first time ever. However, absent further reform, the numbers are likely to start growing again because of industrial restructuring and the aging of the population. It is important to control costs, but of course this means controlling the costs of the disability system and other social benefit systems taken as a whole. There may be little point in financial terms in implementing policies that reduce the number of disability pensioners by increasing the number of old-age pensioners one-for-one. Transparency would improve, but transparency could also be improved with better data management and reporting.

Apart from concerns about costs, the impact of the disability insurance system on people of working age is of policy relevance because it distorts the labor market by creating incentives not to work or not to move up to better-paying jobs.

Measures to increase the employment of persons with disabilities

Given Poland's long and proud history of drawing citizens with disabilities into the labor force, one must approach the reform of present institutions, policies and programs with a certain respect. A cooperative to employ veterans blinded in World War I started in Warsaw in 1919. Over the next 80 years, what started as a cooperative movement evolved into the Supported Work Establishments of today. Poland initiated the world's first quota-levy system in 1920 (also in reaction to the disabilities caused by the war) and other countries followed. As a measure to ease the re-entry of disabled veterans into civilian life, this policy had much to recommend it. However, there have been many lessons of experience over the last eighty years, particularly with respect to disability not related to war-time military service, and it is in Poland's interest to apply those lessons. The goal of reform is not to turn back the clock to before World War I. The goal is to increase the efficiency and effectiveness and improve the financial sustainability of programs to encourage "mainstream" employment of persons with disabilities in the future.

Programs to encourage employment of people with disabilities cost the budget over PLN 3.5 billion (about 0.6 percent of GDP, roughly $875 million) per year. Most of this, an estimated PLN 2.8 billion, comes from special tax treatment of Supported Work Establishments that employ only 300,000 of Poland's 5 million persons with disabilities (of which over 2.5 million are estimated to be of working age). A large portion of these funds cannot be tracked accurately, because it flows from one pocket of the Supported Work Establishments (notional tax obligation) to another (Enterprise Rehabilitation Funds). Money for programs to increase the employment of people with disabilities is also generated by a quota-levy system. Enterprises that fall short of a 6 percent quota for hiring persons with disabilities must pay a levy that depends on the size of the shortfall. Most enterprises don't hire persons with disabilities and pay levies totaling over PLN 700 million per year.

2 Sibilski (1999b) contains a fascinating review of the disability movement in Poland.
3 Supported Work Establishments have at least 40 percent workers with disabilities and meet other requirements.
Disability and Work in Poland

The funding of disability programs is subject to a number of criticisms. It lacks transparency because the funds do not pass through the budget. In some cases, funds are not recorded in the financial statements of public institutions at all. Critics argue that the funds generate benefits for the entrepreneurs who own Supported Work Establishments to a much greater extent than for the persons with disabilities who work there. Also, the funds are earmarked, which means that the amount of money generated bears no particular relationship to needs. In the way of bureaucracies, spending tends to increase in order to exhaust available funds.

The success of the quota-levy system in raising revenue is a measure of its failure to draw persons with disabilities into mainstream employment. Apparently the levy is not sufficient as far as employers are concerned to overcome the disadvantages of hiring persons even with light degree of disability. Employers treat the levy as just another wage tax. Polish policy actually makes hiring persons with disabilities unattractive by mandating special privileges such as restricted work hours and special vacation and sickness leave. These policies may be viewed as protective, but in reality they discriminate against persons with disabilities who may not need them. About 2/3 of people with disabilities who do work are self-employed or work a private enterprises with five workers or less, and which therefore escape most regulation.

Much of the money generated via special tax provisions and the quota-levy system goes for capital subsidies of one kind or another, for example "work place creation" and loans at below-market interest rates. The concept seems to be that more workers with disabilities will be hired to operate additional machinery that is subsidized for this purpose, consistent with a "fixed factor ratios" production function. This concept does not appear relevant in a market economy where capital is substitutable for labor. Quite apart from theoretical arguments against promoting employment by subsidizing capital, it is almost impossible to assure that the capital is used in the fashion intended. In Poland, there is abundant evidence (documented in Supreme Chamber of Audit (NIK) reports) that subsidized capital frequently is improperly diverted away from workers with disabilities.

Judged only by their rapid growth (doubling in two years, 1996-98), Supported Work Establishments appear to be a success. Yet most of their employees with disabilities have the least serious degree of disability, and the ratio of workers with disabilities to workers without disabilities has been declining in recent years. Judged in terms of mainstreaming workers with disabilities into ordinary enterprises, Supported Work Establishments have not achieved success sufficient to justify their cost.

Policy Issues

1. Should the adequacy of disability pensions for people who are completely unable to work be re-evaluated? Pensions for all such citizens should be sufficient to avoid poverty whether beneficiaries have a labor market connection or not. A real test of a disability system is the way that it takes care of those who cannot take care of themselves. Part of the reason for controlling the costs of benefits for people with light degree of disability is to make sure that people with considerable degree of disability are adequately funded.
2. How should Poland reduce the number of disability beneficiaries? Poland has replaced Netherlands as "the sick man of Europe". Measures are being taken to tighten eligibility and enforcement, for example re-examinations and monitoring certifying physicians for patterns of abuse. In the short run, these measures should be pursued aggressively. In the medium term, consideration should be given to eliminating benefits for persons with light degrees of disability (as in many European countries), reducing replacement rates to less than 50 percent, and smoothing out the way that benefits decline as wages increase.

3. Should Poland rely more on a civil rights approach, and less on an economic approach, for encouraging employment of people with disabilities? Relying heavily on economic tools such as the quota-levy system and the special tax provisions for Supported Work Establishments may result in greater costs to the economy, and worse results, than complementing the economic approach with a more aggressive civil rights approach.

4. Should the quota-levy system be continued? How can it be improved? An aggressive civil rights approach could make it possible to reduce the quota or the levy (or even eliminate the quota-levy system entirely). Ending special privileges that discourage employers from hiring people with disabilities (especially while pursuing a more aggressive civil rights approach) would further decrease the necessity to rely on the quota-levy system. Non-differentiated privileges for workers with disabilities who are not at all homogeneous discriminate against workers who don't need those privileges. To the extent that the quota-levy system continues, the proceeds of the quota-levy system could flow into the state budget, and corresponding expenditures be appropriated as part of the normal budget process. As an alternative to the present quota-levy system, it would be possible to provide tax credits, deductions or reductions for companies hiring people with disabilities, and/or for the accommodation necessary for such hiring. This approach would reward enterprises for hiring workers with disabilities rather than punish them for not meeting an unrealistic quota.

5. What should be the future of the Supported Work Establishments? Tax legislation recently signed into law by the President eliminates the corporate income tax exemption for Supported Work Establishments and makes a number of other changes. While this is a start, it falls short of solid public finance practice. Starting immediately, Supported Work Establishments should begin normal tax reporting, even in cases where they are able to claim exemptions that exactly offset their tax liabilities. As soon as possible, all public funds for programs to encourage the employment of persons with disabilities should pass through the budget. Expenditures should be subject to normal budget procedures, meaning that they should compete with other programs for people with disabilities and other worthy programs for public resources via the political process. Remaining special tax arrangements for Supported Work Establishments should be phased out over a three to five year period, after which time they would become ordinary enterprises or revert to not-for-profit cooperatives whose primary reason for existence would be employing persons with a considerable degree of disability.

6. Is the Fund for the Rehabilitation of Persons with Disabilities (PFRON) necessary and desirable? Especially if all public funds for programs to encourage the employment of persons with disabilities flow through the budget, if Supported Work Establishments are converted in due course to ordinary enterprises or not-for-profit cooperatives, and local governments receive subventions for disability programs directly from the state budget,
consideration should be given to eliminating PFRON and placing its (important) residual functions with local governments.

7. *How should analysis to inform the policy debate about disability be developed?* Discussion about disability programs and policies should be informed by an ongoing survey of persons with disabilities similar to the study that was instigated and financed by PFRON and conducted by GUS in 1996. The study should include household economic variables such as income and expenditure as well as the health and legal aspects of disability. A National Actuary Office should be created to monitor all social benefits programs including disability and to make projections under different policy assumptions. (The National Actuary Office would also model all other social benefits.)

8. *What is the way forward?* In Poland, the entrepreneurs who benefit the most from the present system seem to control the policy development process by means of contributions to politicians, influence over political appointments, and other mechanisms. Organizations of people with disabilities and consultative bodies seem weak and ineffectual. The taxpayer interest does not seem well-represented in the public debate. As a consequence, proposals for change are uninspiring. What can be done to enrich and enliven the national debate on programs for people with disabilities?
Disability can be defined as the loss of ability to perform specific social roles or functions (such as work) due to an impairment resulting from a medical condition. In terms of work disability, the functions are those related to employment. As a result, some medical conditions and subsequent impairments are likely to affect the ability to perform certain jobs but not others.

I. A. Disability Headcount

Aarts and De Jong note that “even among the population that is covered by disability insurance, being disabled and being a disability benefit recipient are two contingencies that do not fully overlap. The sizes of the non-overlapping parts — disabled without benefits and non-disabled with benefits — are an indication of the targeting performance of a disability insurance system. Due to the elusiveness of disability these parts will never be empty.”

These problems are visible in the GUS (National Statistics Agency) Health Interview Survey in April 1996. The survey makes it possible to identify three adult groups that one might wish to define as people with disabilities (see figure 17 below): (A) people who indicated that they were certified to receive disability insurance and who also answered questions that show that these people consider themselves to have disabilities; (B) people who consider themselves to have disabilities but who are not certified to receive disability insurance; and (C) people who are certified to receive disability insurance but whose answers indicate that they do not consider themselves to have disabilities. These three groups can be combined to define disability in different ways for different purposes (figure 1).

A + B is the set of people whose answers to the GUS questions show that they think of themselves as having disabilities; GUS calls these people “biologically disabled”. This concept of disability is probably the best one to use for purposes of labor force participation and employment because, like the labor variables, it is survey-based. One-fifth of this group, 2.7 percent out of 13.2 percent for the adult population as a whole (see left-most bar in figure 1), are not certified for disability, i.e. not “legally disabled” in GUS’s terminology. On the face of it,
this fraction seems alarmingly high, because it suggests that many people who should be legally classified as disabled are not, and that the coverage of benefits and programs for people with disabilities may be a problem. The age breakdown in the middle and right-most bars in figure 1 helps to explain this high fraction. Most people in category B, biologically but not legally disabled, are past old-age pension age -- 65 for males and 60 for females. People with disabilities who reach pension age have the right to choose whether to receive an old-age pension, a survivor’s pension, or a disability pension. The formulas that determine the amounts of benefits lead most people with full disabilities to continue collecting disability pensions. However, men with partial disabilities often convert to old-age pensions and women with partial disabilities frequently convert to survivors’ pensions. People who become disabled after they reach old-age pension age tend to continue on old-age pensions, and they have no motive to become legally disabled in order to take advantage of labor programs. Only one-seventh of the people who are working age are biologically but not legally disabled, compared with over one-fifth for people who are past working age.

Table 1 reports reasons why people with biological disabilities only do not have disability certificates. The vast majority have never applied for a certificate, but almost one-third of these people said that they didn’t know how to apply. Especially considering that disability is concentrated among people with low educational attainment (see Sections I.B. and I.D.), it seems possible that greater efforts are needed to explain eligibility rules and procedures simply and clearly.
Disability and Work in Poland

Table 1: Reasons "biologically only" disabled people give for not applying for a disability certificate

Source: Data from GUS Health Interview Survey, 1996

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was no need</td>
<td>38%</td>
</tr>
<tr>
<td>I did not know how to do it</td>
<td>20%</td>
</tr>
<tr>
<td>I have become disabled only recently</td>
<td>11%</td>
</tr>
<tr>
<td>I applied but was refused</td>
<td>10%</td>
</tr>
<tr>
<td>I used to have a certificate, but it was not extended</td>
<td>3%</td>
</tr>
<tr>
<td>Other reasons</td>
<td>10%</td>
</tr>
<tr>
<td>No answer</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

In figure 1, A + C is the set of people who are certified for disability benefits, the “legally disabled”. This concept is useful from the standpoint of benefits. Note that almost one-third of this group, 4.6 percent out of 15.1 percent, are certified for benefits even though they do not regard themselves as disabled. An age breakdown of the people who have disability certificates even though they don't feel themselves to be disabled suggests that they are using disability pensions as a form of early retirement. Over 12 percent of all men 60-64 and over 11 percent of all women 55-59 are "legally" but not "biologically" disabled.

“Legal disability” increased from 11.3 percent of the population 15 years of age and over in 1988 to 14.3 percent in 1996. This increase can be attributed to people who regard themselves as disabled (A in the graph) – the number of people certified as disabled who do not regard themselves as disabled (C in the graph) actually declined between 1988 and 1996. This might be the result of employed people with minor disabilities applying for benefits when they thought they were about to lose their jobs.

A + B + C is the set of people either who are certified for disability or who regard themselves as disabled (or both). This is the concept that GUS uses for comparisons over time; and for breakdowns among population groups. Using this concept, the disability ratio in 1996 was over one-sixth of the adult population. Note that the disability ratio for working age people is much lower than this, as discussed in the following sections.

I. B. Disability Profile

For purposes of benefit programs like disability pensions, it is useful to look at characteristics of the entire adult population of people with disabilities. For purposes of labor programs like the ones financed by PFRON, the State Fund for the Rehabilitation of People with Disabilities, it is necessary to confine the analysis to adults of working age. For simplicity and because of problems of data availability, this note uses males 15-64 and females 15-59 as a proxy for adults of working age. This estimate overstates the work-force because early retirement (before age 65 for males and 60 for females) is not unusual.

---

9 GUS (1997), page 67 (Polish original).
Disability and Work in Poland

Age and gender. Disability is very highly correlated with age. The disability ratio for children less than 15 years of age in Poland was less than 1 percent in 1996. Figure 2a shows that people past working age account for over 40 percent of all people with disabilities in Poland. In many countries, people past working age are not counted among people with disabilities because they are eligible for old age benefits rather than disability benefits. Disability among adults is not entirely a labor issue because to a great extent it is a problem of old age.

Figure 2b shows disability ratios by age and gender. Although the average disability ratio for people past working age is over 40 percent, the ratio for people who are working age is "only" 13 percent. Disability ratios for men and women are about the same until age 50, when they begin rising more rapidly for men.

If one considers premature death as the ultimate disability, the contrast between the genders is even greater because the male mortality disadvantage in Poland leads to a life expectancy differential of almost 10 years, roughly double the differential in other OECD countries. There is a temptation to consider that the only gender dimension of disability is that it is a greater problem for men than for women.

However, there is a second consideration. Disability is like a tax on time. People with disabilities can often do the same things as people without disabilities, but they may require more time. This means that people with disabilities have less discretionary time than people without disabilities. It has been well-documented that, in general, women have less discretionary time than men because they bear greater responsibility for unpaid work that benefits the family -- child and elder care, housekeeping and shopping, for examples. This means that disability imposes a heavier percentage tax on the discretionary time of women with disabilities than men with disabilities. One consequence is that the labor force participation differential between women with and without disabilities is greater than for men (see the labor force section that follows).

Figure 2a: People with Disabilities by Age & Gender, 1996
Percent of Total Population (Source: GUS data)
Disability and Work in Poland

Figure 2b: Disability Ratios by Age and Gender, 1996
Source: GUS data

Education. People with disabilities in Poland (broad definition) have significantly lower educational attainment than people without disabilities. Figure 3 shows that the education differential persists clear across the age spectrum, and it is particularly great for the 20-29 cohort where the unemployment rates are highest.

A number of hypotheses might explain the correlation between low educational attainment and disability:
- It is possible, of course, that better education leads to better health, which reduces the incidence of impairments leading to disability.
- It may also be that people with primary education or less tend to work in occupations in which the risks of occupational injury or disease are greatest.
- The de facto replacement ratio (ratio of disability pension to wage) is highest for individuals nearest the bottom of the income distribution (who tend not to be well-educated). This may entice more people with low educational attainment to try to qualify for disability pensions.
- It seems possible that low educational attainment leads to unemployment, and (since unemployment benefits are available to less than one-quarter of the registered unemployed) unemployment encourages people to apply for disability pensions.
The fourth hypothesis warrants elaboration. The 20-29 age cohort had (and still has) the highest rate of unemployment, and also a high ratio of unemployed who were not eligible for unemployment benefits. It seems possible that there are people in this cohort (and older cohorts as well) who would prefer to work, but if they can't find a job and are ineligible for unemployment benefits, they will apply for disability benefits. Although this hypothesis seems plausible, it has been tested using cross-sectional data from the old voivodships and the results do not support the hypothesis (see Section I.D.).

Location (Rural-Urban). Disability is a more serious problem in rural than in urban areas, and the problem has grown more rapidly in rural than in urban areas. The broad measure of the number of people with disabilities for the whole country grew almost 40 percent between 1988 and 1996, but the growth in rural areas was over 50 percent compared with growth of a little over 30 percent in urban areas (see table 2). Although the rural-urban differential in 1988 was rather small, it had become substantial by 1996.

There are a number of possible explanations for the rural-urban disability differential, for examples: differences in age structures of the rural and urban populations; rural-urban education differences; and differences in administration between ZUS (the workers' pension system) and KRUS (the farmers' pension system).
Table 2: Rural and Urban Disability Ratios in 1988 and 1996
Adults 15+ (thousands or percent)

<table>
<thead>
<tr>
<th></th>
<th>1988</th>
<th></th>
<th>1996</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Disabled '000</td>
<td>Ratio %</td>
<td># of Disabled '000</td>
<td>Ratio %</td>
</tr>
<tr>
<td>Total</td>
<td>3,687</td>
<td>13.0</td>
<td>5,142</td>
<td>17.5</td>
</tr>
<tr>
<td>Rural</td>
<td>1,442</td>
<td>13.4</td>
<td>2,189</td>
<td>20.1</td>
</tr>
<tr>
<td>Urban</td>
<td>2,245</td>
<td>12.8</td>
<td>2,953</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Note: this measure of disability includes the broadest measure of disability, persons with either “legal” or “biological” disabilities or both. This means A + B + C in the foregoing discussion. See figure 1.

The disability ratio might be higher in rural than in urban areas simply because of a cohort effect (disability is associated with age, and the rural population is older than the urban population). Figures 4a and 4b show that this may well be the case. Figure 4a shows that the age distribution of people with disabilities in rural and urban areas appears to be symmetric – in each age group, about the same number of people with disabilities live in rural and urban areas. However, the age distribution of the population is not symmetric – twice as many people live in urban areas. Figure 4b shows the disability ratios for rural and urban locations. For almost every age cohort, the rural disability ratio is higher than the urban, sometimes much higher. For the cohort from 40-49, the ratio is ten percentage points higher. It appears that the rural-urban disability differential is explained in part by the fact that the rural population is older, but also by higher rural disability ratios for each age cohort. Rural disability would be a greater problem than urban disability even if the age structure of the two populations were the same.
question becomes why disability is a greater problem in rural areas than in urban areas even for people the same age.

One possibility is that rural-urban education differences, together with the negative correlation between education and disability, explain part of the age-specific rural-urban disability differential. The following figures show rural and urban disability broken down by educational attainment. Figure 5a shows the education imbalance that exists between rural and urban areas. This imbalance exists both because people in urban areas tend to stay in school longer and also because people in rural areas who do pursue their educations tend to migrate to cities. This graph lends support to the hypothesis that the rural-urban disability differential is caused by in part by education differences.
Figure 5a: Rural and Urban Disability by Educational Attainment
Source: GUS Data

Figure 5b: Disability Ratios by Rural-Urban and Education, 1996
Source: GUS Data

Figure 5b shows that, as expected, disability ratios are negatively correlated with educational attainment in both rural and urban areas, but the differences are not dramatic. To the extent that education contributes to the rural-urban disability differential, it is because educational attainment is higher in urban areas, not because the education effect is different between rural and urban areas.
Since disability pensions for farmers are administered by KRUS, the farmers' pension system, rather than ZUS, the workers' pension system, it is natural to ask whether part of the rural-urban disability differential could be caused by differences between KRUS and ZUS. First, it is essential to appreciate that ZUS operates nationwide, in both rural and urban areas. About half of rural households are covered by ZUS rather than KRUS. A person is only eligible to participate in KRUS if he or she is not eligible for ZUS. If it were somehow easier to qualify for a KRUS disability pension than for a ZUS disability pension, then one would expect that KRUS disability pensioners would tend to be younger than ZUS disability pensioners. Data from the Household Budget Survey for 1998 shows exactly the opposite pattern. As figure 6 shows, KRUS disability pensioners tend to be significantly older than ZUS disability pensioners, suggesting that, if anything, it has tended to be more difficult to qualify for a KRUS disability pension than for a ZUS disability pension.10

Multivariate statistical analysis (see below) seems to confirm that rural-urban age differences (together with the positive correlation between disability and age) and rural-urban education differences (together with the negative correlation between education and disability) account for much of the rural-urban disability differential. Whatever the causes, rural development policy in Poland may need to take explicitly into account that disability is a serious constraint.

Nature of Impairment. In Poland, the greatest number of people with disabilities have serious problems with movement, as shown in figure 7 below. Reported problems with

10 If KRUS old-age pensioners were younger than ZUS old-age pensioners, one might think that relatively more KRUS than ZUS beneficiaries choose disability pensions rather than old-age pensions, and this accounts for the fact that KRUS disability pensioners are older. However, the data show that KRUS old-age pensioners are also significantly older than ZUS old-age pensioners.1
movement seem to grow steadily across the age groups, while reported problems with hearing and vision seem to be relatively constant across age groups until age 55, when they begin to grow with age. There were no dramatic rural-urban differences in this pattern.

There is a certain danger of over-emphasizing nature of impairment. The "medical approach" to disability that characterized the 19th century focused almost exclusively on causes and cures by types of impairment. The legacy is that people with disabilities remain divided into separate factions determined by medical categories. To the extent that the most serious problem faced by people with disabilities is societal ignorance and bigotry, this division is unfortunate and counterproductive.

**Figure 7: Nature of Impairment**

Source: GUS Data

100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%

- Hearing
- Vision
- Movement

**Mobility.** WHO defines as immobile a person whose living space is limited to his/her home, or at most to the nearest surroundings of the home. The GUS report (table 11) reveals that 37 percent of the disabled are immobile, of which 3 percent bedridden, 8 percent mobility limited to home, and 26 percent mobility limited to surroundings of home. There do not seem to be systematic rural-urban differences.

**Chronic illness.** People with disabilities suffer chronic diseases to a greater extent than other people (GUS report, page 52 of the Polish original). The most common are bone diseases (including spine diseases), chronic arthropathy, high blood pressure and ischaemic heart disease, neurosis, and atheromatosis. People with disabilities are likely to experience mental diseases with 21 times the frequency of people without disabilities, 15 times for cancer, 10 times for epilepsy, 7 times for TB, 6.5 times for atheromatosis (atherosclerosis), 5 times more often for ischaemic heart disease, and 4.5 times for the consequences of accidents.
Disability and Work in Poland

I. C. Disability, Labor Force Participation, and Employment

As indicated in a previous section, for simplicity and for reasons of data availability, it is convenient to use the population ages 15-64 (males) and 15-59 (females) as a proxy for the working age population. Using this proxy and the broad definition of disability (A + B + C in figure 1), table 3 shows relationships among labor force and employment variables for men and women with and without disabilities.

Table 3: Labor Force Participation and Employment

<table>
<thead>
<tr>
<th></th>
<th>People with disabilities</th>
<th>People without disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men 15-64</td>
<td>Women 15-59</td>
</tr>
<tr>
<td>Labor Force Participation Ratio</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Ratio of Employed to Total</td>
<td>28</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Data from GUS Health Interview Study, 1996

The labor force participation rate is the number of people who are either working or seeking work (and who are ready and able to work) divided by the number of people of working age. The labor force participation rate for men with disabilities is only 40 percent of the labor force participation rate for men without disabilities, and the rate for women is only 35 percent as much. The unemployment rate is the number of people who are in the labor force, meaning that they are ready and able to work. Unemployment rates for men and women with disabilities are not much different than the national averages.

Disability seems to keep women out of the labor force to a greater extent that men. Unfortunately, available data does not permit in-depth exploration for the reasons for this phenomenon. One can speculate that women engage in unpaid work in the home to a greater extent than men, and the disability "time tax" leaves too little time for paid work also.

Poland has traditionally divided people with disabilities into three categories: considerable, moderate and light. Unsurprisingly, the more serious the disability, the less likely is someone to participate in the labor force. This is at least in part attributable to age differences among the disability categories. People with considerable disabilities are on average 8 years older than people with moderate disabilities and 10 years older than people with light disabilities. Two-thirds of people with considerable disabilities are past working age (men 65+ and women 60+) In contrast, the majority of adults with moderate or light disabilities are working age.

For people who are working age (defined in this case as 18-64 years of age), the Labor Force Survey (BAEL) shows that the labor force participation rate is 7 percent for people with considerable disabilities, 19 percent for people with moderate disabilities, and 29 percent for

---

11 "On the basis of currently available data it is difficult to draw any conclusions about the causes of occupational passiveness of the great majority of women with disabilities, or about help with finding jobs and training offered by government institutions and non-government organizations." Balcerzak-Paradowska, Kostrubiec and Lisowska (1999).
people with light disabilities. In framing policies to encourage the employment of people with disabilities, it is important to bear in mind the age differences among the disability categories and the differences in labor force participation rates.

The question is why the labor force participation rate is so low for people with disabilities. Undoubtedly, part of the answer is that Poland's system of employer incentives (see Section III) is not sufficient to overcome employer prejudices. Part of the answer is also that it is difficult for people with disabilities to search for jobs and to travel to and from work because of architectural obstacles. However, it may also be the case that labor force participation by people with disabilities is so low because of their own attitudes and preconceived notions about work. Poland's policies have tended to focus on benefits for people who don't work (Section II) and incentives for employers (Section III). The low labor force participation rate and relatively low unemployment rate suggest that additional research is required about why people with disabilities don't enter the labor force. It may be desirable to design new policies to help people with disabilities overcome their own prejudices about work.

Looking specifically at people with disabilities who do work, BAEL data show that they earn less than workers without disabilities. Yet the data also show that they are less educated and that they work fewer hours -- 29 hours versus 40. About 44 percent of disabled workers have part-time jobs, compared with only 5 percent of workers without disabilities. Given that they are less educated and work shorter hours than workers without disabilities, the lower earnings are not necessarily evidence of discrimination in wages. However, the incidence of temporary employment is significantly higher among workers with disabilities than among workers without disabilities (13 percent versus 4 percent). There may be discrimination in access to permanent jobs.

Most workers with disabilities are employed at small, private enterprises, and in fact 44 percent are self-employed. Two-thirds of workers with disabilities work in enterprises with five workers or less. In contrast, only one-third of workers without disabilities work in enterprises with five workers or less.

I. D. Multivariate Statistical Analysis of Disability and Income

The previous sections considered one or two variables at a time for ease of exposition. It is also useful to conduct multivariate statistical analyses in order to capture the interaction among variables and to isolate the impact of economic variables such as income and regional variables such as income and unemployment.

Table 4 summarizes the results of a logistic regression model based on data from the 1996 GUS Health Interview Survey. The model estimates the impact of various factors on the probability that people of labor force age (meaning men 15-64 and women 15-59) have disabilities (meaning that they that they are both "legally" and "biologically" disabled).
Table 4: Logistic Analysis of Disability in Poland
(Men 15-64 and Women 15-59)
Dependent variable: person with disabilities (meaning both "legally" and "biologically" disabled)

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Odds Ratio</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.24**</td>
<td>Men are 24 percent more likely than women to have disabilities, other things equal.</td>
</tr>
<tr>
<td>Location:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.00</td>
<td>The relationship between rural or urban location and disability is not statistically significant once other variables like age and education are taken into account.</td>
</tr>
<tr>
<td>Rural</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>Marital status:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>1.00</td>
<td>Married people are only 60 percent as likely as single people to have disabilities. It may be that married people enjoy better health generally; but it may also be that people with disabilities find it more difficult to marry or to remain married.</td>
</tr>
<tr>
<td>Single</td>
<td>0.60**</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td>Older people are much more likely than younger people to have disabilities. Someone 55-59 years of age is twice as likely to have disabilities as someone 45-49 years of age and ten times as likely to have disabilities as someone 30-34 years of age.</td>
</tr>
<tr>
<td>15-19</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>2.78**</td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>4.20**</td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td>6.15**</td>
<td></td>
</tr>
<tr>
<td>35-39</td>
<td>9.43**</td>
<td></td>
</tr>
<tr>
<td>40-44</td>
<td>15.64**</td>
<td></td>
</tr>
<tr>
<td>45-49</td>
<td>29.52**</td>
<td></td>
</tr>
<tr>
<td>50-54</td>
<td>49.36**</td>
<td></td>
</tr>
<tr>
<td>55-59</td>
<td>63.67**</td>
<td></td>
</tr>
<tr>
<td>60-64</td>
<td>70.17**</td>
<td></td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td>There is a highly significant association between education and disability. People with secondary or higher educations are much less likely to have disabilities than people with basic vocational educations or primary educations or less, other things equal.</td>
</tr>
<tr>
<td>Higher</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>General secondary</td>
<td>1.87**</td>
<td></td>
</tr>
<tr>
<td>Secondary vocational</td>
<td>1.83**</td>
<td></td>
</tr>
<tr>
<td>Basic vocational</td>
<td>2.42**</td>
<td></td>
</tr>
<tr>
<td>Primary or less</td>
<td>3.24**</td>
<td></td>
</tr>
<tr>
<td>Average income per household member</td>
<td></td>
<td>There is a strong, statistically significant association between average household income and disability. There may be dual causality. Disability may be likelier in lower income households, and disability may also increase the likelihood of lower incomes.</td>
</tr>
<tr>
<td>PLN &lt;200</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>PLN 200-299</td>
<td>0.91 *</td>
<td></td>
</tr>
<tr>
<td>PLN 300-399</td>
<td>0.69**</td>
<td></td>
</tr>
<tr>
<td>PLN 400-499</td>
<td>0.52**</td>
<td></td>
</tr>
<tr>
<td>PLN 500-599</td>
<td>0.69**</td>
<td></td>
</tr>
<tr>
<td>PLN 600+</td>
<td>0.44**</td>
<td></td>
</tr>
</tbody>
</table>
Disability and Work in Poland

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Odds Ratio</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate in voivodship</td>
<td></td>
<td>If people tend to substitute disability benefits for unemployment benefits, then one would expect higher likelihood of disability in regions where unemployment is higher. The results do not support this hypothesis.</td>
</tr>
<tr>
<td>&lt;11.5 percent</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>11.5-16.7 percent</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>16.8-22.1 percent</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>22.2-27.5 percent</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>GDP per capita in voivodship</td>
<td></td>
<td>Except in the lowest income voivodships, people in higher income regions tend to have disabilities with less frequency than in lower income regions.</td>
</tr>
<tr>
<td>&lt;PLN 9453.5</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>PLN 9454-13003</td>
<td>1.36**</td>
<td></td>
</tr>
<tr>
<td>PLN 13004-16552.5</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>PLN 16553-20102</td>
<td>0.66**</td>
<td></td>
</tr>
</tbody>
</table>

** represents statistical significance at the 1 percent confidence level
* represents statistical significance at the 5 percent confidence level

Source: Data from GUS Health Interview Survey, 1996

Section II: Disability Pensions

In Poland, issues of disability are addressed in a wide variety of ways. There are health programs to prevent impairments leading to disability and accelerate rehabilitation. There are education and training programs to reduce the consequences of impairments. There are social assistance programs, for example a nursing allowance to help families that care for a family member with disabilities. About 5,000 non-governmental organizations support people with disabilities and foster attitudinal changes in the greater society. Two kinds of programs bear most directly on disability and work, disability pensions (considered in this section), and policies and programs to encourage the employment of people with disabilities (Section III).

Social Insurance for workers in Poland is under the auspices of the Social Insurance Agency (ZUS) which provides pensions for old-age retirement, disability, and survivors. Social insurance for farmers is under the auspices of the farmers' pension system (KRUS). The focus of the present draft discussion note is workers, although KRUS figures are included when necessary to maintain comparability with other countries. Details about KRUS disability pensions, and comparisons between KRUS and ZUS, may be found in Section 3.3 of Chlon (2000).

The Polish social insurance system has provided pensions both for those totally disabled (with or without an allowance for care) and for those who qualify as at least 50 percent disabled according to their qualifications. The disability insurance system has been modified by recent social security legislation. It is important to bear in mind that data that are available now relate to the previous system, and that the situation is likely to change somewhat as the impact of the new changes becomes felt.
Disability and Work in Poland

The number of beneficiaries grew rapidly in the 1990s, from 9.6 percent of the adult population in 1988 to 14.3 percent in 1996. Total expenditures for disability pensions in 1998 reached PLN 19 billion for 2.7 million beneficiaries. The size of the program and its rapid growth are important because of cost and sustainability; and because of the incentive effects it may have on labor force participation and work effort.

II. A. The Aggregate Cost of Disability Pensions

It is desirable to discuss the costs of Poland’s disability pensions scheme with the help of international comparisons. Yet international comparisons are difficult and complex because Polish data differ from data presented by other countries in four respects:

- Contributions to ZUS from the wage tax are supplemented by about 20 percent from the budget. The budget contribution for KRUS is about 94 percent. In other countries, disability funds are in balance or they are subsidized from the budget to a smaller extent.
- Poland gives disability pensioners the option to continue as disability pensioners after they reach old-age pension age or to convert to old-age pensions. In other countries, conversion to old-age pensions is automatic. About 23 percent of ZUS’s disability pensioners are women 60 years of age or older and men 65 years of age or older. Over half of KRUS disability pensioners are past retirement age.
- When disability or old-age pensioners die, their survivors may be eligible for survivors’ pensions. In Poland, these survivors’ pensions (both survivors of disability beneficiaries and survivors of old-age beneficiaries) are included in the data for disability pensions. Survivors’ pensions account for about 35 percent of the total of disability pensions plus survivors’ pensions. (Most survivors’ pensioners, about 68 percent, are past the age for old-age pensions, so there is overlap between the two categories.) In other countries, there is a separate contribution rate for survivors’ pensions and the data can be seen independently of either disability or old-age pensions.
- Poland has separate disability and old-age pensions schemes for farmers, administered by KRUS. Other countries don’t have separate farmers’ pensions schemes.

In the discussion that follows, we have attempted to correct for these factors as appropriate. It seems better to offer comparisons that are approximate than no comparisons at all.

In the aggregate, disability pensions in Poland are more costly than in many other European countries – over four times higher than in Germany (as a fraction of GDP), for example (see figure 8).

12 The ostensible figure for Poland is 4.3 percent, 3.5 percent for ZUS and 0.8 percent for KRUS. However, these figures include benefits for people who would be counted as old-age pensioners in other countries. The figure shown takes this into account.
The high aggregate cost of disability pensions in Poland has required a high payroll tax rate (figure 9). Quite apart from the problems listed in footnote 15, it is difficult to make international comparisons of contribution rates for disability insurance because the tax bases differ and it is sometimes unclear whether reported figures relate to statutory contribution rates or to "actuals" that are affected by compliance and other factors. Poland’s contribution rate, even scaled down to reflect reporting differences with other countries, is one of the highest in Europe. We estimate Poland’s “adjusted” rate at 7.3 percent, while most European countries are less than 6 percent.

---

13 The statutory contribution rate for ZUS is 13 percent. However, this 13 percent covers people who would be counted as old age pensioners and also people who would be considered survivors’ pensioners (both survivors of disability pensioners and survivors of old age pensioners) in other countries. Taking these factors into account, the internationally comparable ZUS contribution rate is about 7.3 percent. It is tempting to add something back in for KRUS and for the state budget contribution (a supplement of about one-fifth). However, the point of looking at the contribution rate is to measure the distortionary effect of this important element of the wage tax. KRUS (which is for all practical purposes noncontributory) and the state budget contribution are not germane. They were picked up in the ratio of disability benefits to GDP, which measures a different dimension of the cost of the disability pension scheme than the contribution rate.
Figure 9: Comparative Contribution Rates, Selected Eastern European and OECD Countries, 1994
Source: Andrews (1999)

The high cost is attributable both to high replacement rates (the ratio of benefits to past wages), and to an even greater extent to a large number of beneficiaries relative to other countries. Replacement rates for disability pensions in Poland are relatively high as a proportion of average wages. The average benefit for complete disability amounted to around 65 percent of the average wage in 1998, while partial disability benefits averaged 47 percent. It is difficult to make international comparisons because replacement rates can depend on the degree of disability, with full disability compensated at a higher rate than partial disability; and because legislated replacement rates can be affected substantially by years of service requirements and other factors. With this caution, one can say that Poland’s replacement rates are among the highest in the OECD, but not so high that Poland is an outlier with respect to replacement rates. Italy, Netherlands, Spain and Sweden all have had replacement rates of over 70 percent of earnings for single wage-earners who are totally disabled. But in contrast, Canada, Japan, the UK and US have had replacement rates of under 30 percent.
The replacement rate in Poland is a concern for several reasons. Obviously, a higher replacement rate means that it costs more to provide benefits to a given number of beneficiaries. However, a high replacement rate increases the number of beneficiaries in two ways. First, it distorts labor force participation and work effort (see the section on incentives below). Second, it increases moral hazard. Moral hazard in this context means that people who should not be eligible for benefits succeed somehow to qualify. There is a considerable amount of anecdotal evidence that workers, employers and certifying physicians sometimes collude in order to invent impairments or exaggerate the seriousness of disability. Generous benefits and lax control led to a similar moral hazard problem in Netherlands (see text box 1).

There are two ways to decrease moral hazard, co-insurance and monitoring the risk behavior of the insured. In the context of disability insurance, co-insurance means the sacrifice that a worker makes by accepting a disability pension rather than continuing to earn a wage. Poland's high replacement rate means that co-insurance does less to decrease moral hazard than if the replacement rate were, say, less than 50 percent.

Most of the high cost of the Polish disability insurance system in contrast with other OECD countries is explained by the fact that there are so many beneficiaries. One can estimate the number of ZUS disability benefit recipients per thousand labor force participants at about 153 per thousand in recent years. This figure compares with about 100 in both Hungary and Latvia (two countries that had disability systems similar to Poland's prior to the transition), and it is about the same as Netherlands at its worst point in the early 1990's. In contrast, Germany had only 66 disability recipients per thousand and Switzerland had 44. It appears that there are so many beneficiaries because of both design and implementation factors.

Box 1: Moral Hazard in the Netherlands

"Under the adverse labour market conditions that prevailed in the 1970s and early 1980s, redundant Dutch workers preferred disability over unemployment benefits that have limited duration and end in means-tested public assistance. Likewise, employers preferred to use disability insurance as an instrument to adapt their manpower to changing economic conditions because it was a silent route and administratively easier than openly terminating an employment contract. And, finally, administrators and professionals (doctors and vocational experts) at the social insurance agencies had an easier, conflict-avoiding, job if they awarded everyone who claimed to be disabled a full benefit. ... As long as those politically responsible were reluctant to intervene and confront the parties involved with the financial consequences of their self-centred behaviour, programme growth remained uncontrollable." De Jong (1999), page 5.

---

14 See Aarts and De Jong (1999), page 7, for a rich discussion of moral hazard in the context of disability insurance.
15 Looking at the total number of ZUS disability beneficiaries of all ages puts this figure at 2.7 million, more than 200 per thousand. We have scaled this figure back by 23 percent to reflect that disability pensions don't automatically turn into old-age pensions when beneficiaries reach pension age, as in other countries.
16 The usual cautions about international comparisons apply. The differences between Poland and other countries are larger than can be explained by conceptual and definitional differences.
A design factor that encouraged so many beneficiaries has been the generous treatment of persons with the least serious kinds of disabilities. Until 1997, disability was defined in terms of three categories, depending on health loss, not necessarily loss of capacity to work. Individuals in Category I, with the most serious disabilities, were not able to look after themselves without the help of other people and therefore were unable to work under normal conditions. Individuals in Group II were unable to work under normal conditions. Individuals in Group III were suffering from a long-term medical problem even if work capacity was unimpaired, or had lost part of their working capacity. Any of these three categories could be classified as permanent or temporary. Permanent disabilities did not require re-examination, but temporary disabilities did. People in Group III were entitled to disability benefits and they also counted toward qualification of an enterprise as a Supported Work Establishment and toward the quota in the quota-levy system.

The Act of 27 August 1997 on Occupational Rehabilitation and Employment of Disabled Persons created three degrees of disability, "considerable", "moderate" and "light". These degrees of disability are based on capacity to work, not just health. Individuals with "considerable" disability are incapable of taking up employment, but may be capable of employment in a supported work establishment or an occupational activation establishment. People with a "considerable" degree of disability require regular or long-term care or help from another person. Individuals with "moderate" disability have impairments ("infringed efficiency of the organism") but are capable of employment at a work post adapted to their needs and require only partial or temporary help from other persons. People with "light" disability have impairments, but they are capable of employment or education and do not require the help of another person to fulfill social roles. As before, disabilities may be classified as permanent or temporary.

The 1997 law maps the old three categories into the new degrees of disability, but, to reiterate, the critical element is now loss of work capacity rather than just health. The same definitions are used by ZUS and PFRON (sometimes with different names), but they are applied to different populations. ZUS is concerned with people whose attachment to the labor force qualifies them for disability insurance, while PFRON is concerned with all people with disabilities, whether they are eligible for ZUS benefits or not.

"Considerable" and "moderate" disability are together called "full incapacity", and "light" disability is also called "partial incapacity". These expressions are unfortunate, since they seem to focus on inability rather than ability. In a market economy, especially with a large service sector, only a very small fraction of the working age population has disabilities so severe as to prevent employment of some kind. In fact, the suggestion that persons with "considerable" disability should lose benefits if they worked at all was discussed and rejected because working is a path to rehabilitation. Persons with "light" disability remain eligible for disability insurance benefits and they also continue to count in the quota and Supported Work Establishment systems.

An implementation factor that may have inflated the numbers of persons certified for disability is that eligibility criteria may not have been strictly enforced, especially in the early

17 Chlon, Gora and Rutkowski (1999), page 72.
1990’s, when applications for certificates of disability jumped. This helps to explain why the number of beneficiaries grew so rapidly in the early 1990’s.

In reaction to the rapid growth of disability beneficiaries and the high cost of benefits, the disability pension system has been modified significantly in terms of administrative procedures and eligibility criteria. For example, the disability qualification process has been tightened, with personal accountability assigned to the accrediting physician. The burden of proof of permanent disability is now on the claimant rather than on ZUS. The distinction between permanent and temporary disability continues for persons with both full incapacity and partial incapacity, and ZUS has started re-examinations of disability beneficiaries to test for rehabilitation. All of these steps could have a significant impact on continued expansion of the disability rolls.

In 1998, the number of new disability beneficiaries declined by 10 percent as compared with the number of new disability beneficiaries in 1997, the first decline ever. This likely reflects the new eligibility procedures and criteria, although it may also be true that the situation is normalizing after the surge of new applicants in the early 1990’s.

### Box 2: Is Poland Replacing Netherlands as the “Sick Man of Europe”?^a

In the 1970s, Netherlands fell victim to generous, easily accessible cash benefit schemes, a high minimum wage and extensive job projection. The minimum wage and social benefits rose faster than prices between 1972 and 1980. Employment growth was sluggish due to stagflation (following the first oil crisis), but labor supply grew rapidly, fueled by the baby boom and increasing female labor force participation. “A threat of massive unemployment was countered by using a new, and unique, disability programme introduced in 1967.”

Larger numbers of cash benefit recipients required higher contribution rates, which must be compensated by higher productivity demands for a given wage. The number of workers who don’t meet the productivity standards increases. They seek shelter in unemployment and disability schemes, increasing stress on cash benefit schemes, fueling a new round of increases in contribution rates.

The statistics presented in figures 8 and 9 suggest that Poland is replacing Netherlands as the Sick Man of Europe. In Netherlands, the crisis was precipitated by the oil crisis and coming to age of the baby boomers. In Poland, could a crisis be precipitated by entry into the EU and direct competition from foreign workers?

^aThe parts of this text box that are about Netherlands, and the direct quote, are from de Jong (1999).

Absent further reform, the future financial situation of the disability insurance program is a source of concern (see text box 2 on Netherlands). Although the number of new beneficiaries dropped in 1998, the numbers are likely to resume growing for several reasons. Restructuring of industries such as the coal industry may bring on new disability insurance applicants. The aging of the population will lead to a higher proportion of the population with disabilities. This
demographic factor is almost as important as it has been for the future of old-age pensions, because disability is so highly correlated with age. Further, increases in the retirement age are likely to add new claimants to the disability rolls. Finally, as a consequence of reform of the old-age pension system, old-age pensions are likely to become somewhat less attractive relative to disability pensions than in the past, meaning that more people with disabilities who reach pension age will choose to continue their disability pensions rather than convert to old-age or survivors' pensions. This would hurt the disability pension system and help the old-age pension system. Given these economic and demographic pressures, Poland’s disability system seems especially vulnerable to the kind of labor market crisis that Netherlands experienced in the 1970s and 80s. Obviously, what counts is not the integrity of the disability system viewed in isolation, but rather the strength and resiliency of the disability, sickness, unemployment and old-age systems taken together. Strengthening these systems to serve well the needs of a market economy depends as much on political factors as on devising. Technical solutions (see text box 3).

II. B. Incentive effects

Even well-designed systems reduce incentives to work somewhat via income and substitution effects. The income effect is that workers who receive a benefit can choose to "spend" the benefit on both more goods and more leisure (by working less). The income effect in Poland may be substantial because the initial replacement rates are relatively high -- 70 percent of the wage. This may lead people to work less, or even not to work at all, simply because they can afford not to work.

The substitution effect occurs when the benefit formula causes benefits to decline as the remuneration for present employment increases. In this regard, Poland’s system has features that may magnify disincentive effects. Disability pensioners who work can earn up to 70 percent of the average wage without penalty. If they earn between 70 and 130 percent of the average wage, their benefit is reduced by 24 percent of their “base amount” (which is determined by wage history at the time the benefit begins, and which is indexed to prices thereafter). If a person with a disability earns more than 130 percent of the average wage, the benefit stops. This step-function creates two “notches” in the benefit function. There are “break-even” points beyond which it is not attractive to increase earnings. Figure 10 below attempts to describe this rather complicated system.

Box 3: Buying Votes with Cash Benefits

A theory elaborated by Persson and Tabellini says that if the median voter turns from net-contributor into a net-recipient, the political majority will vote for policies that promote higher benefits at the expense of the net-contributors who are in the political minority. After this shift, elections can only be won by parties that reinforce the position of the benefit-receiving majority. This sets up a vicious circle that has the potential to cripple the economy by placing greater and greater burden for production on a smaller and smaller fraction of the working age population.

*Paraphrased from de Jong (1999).

---

18 This will be true "other things equal". However, it will also be true that old-age pensioners will have more contributory years when the pension age rises, and this may offset in part the decrease in attractiveness of old-age versus disability pensions.
The graph shows that in certain income ranges, depending on the relationship between the benefit amount, the base amount, and the average wage, a worker may actually come out ahead by accepting a lower wage. Apart from discouraging greater work effort, this may also encourage corruption, with the employer and employee agreeing to manipulate the reported wage in order to avoid a reduction in the benefit amount. In either case, the result is a greater burden on the taxpayer and less money for those who really need it.

As PFRON describes the situation, "It is a well-known fact that disabled employees are underprivileged and long-standing legal regulations are sometimes abused. Wages may be fixed on such a level so as not to deprive the employees of the right to their disability pensions (in such cases remuneration is roughly equal to the minimum wage...): under these circumstances social expenditures incurred by the state are by no means lower."\[^{20}\]

II. C. Improving Disability Pensions

Clearly, part of the reason the disability pension system costs so much is because of weaknesses of administration, especially easy qualification. The numbers of disability pensions currently in force is excessive compared to other transition and OECD countries, even taking into account that many beneficiaries would be classified as old-age pensioners in other countries. The goal is to reduce benefits for people who don't really need them so that benefits for people

\[^{19}\] Wage data are likely to show that the wages of workers with disabilities are clustered just below 0.7 and 1.3 times the average wage. Overall, the average wage for workers with disabilities is somewhat less than the average wage for the entire work force. See Sibiński (1999a).

\[^{20}\] PFRON (1999), paragraph 15.
with the most serious disabilities, whether they have been labor force participants or not, can receive the care and financial support that they need. The most basic goal of any disability system must be to help people who cannot help themselves. The goal is also to reduce the drag on the economy caused by unnecessary benefits and taxes so that a dynamic, growing labor market can provide opportunities for people with disabilities to be self-sufficient.

In the short term, it is important to accelerate the changes that are already in progress: qualification for disability based on work capacity, not health; and re-examination of those with temporary disabilities. In the short run, re-examination should also be required of those with certified permanent disabilities of considerable, moderate and light degree, starting with the youngest first. The youngest have the greatest potential for rehabilitation and the greatest payoff to rehabilitation. According to Prins\textsuperscript{21}, re-examination in both Australia and the Netherlands of the youngest age groups resulted in substantial drops in disability rates. If people whose disabilities have been classified as considerable or moderate become reclassified as light, they should be given the same opportunities for training as other newly disabled. Full pensions should also be available to all severely disabled persons even if they have been disabled from birth. This will forestall the temptation to create fictitious jobs for those who really are unable to work. Also in the short run, classification of remaining capacity to work should be based on ability to pursue gainful employment without reference to past training, and not solely on a worker's formal "qualifications".

In the medium term, a variety of measures to bring the aggregate costs of disability pensions more into line with the rest of Europe should be considered. Partial disability insurance (meaning benefits for persons with light disability, the former Category III) may be a luxury that Poland cannot afford at this time. A gradual tightening of standards could phase out partial disability pensions over a three to five year period. While it may not be possible abruptly to remove current recipients with light disabilities from the benefit roles, re-examinations starting with youngest first may reduce their numbers significantly.

Especially in light of measures to reduce the number of beneficiaries, the entire training and counseling framework needs to be re-evaluated and possibly redesigned. In some countries, occupational training programs equip people for jobs that no longer exist, or provide training that is so narrowly focused that it quickly becomes obsolete in a dynamic market economy. It would therefore be useful to undertake an evaluation of present training programs in order to determine what effect they actually have on employability one or three years later. Consideration could be given to a demand-based system based on vouchers, with competitive bidding for training opportunities by NGOs. Provided that it can be demonstrated to be effective, training and job counseling should be provided to those who should no longer remain on the benefit roles, and especially to those who lose disability certification. Persons with light disabilities should be provided rehabilitation assistance for a limited time period -- for the most part no more than one year -- instead of pensions. Training could be focused on specific occupations but should also include improving general education as higher standards are necessary in a modern flexible market economy. It has not been possible in the course of preparing this note to assess the effectiveness and efficiency of Poland's occupational training system in returning people with disabilities to the labor force. However, the initial impression is that the steps needed to enable

\textsuperscript{21} Prins (1999).
reentry into the labor market are underfunded. Out of the PFRON budget, only 0.4 percent of funding is dedicated to training and retraining of disabled people at the Powiat Employment Agencies. Further, there appears to be no clear process of referral by ZUS for new beneficiaries to training and job counseling programs.

Also in the medium term, the incentive effects of both the replacement rate and the structure of disability benefits should be reassessed in view of the very high cost of the system. The high replacement rate increases moral hazard, one of the biggest problems with universal public disability insurance schemes. Consideration should be given to reducing the replacement rate to less than 50 percent, and the contribution rate should be decreased accordingly. If the recommendation to reduce the replacement rate is viewed in isolation, it is likely to encounter opposition from labor unions. Yet one of the consequences of the high replacement rate is Poland’s high wage tax. The state can only give to people what it has taken from them. In Netherlands, labor unions and employers were able to consider both the benefit and tax sides of the agreement. Labor agreed to reduce wage and benefit demands in return for lower taxes (see text box 4), and as a result, Netherlands has had one of the more dynamic economies and labor markets in Europe.

The way that pensions decline as earnings increase (the “notch” problem -- see figure 10) should also be reassessed using household survey and labor force survey data. An alternative approach is to phase out the benefit gradually, for example in the income range from 50 percent of the average wage to 150 percent of the average wage. Past 50 percent of the average wage, the benefit would decline by 10 percent for each extra 10 percent of the average wage earned, up to 150 percent of the average wage when the benefit would be zero. This approach removes the “notches”. The worker always benefits from a higher wage. The choice of a phase-out range is a policy variable. Should a worker who can earn the average wage also receive any disability benefit at all? This kind of question should be reconsidered in light of the extremely high cost of the disability pension system.

As in other countries all over the world, the aging of the Polish population is likely to strain the disability insurance system and other social programs. The strain could be ameliorated by creating a demographic reserve for disability payments similar to the one in place for old-age pensions. This reserve could be funded initially by keeping the disability insurance contribution rate constant and accumulating the savings resulting from tighter eligibility criteria, stricter enforcement, and other measures (for example lower replacement rate). Using the savings in this way might temper public opposition to reducing the current number of beneficiaries. The monies would still be used for disability, but in the future, when they will be needed, rather than in the present.
Box 4: Dutch Measures to Restore the Vitality of the Labor Market and the Sustainability of Social Benefits

In the Netherlands, the excesses of the 1970s led to the Wassenaar Agreement, a social compact between the Dutch federation of labour unions and employers' organizations: wage cost moderation; tax reduction; reduction in full-time work hours from 40 to 38 per week. The minimum wage, cash benefits and government sector wages were nominally frozen in 1982 and 1983, and cut in 1984 even though prices continued rising. In 1985, statutory before-tax replacement rates for sickness benefits, disability benefits, and unemployment insurance were cut from 80 to 70 percent of earnings. Persistent long-term unemployment emerged and the number of working age benefit recipients increased (see table), but average benefits declined in real terms. Male labor force participation stopped falling and female labor force participation increased rapidly. Employment growth was concentrated on part-time work. The Wassenaar Agreement can be considered a success, especially in contrast to other European welfare states.

Even so, there was so much stress in the system that the number of cash benefit recipients continued to increase and unemployment disguised as disability and early retirement kept growing. Since August 1993, eligibility standards and the process for continued eligibility have been dramatically tightened. The impact is now becoming evident in the data (see table A below.)

Table A: Netherlands Reverses a Decades-Long Trend

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit Expenditures as Percent of GDP</td>
<td>10.8</td>
<td>26.4</td>
<td>25.8</td>
<td>23.5</td>
</tr>
<tr>
<td>Working Age Benefit Recipients per 100 Workers</td>
<td>22.0</td>
<td>30.9</td>
<td>41.8</td>
<td>35.3</td>
</tr>
<tr>
<td>Real Average Annual Benefit Amount (1970 = 100)</td>
<td>100</td>
<td>150</td>
<td>127</td>
<td>119</td>
</tr>
</tbody>
</table>

"The Dutch disability experience illustrates how lenient administration of a generous benefit system created a social and financial burden that takes decades to reduce to reasonable proportions."

The system to provide additional care for those unable to take care of themselves should be revisited as well. For example, the current assumption that all pensioners over age 75 require personal care is clearly inappropriate. Further, the system of provision of durable medical equipment and other cash or in-kind benefits should also be revisited to create a system that is well directed towards individual need. People who can pay for these services should be encourage to do so.
Disability and Work in Poland

There are certain other administrative measures that would encourage greater transparency. For example, data on numbers of beneficiaries and value of benefits should be presented separately for disability pensioners past retirement age even if they came on the rolls at an earlier age, and old-age and disability survivors’ pensions should be presented separately as well. This would make it easier to make international comparisons and to track changes over time (since the demographic structure will be changing so rapidly). We see this more as a data management and reporting problem than as a structural problem -- whether individuals past retirement age receive old-age pensions (with disability supplements in some cases) or disability pensions may make very little difference in the total cost of old-age and disability pensions combined or in the combined contribution rate of the two systems.

Finally, the steps being taken to remove fraud from the system of disability certification should continue with strong outside supervision. The perception of physician complicity in disability fraud is widespread, so efforts to monitor certification patterns at the physician level may produce good results.

Section III: Measures to Increase Employment of People with Disabilities

Labor force participation rates for people with disabilities are low (table 3), and consequently a small fraction of the working age population with disabilities is employed. Poland is fairly typical of other countries in this respect. Most countries have adopted a combination of two approaches to deal with this problem. They have provided anti-discrimination protection for people with disabilities under the law ("civil rights approach"), and they have provided economic incentives to employers to hire people with disabilities ("economic approach").

The dichotomy between these approaches should not be overemphasized, but it is nevertheless useful to contrast them because Poland has concentrated on the economic approach, providing incentives for employers to hire people with disabilities primarily through the tax system. Yet employment of people with disabilities is not exclusively an economic phenomenon. It is also a problem of prejudices and attitudes.

"An important factor of improvement is also the removal of the psychological barriers existing both in the mind of fit persons as well as disabled persons. A change of attitude of society is needed, so that people can understand that disabled persons have the same right to a normal life as fit persons and that they should be helped in exercising this right. Of no lesser importance is that the persons concerned believe in this themselves."

The United States is the foremost example of the civil rights approach. The Americans with Disabilities Act (ADA) of 1990, together with the Civil Rights Act of 1964 and the Rehabilitation Act of 1973, inter alia prohibits discrimination in the employment of persons with disabilities and requires employers to accommodate workers with disabilities (at reasonable cost), for example by providing special phones for the hearing impaired, wheelchair accessibility of offices, or computers for the visually impaired. Prior to its enactment, studies

---

22 See Elwan (1999), page 9 and following.
were made showing that a majority of disabilities could be accommodated with a minimum of cost. While critics initially did not believe that accommodation could be relatively inexpensive, the implementation of the ADA has not resulted in much employer dissention on this score.

Poland must now re-evaluate whether relying almost exclusively on economic incentives has achieved the desired goal of increasing opportunities for people with disabilities. Poland may need to move toward a more balanced approach combining "moral suasion" and legal compulsion with economic incentives.

III. A. Polish Programs

The two main programs designed to encourage the employment of people with disabilities, Supported Work Establishments and the quota-levy system, originated just after World War I. A cooperative for blinded veterans was created in 1919, and the cooperative movement led eventually to the current Supported Work Establishments. Poland instituted the first quota-levy system in the world in 1920, with returning veterans with disabilities as the target beneficiary group.24 Although programs to encourage the employment of people with disabilities have this long tradition, it is now appropriate to evaluate whether these programs should be replaced or modified to reflect the lessons of experience in Poland and other countries in the last few decades.

1. Supported Work Establishments

In 1991 the former system of sheltered workshop cooperatives was transformed into a mixture of coops and private-sector businesses called Supported Work Establishments. In order to qualify for Supported Work Establishment status, a business must employ 40 percent or more workers with disabilities, of which 10 percent must be severely disabled. The business must meet other specific requirements for providing a suitable work environment such as purchasing appropriate equipment, providing training, access to medical treatment, and rehabilitation programs. It must also create an internal Enterprise Rehabilitation Fund which is used to finance these responsibilities. The Supported Work Establishments, in turn, enjoy generous tax advantages and additional financial support from PFRON, as described below.

As of December 31, 1998, there were 3,096 Supported Work Establishments, of which 505 were cooperatives. Private-sector Supported Work Establishments employed 226,955 workers with disabilities and cooperatives another 84,905. Fueled by the tax policies described below, the number of Supported Work Establishments has grown rapidly in recent years, doubling between end-1996 and end-1998. About 56 percent of the employees of Supported Work Establishments at the end of 1998 had disabilities, but their share has been declining. About 2/3 of the workers with disabilities at Supported Work Establishments are in the least serious category of disability.

24 Quota-levy systems quickly followed in Austria, France, Germany and Italy. Today, most developed countries (except Australia, Canada, UK and US) have some form of quota-levy system.
A rather small fraction of Poles with disabilities work at Supported Work Establishments or cooperatives (roughly 330,000 out of 5 million), and it is unclear how much workers with disabilities who do work there benefit in this system. It is not surprising that there is a continuing debate over the appropriateness of the substantial benefits the SWE’s receive in comparison to their contribution to the welfare and employment of people with disabilities.

2. The National Fund for the Rehabilitation of Disabled Persons (PFRON)

The National Fund for the Rehabilitation of Disabled Persons (PFRON) was created in 1991 as an extra-budgetary fund to support the employment and rehabilitation of people with disabilities. The main functions of PFRON are assisting in the financing of: employing disabled persons, improving access, various rehabilitation programs, and other subsidies and investments of projects having to do with disabled persons. PFRON is financed directly from payments made by enterprises. Some of the payments are levies paid under the quota-levy system by enterprises that don't employ at least 6 percent workers with disabilities. Supported Work Establishments make other payments to PFRON instead of paying certain taxes to the national treasury. Creating a fund outside the purview of the national budget was seen as a measure to avoid competing with other programs for budget during a period of austerity. Most of PFRON’s funding for social, occupational, and therapeutic rehabilitation programs flows through regional powiat governments and is used to support both child and adult programs.

III. B. Flow of Public Funds for Measures to Increase Employment of People with Disabilities

Poland's Supported Work Establishments and quota-levy system are separate conceptually, yet they are related because their sources and uses of funds are entangled via PFRON, the National Fund for the Rehabilitation of People with Disabilities.

Although neither Supported Work Establishments nor PFRON receive money directly from the state budget, it is extremely important to understand that they are financed by public money that doesn't happen to pass through the budget. In economic terms, levies that are paid by enterprises to PFRON instead of to the national treasury are public funds because the levies are generated by the legal authority of the state and in economic terms the result is exactly the same as if the levies were paid from enterprises to the national treasury and then channelled back to PFRON. Enterprise rehabilitation funds are another example of public funds for programs for people with disabilities. Supported Work Establishments deposit money into enterprise rehabilitation funds instead of paying taxes. These are public funds because they diminish public revenues and they require higher taxes from other taxpayers than would be necessary otherwise. The result is exactly the same as if Supported Work Establishments paid the taxes and the money was then deposited in Enterprise Rehabilitation Funds by the state instead of by the enterprises themselves.

The diagram below attempts to summarize the flow of public funds used to support programs for people with disabilities and their employment.
Figure 11: Flow of Public Funds for Programs to Encourage the Employment of People with Disabilities, 1999

*Enterprise Rehabilitation Funds
Disability and Work in Poland

1. Flow of Public Funds: Supported Work Establishments

   a. Revenues

   Supported Work Establishments provide funds for disability programs through an internal tax diversion system from the establishment to Enterprise Rehabilitation Funds internal to each Supported Work Establishment. In addition to these moneys, Supported Work Establishments benefit through pure tax exemptions, and this must be considered when calculating the total sum spent on improving the employment of people with disabilities.

   Supported Work Establishments do not pay income tax on behalf of their employees. Instead, 90 percent of the income tax due on people with disabilities employed at Supported Work Establishments goes directly into their Enterprise Rehabilitation Funds, and the remaining 10 percent goes to PFRON. The total amount remaining in all Enterprise Rehabilitation Funds in 1999 is estimated at PLN 1.35 million. Beginning in 2000, this personal income tax exemption applies only to the employees of Supported Work Establishments, while those who operate their own businesses or who are employers in civil associations pay the full income tax.

   Beginning in the year 2000, after Supported Work Establishments pay their VAT, the Tax Office refunds to the employer all or part of the payment as follows: three times the minimum wage for each employee with considerable disability; two times the minimum wage for each employee with moderate disability; and one minimum wage for each employee with slight disability. (Through the end of 1999, Supported Work Establishments did not pay the VAT to the state budget. Rather, after retaining approximately PLN 1500 per worker with disabilities, the establishment paid the rest to PFRON. In 1999, the declared payments to PFRON totaled PLN 429 million.)

   Supported Work Establishments are exempt from donation and inheritance tax, agricultural and forestry tax, means-of-transport tax and property taxes, including when they rent to other businesses. They are also “free riders” on the Fund of Guaranteed Employees Benefits and the Labor Fund. The state budget and PFRON pay the ZUS (social insurance contributions) of Supported Work Establishment employees. These funds are impossible to estimate, as they are never declared in any public accounting system.

   b. Expenditures

   The Enterprise Rehabilitation Fund of each Supported Work Establishment is responsible for providing programs and improving conditions for the disabled workers at that enterprise. The types of activities in which the Enterprise Rehabilitation Funds must engage are outlined by law (such as fitting proper equipment, providing additional training, instruction, and other programs). Each fund is supposed to submit a report of its spending, and is susceptible to an audit. In fact, neither the details of how the money is actually spent nor the true total amount are monitored systematically and therefore they cannot be analyzed. The value of this source of public money for disability programs is well in excess of PLN 1 billion. Public money is placed in private hands for a public purpose, but with inadequate monitoring, accountability or safeguards.
2. Flow of Public Funds: PFRON

As mentioned above PFRON co-finances the employment of persons with disabilities and various other rehabilitation programs. In 1999 PFRON’s revenues totaled PLN 1.66 billion and expenditures PLN 1.79 billion.

a. Revenues

PFRON has three main sources of public revenue: quota-levy fines and income tax diversions from work establishments, VAT surplus payments, and other fees and interest earned.

Table 5: PFRON Revenues during 1999 PLN ‘000

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levies from enterprises</td>
<td>1,088,909</td>
</tr>
<tr>
<td>VAT surplus payments</td>
<td>429,015</td>
</tr>
<tr>
<td>Interest from late payments</td>
<td>20,050</td>
</tr>
<tr>
<td>Other interest and resources</td>
<td>128,436</td>
</tr>
<tr>
<td>State budget</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,666,410</strong></td>
</tr>
</tbody>
</table>

i. Quota-levy System. All employers with over 25 employees must pay a penalty to PFRON if less than 6 percent of their workforce has disabilities. The penalty for failing to meet the quota is equal to one half of one average wage for each employee with disabilities less than 6 percent. In addition to being a major source of revenue, this system is simultaneously meant as an incentive for employers to hire workers with disabilities. In 1999 quota-levy fees accounted for 52 percent of PFRON’s total revenue at PLN 870 million.

ii. Income tax diversion from Supported Work Establishments. As mentioned above, Supported Work Establishments do not pay the income tax on disabled employees. Instead, 90 percent of this money is diverted into the Enterprise Rehabilitation Fund and 10 percent to PFRON. In 1999, these payments constituted 9% of PFRON’s total revenues (PLN 150 million).

iii. VAT exemption surplus. The VAT exemption surplus is another source of revenue originating in the Supported Work Establishments, totaling 429 million PLN (26% of total revenues). Supported Work Establishments do not pay the VAT to the central government, instead, they keep an amount equal to three times the lowest remuneration (set at 650 PLN) for each full time disabled employee. The difference between this amount and the remaining VAT total is paid to PFRON.

iv. Other sources. Remaining revenues include returns on investments, dividends, fines for businesses in which an accident or occupational illness caused an employee to become disabled, and half...
Disability and Work in Poland

of the exemption of income tax on disabled employees in work establishments hiring over 7 percent disabled persons. These accounted for the remaining 13 percent of PFRON’s budget.

b. Expenditures

PFRON’s expenditures are divided between social and occupational rehabilitation tasks administered both through its own branches and through regional powiat governments. In 1999, expenditures totaled PLN 1.79 billion, divided between subsidies, investments and current costs. About 43 percent of total PFRON spending is channeled through the Powiat level, which in turn administers 75 percent of the moneys for all rehabilitation programs. The main PFRON office and branches are mostly responsible for financing social insurance contributions due from disabled persons employed in Supported Work Establishments, and other investments such as loans to individuals or businesses involved with disability. Table 6 outlines the major spending categories during 1999, combining both spending through the main office, branches and the powiats.

Table 6: PFRON Expenditures During 1999 PLN ‘000

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subsidies</strong></td>
<td></td>
</tr>
<tr>
<td>Occupational Rehabilitation</td>
<td>727,030</td>
</tr>
<tr>
<td>Social and Therapeutic Rehab.</td>
<td>269,198</td>
</tr>
<tr>
<td><strong>Investments</strong></td>
<td></td>
</tr>
<tr>
<td>Investment Subsidies</td>
<td>515,242</td>
</tr>
<tr>
<td><strong>Current costs</strong></td>
<td></td>
</tr>
<tr>
<td>Offices and Branches</td>
<td>55,968</td>
</tr>
<tr>
<td>Cancellation of loans and payments</td>
<td>203,857</td>
</tr>
<tr>
<td>Other costs</td>
<td>14,095</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,785,390</td>
</tr>
</tbody>
</table>

Key areas that comprise most of PFRON’s spending are described below.

i. Social Insurance Contributions. One of PFRON’s largest single expenditure items is the contribution made to ZUS on behalf of persons with disabilities employed by Supported Work Establishments or those who are considerably or moderately disabled and employed in establishments with less than 25 employees. In 1999, this totaled PLN 275 million and covered both old age and sickness insurance.

ii. Subsidies and Subventions to Supported Work Establishment. PFRON provides extra support directly to Supported Work Establishments for specific programs. These include subventions, co-financing training for disabled employees, the protection of existing work
Disability and Work in Poland

places, and partial refund of wages for mentally ill employees and those with epilepsy. The total amount transferred to Supported Work Establishments for these purposes in 1999 was PLN 289 million.

iii. Work Post Creation. In 1999, PLN 356 million was dedicated to the creation of new work places and maintenance of threatened work posts. The average cost of creating a new work post in the open labor market was PLN 23,150 and in the protected market PLN 20,695. The costs of protecting a threatened work post included the purchase of furnishings and training people with disabilities.

iv. Elimination of Barriers. Another area of spending is toward the elimination of architectural barriers and urban-planning in public and private buildings, communication and transport. In 1999, PLN 69 million was devoted to this purpose.

v. Current Office and Branch Costs. In 1999, PFRON employed on average 766 people in the main office and 16 voivodship branches. The costs of remuneration, benefits for employees, taxes and building maintenance totaled PLN 56 million. Other financial and operational costs along with loan forgiveness and extraordinary losses accounted for PLN 218 million, for a total expenditure of PLN 274 million in this category.

III.C. A Critical Analysis of Measures to Increase Employment of People with Disabilities

1. Accountability for Public Funds

The most glaring problem facing the current system is the inability to track the flow of funds. Government authorities, the disability community, and the general public cannot determine exactly the cost to the budget of the tax diversion. The NIK and other agencies responsible for monitoring the use of public funds cannot cross-check expenditures against revenues of the Enterprise Rehabilitation Funds to make sure that the funds diverted there really are benefiting people with disabilities.

Further, the amount of the revenue generated through the quota-levy and tax exemption systems is independent of the actual needs of disability programs. The sources are like artesian wells that pump large amounts of revenue directly to disability programs with no budget process or budgetary competition with other programs that benefit people with disabilities or other needy social groups. Ultimately, these revenues benefit a small fraction of the total population of people with disabilities and their employers.

The clearest, most straightforward way to manage funds for programs to encourage employment of workers with disabilities is to pass everything through the state budget. This would mean that Supported Work Establishments paid the corporate profits tax, VAT and other taxes exactly like other profit-making enterprises. Expenditures of public funds to encourage employment of workers with disabilities would then be appropriated as part of the normal budget process, and perhaps channeled through the powiats and voivodships. The amounts appropriated
Disability and Work in Poland

might be higher or lower than the amounts of the tax diversion. If exemptions continue, they could show as a subtraction from the tax liability on the tax return.

At the national level, there is a disconnect between the amount of revenues generated and the corresponding needs. This is even more true at the level of individual Supported Work Establishments. The enterprises that benefit the most from tax diversions are the ones that are the most profitable, and that therefore need help the least. The enterprises that make little or no profit, and in particular the cooperatives devoted to employing people with serious disabilities, do not benefit much from tax diversions, but they may be the most worthy of public support.

2. Quota-Levy Systems

Quota-levy systems still exist in over half of the EU countries, but other countries are moving away from them. The UK abandoned its quota system and Netherlands gave up on a planned system. Portugal considered but decided against a quota system, and Ireland and Belgium have limited their systems to the public sector. Germany and France reformed existing systems.

Instead, countries in Europe and elsewhere are relying more on anti-discrimination legislation. The flagship for this approach is the US Americans with Disabilities Act of 1990 (together with earlier legislation on civil rights and disability). Australia's Disability Discrimination Act of 1993 outlaws all discrimination on the grounds of disability. England's Disability Discrimination Act of 1995 makes it illegal to discriminate against people with disabilities in employment and commerce. Austria, Germany, and Finland have all amended their constitutions to prohibit discrimination on the grounds of disability.25

The economic incentives and civil rights approaches are based on different philosophies, but at least in principle they should complement each other. With proper coordination, each has the potential to make the other more effective.

Comments on this point in the preceding version of this paper were somewhat divided. Some reviewers were in favor of strengthening Poland's legislation in order to empower persons with disabilities to enforce their rights, but not necessarily at the expense of the economic incentives approach. Others, however, seemed to feel that there was an unbreakable link between greater reliance on a human rights approach and less reliance on an economic incentives approach. Some reviewers apparently felt that, since they favor great reliance on an economic incentives approach, they could not support a stronger human rights approach. This is not an "either/or" choice. A strengthened human rights approach is not somehow dependent on reducing economic incentives. Stronger legislation protecting the rights of people with disabilities is in Poland's interest no matter what else Poland does.

25The material in these paragraphs draws heavily on Metts (2000).
3. The Wage Subsidy Implicit in Poland's Quota-levy System

Poland’s quota-levy system for hiring workers with disabilities in theory provides a wage subsidy for those workers. In effect, if an employer is under the quota, this system acts as a subsidy of one-half of one average wage for each additional worker with disabilities who is hired. If a worker can be hired at not much more than half of the average wage, the net cost to the employer is not much more than zero. This may explain why the workers with disabilities that are employed in the open market tend to be low-wage workers. Note also that if an enterprise does succeed in reaching the quota, the implicit subsidy to hiring more workers with disabilities stops.

A wage subsidy may be an appropriate way to level the playing field for workers whose disabilities reduce their productivity as compared with workers without disabilities. Yet the argument in favor of a wage subsidy extends only to making up the productivity differential, not to reimbursing the entire wage of the worker with disabilities. The particular wage subsidy seems to have been designed in a way that encourages Supported Work Establishments to hire minimally disabled, minimum wage workers. This does not serve well the objective of "mainstreaming" the hiring of workers with disabilities, and it acts as a disincentive for workers with disabilities to improve themselves.

4. Incentives

Most employers with more than 25 workers do not achieve the 6 percent quota, with a majority not employing any workers with disabilities at all. It seems that employers consider the levy to be just another wage tax that adds another 3 percent to the cost of labor. This means that the levy doesn’t induce employers to hire workers with disabilities instead of workers who don’t have disabilities; rather, like any wage tax, it encourages employers to substitute other factors of production for workers without disabilities. A policy that is intended to be good for the employment of workers with disabilities is instead bad for the employment of workers without disabilities.

Given the fact that quota levies do not seem to be effective in increasing the number of people with disabilities employed, the reasons why employers are reluctant to hire people with disabilities must be addressed. One cost of hiring persons with disability is accommodation. Currently, PFRON pays for accommodation in some circumstances but the costs nonetheless appear to be high. An alternative civil rights approach is described earlier. A second reason that employers seem to avoid hiring workers with disabilities appears to be the considerable privileges that employers must provide workers. Currently, legislation mandates reduced hours, extra sick leave, and extra maternity leave for workers with disabilities. But these very protective mandates may be just the reason why employers do not hire people with disabilities. The costs and aggravation of dealing with these worker entitlements appear to be greater than the cost of the PFRON levy.

One way to eliminate this perverse incentive is to remove the privileges and give people with disabilities the opportunity to compete in the labor market. While it may be necessary to
pay some disabled workers less if their profitability to the company is less, their wages can be supplemented by disability pensions that phase out gradually as their wage increases. Further, the gains of integration into the economy will undoubtedly offset the loss of privileges. Elimination of privileges could be accompanied by a program of reasonable accommodation either as a requirement following the ADA or with the option of deducting the cost of the accommodation as a business expense or tax credit up to a certain maximum. Yet while expensive retrofitting of office access ought not to be charged to the Government, reasonable accommodation should be made.

While some groups representing people with disabilities may object to the removal of privileges, others will welcome this change as it is likely to open up employment in the general economy. Thus, government will need to engage in dialogue with the population to explain this change. For this reason, and others described below, it is important to package these various policy changes to ensure that the benefits and costs are understood. For example, if greater opportunities for education and training are provided to newly disabled workers to help them reenter the labor market, these improvements should be understood as more than offsetting any losses resulting from the elimination of privileges.

It seems possible that the purpose of the various financial mechanisms described here is not merely to offset a productivity differential but also to overcome the prejudices of employers. The question then is whether financial incentives are the best way to solve the problem, or whether a more direct approach would not be an expansion of the campaign to educate employers and the general public, in part via a strengthened civil rights approach as discussed earlier.

5. Rewards versus Punishments

An alternative to the use of quotas would be the development of a policy of reward rather than punishment – punishment now being the levy or fine for not employing people with disabilities for up to 6 percent of the work force. A policy of rewards, in conjunction with the abolition of privileges, could be designed which would provide tax credits, deductions, or reductions for companies hiring people with disabilities and/or for the accommodation necessary for such hiring. Such a program would require phasing in, of course, to ensure adequate financing for disability pensions before the other cost-reduction measures related to ZUS expenditures took hold.

6. Capital Subsidies

Much of the money spent by the Enterprise Rehabilitation Funds and PFRON goes for capital subsidies of one kind or another: "work place creation"; directed, subsidized credit; and loan forgiveness are examples. The idea seems to be that capital/labor ratios are fixed, so the way to assure greater employment is to encourage capital formation by subsidizing capital. In a market economy, factor ratios are flexible, and capital subsidies may mean that enterprise managers use less labor and more capital. To take a trivial example, if the same value of output
Disability and Work in Poland

can be produced with five workers with disabilities using seven units of capital or, alternatively, seven workers with disabilities using five units of capital, a subsidy on capital will, other things equal, encourage managers to hire fewer people with disabilities. Poland's emergence as a market economy requires a fundamental reconsideration of the motives for subsidizing capital and the best tools for intervening in the labor market.

One of the ways in which PFRON-financed programs attempt to encourage employers to hire workers with disabilities is "work place creation". In a centrally planned economy, it was appealing to think of additions to employment in terms of "work place creation". The idea was that to employ an additional worker it was necessary to physically create a place for the new worker to work and tools and machines for this new worker to use. There was excess demand for output, so the additional production resulting from more capital and labor took care of itself.

The "work place creation" concept was applied to the employment of workers with disabilities, too, and this concept continues to be reflected in legislation and in programs of directed credit for Supported Work Establishments that are managed by PFRON. However, the "work place creation" concept has now become an anachronism in Poland. This very basic concept of economic philosophy must be re-examined in light of the needs and operations of a market economy.

In the market economy that Poland has become, the demand for labor is derived from the demand for goods and services. Input ratios aren't fixed, rather there are trade-offs between labor and capital and for that matter among different kinds of labor. The appropriate way to increase the employment of workers with disabilities is no longer "work place creation", it is to help workers with disabilities fairly compete for jobs with other workers through education and training; physical rehabilitation and health care; prostheses and appliances like hearing aids and eye glasses; "accommodation" meaning things like wheelchair ramps and bathrooms that are suited to people with disabilities; wage subsidies where justified; and subsidies for the incremental cost of special equipment that workers with disabilities might need.

Consistent with the "work place creation" concept, PFRON seems to reimburse all the capital costs associated with a new worker with disabilities, not only the incremental costs associated with the disability. Even if this system were not subject to abuse, this would be excessive. However, the system is subject to tremendous abuse. According to the NIK control of Supported Work Establishments (NIK, 1999a), enterprises tend to misrepresent their investment expenditures in order to exploit this very generous subsidy. Even under the best enforcement conditions possible, it is difficult to imagine that profit-seeking entrepreneurs will not find ways to "redefine" normal investments as part of "work place creation" for workers with disabilities. This increases the burden on the budget without benefiting workers with disabilities. The beneficiary is the entrepreneur, not the workers with disabilities.

Other PFRON programs subsidize capital investment via subsidized interest and loan forgiveness. In many countries and many different settings, the World Bank has learned that the credit obstacle to groups that are outside the commercial credit market isn't the interest rate, it is access to the market. In other words, there may be a case to be made for directed credit, but not subsidized credit. Subsidized credit encourages investments that don't meet a market test; it is
extremely difficult to confine subsidized credit to the uses for which it is intended; and the availability of credit at less than market rates encourages corruption. Debt forgiveness undercut the use of credit as a policy instrument. Frequent debt forgiveness raises questions about whether credit was the appropriate instrument in the first place, and it creates the expectation that a loan isn't really a loan at all, but rather a disguised grant. The possibility of all of these kinds of capital subsidies encourages corruption, and it makes it very difficult to avoid the appearance of corruption even when none is present.

PFRON also finances or subsidizes loans directly to people with disabilities, and this seems to be a direct way to encourage employment of people with disabilities. Although there is an argument for directed credit, it doesn't follow that the credit should be at less than market rates.

7. Systemic Inefficiencies

The current system and the manner in which it combines the efforts of Supported Work Establishments, PFRON, and regional governments is susceptible to many problems. There is no overall coordination or specific mission that is shared by all players involved. To the contrary, Supported Work Establishments and PFRON might be driven by completely different goals than people with disabilities themselves. On the other hand, it may be the case that the efforts of the Supported Work Establishments and PFRON are redundant to a degree if they both, for example, aim to provide job related training such as computer skills to disabled employees. The inability to track all funds also makes the system more vulnerable to not only cheating, but additionally the inability to catch other problems or inefficiencies. It thus becomes increasingly difficult to assess any overlaps and gaps in the delivery of programs and benefits.

Finally, many of the benefits received by persons with disabilities as a result of PFRON's actions are on an individual basis. There are inherent inefficiencies in this approach that should be recognized as when, for example, PFRON creates work spaces one at a time versus implementing a single policy that makes it easier for all employers to hire disabled persons.

8. The Future of Supported Work Establishments

The development of Supported Work Establishments, while understandable as a transition from sheltered workshops, may not be a desirable program in the longer term. The problems resulting from uniting private enterprise with social programs in this way are arguably outweighing possible benefits. As these Supported Work Establishments become more successful, they will drain the supply of labor of people with disabilities from the general economy. This leads to the segregation of people with disabilities rather than their integration into the population at large. It also leads to increased dependency on the Supported Work Establishments rather than freedom of choice across the entire labor market.

The exception might be for non-profit (NGO) sheltered workshops for people with severe disabilities.
These problems would exist even if the system worked perfectly, but it does not. It is not exceptional for governments in other countries to "contract out" to the private sector responsibility for performing various social services. In such cases, the money originates in the budget, a contract for performing the service is normally awarded through a competitive process, the entity performing the service is motivated to perform the service well, and clients and the government evaluate the quality and efficiency of the service.

In contrast, the funds for the Enterprise Rehabilitation Funds of the Supported Work Establishments originate with the establishments themselves and never enter the budgets of any public entity. These funds cannot in practical terms be monitored. The establishments each have a small monopoly on the Rehabilitation Funds. The establishments are motivated primarily not by the need to serve workers with disabilities well, but rather to make a profit using all of the resources available. Most Supported Work Establishments treat Rehabilitation Funds as an ordinary part of working capital.\(^27\)

The Supported Work Establishment program is not in the best interests of people with disabilities and it is not cost effective. A plan should be developed to phase-out the tax advantages of the Supported Work Establishments, or to convert them into not-for-profit cooperatives, over a period of three-five years while other reforms are phased in simultaneously. Further, Government should consider disability legislation similar to the Americans with Disabilities Act, which requires employers to provide accommodation to employees with disabilities at reasonable cost, or England's Disability Discrimination Act of 1995, which makes it illegal to discriminate in employment and commerce.

9. PFRON's Future

If the Supported Work Establishments are phased out or converted to cooperatives, consideration should be given to replacing PFRON with direct appropriations to powiats and voivodships for disability programs, perhaps together with a Presidential Commission on disability or a strengthened Office of the Plenipotentiary for Persons with disabilities. The Commission or Office would pursue programs like the Program of Actions for Persons with Disabilities and their Integration with Society and enforce a parallel civil rights approach to dissolving obstacles to hiring people with disabilities, of course in cooperation with the Ministry of Justice.

10. A Proposal for Salvaging the Supported Work Establishment System

In order for any system to work well over a long period, it must have the capacity for continuous evaluation and renewal. In Poland, the entrepreneurs who benefit the most from the present system seem to control the policy development process by means of contributions to politicians, influence over political appointments, and other mechanisms. Organizations of people with disabilities and bodies like the National Consultation Council for People with

\(^{27}\) The NIK reports listed in the bibliography document the poor performance of the Enterprise Rehabilitation Funds.
Disability and Work in Poland

Disabilities seem weak and ineffectual. The taxpayer interest does not seem well-represented in the public debate by the Ministry of Finance, employers groups, labor unions, or anyone else. As a consequence, proposals for change are uninspiring. They seem to propose paint and wallpaper when a new structure is needed.

For example, a proposal has been made that would replace the present "Supported Work Establishment" designation with a complicated system of definitions depending on the share of an enterprise's labor force that is disabled. The proposed wage subsidy would be a function not only of the number of workers with disabilities hired, but also the percentage hired. In other words, when an enterprise hired more workers with disabilities and moved up a category, its subsidy would increase because of the incremental workers, but also because the workers with disabilities already employed would be subsidized more heavily. The goal seems to be to encourage enterprises to hire workers with more serious disabilities. However, the "double impact" of the proposal is likely to result in more polarization in the labor market, with workers with disabilities all gravitating to enterprises with many workers with disabilities already. This seems contrary to the "mainstreaming" goal.

The proposal contradicts the general principle that benefits should compensate enterprises for the extra costs that result from hiring people with disabilities. Some kinds of costs are proportionate to the number of workers employed. For example, if a work station must be especially equipped for a worker, then two specially equipped work stations are needed for two workers. Other kinds of costs do not increase proportionately with the number of workers. For example, a worker who uses a wheelchair may need a ramp. But two workers don't require two ramps, there are economies of scale. It is difficult to think of costs that increase more rapidly than the number of workers with disabilities. The proposal creates unjustified profits for enterprises, it doesn't merely compensate them for extra costs.

The proposal creates an incentive to hire more workers with disabilities, but it also creates an incentive to fire workers who do not have disabilities or to transfer them to sister enterprises that do not hire workers with disabilities at all. A firm that employs 100 workers, of which 10 with disabilities, would qualify as "Category D". By firing 80 workers who do not have disabilities and contracting with another firm for the labor that the 80 workers provided, or by transferring the 80 workers to a sister enterprise under the same ownership, the enterprise would qualify as "Category A". Nothing in the amended law would prevent the sister enterprise from existing only on paper -- the 80 workers could continue to work in the same premises in the same way. Yet it is much more advantageous to qualify as Category A than Category D.

In the proposed system, as in the present system, subsidies would go to enterprises, not to people with disabilities. This specifically means that money doesn't follow people with disabilities. Suppose two enterprises each employ 20 workers. Enterprise X employs 2 workers with disabilities and therefore qualifies as Category D and Enterprise Y employs 4 workers with disabilities and therefore qualifies as Category C. Suppose a worker with disabilities moves

---

28 One is reminded of the cascade effect from the theory of effective protection in international trade.
29 If special equipment could be used on two or three shifts instead of only one, then obviously two or three people with disabilities could share the same equipment. However, Polish legislation discourages work outside the day shift.
from Enterprise Y to Enterprise X, so there are 3 people with disabilities at each enterprise. The total subsidy to Enterprises X and Y (or the average subsidy per worker) declines. The effect is exaggerated when a worker with disabilities moves to an enterprise that doesn't employ other workers with disabilities. Yet a stated policy goal is to move workers with disabilities to "main stream" enterprises.

Under the proposal, the quota of employment of persons with disabilities would be calculated by applying weights for different degrees of disability: 1.5 for considerable disability, 1.25 for moderate disability, and 1.0 for slight disability. A criticism of the existing system is that it has resulted in hiring disproportionately people who have only slight disabilities. Yet, under the proposed amendments, it would be possible to qualify as Category A-D without hiring any persons at all with considerable or moderate disabilities.

It is unclear whether the same weights would also be applied to the quota-levy system. If these weights apply to the quota-levy system, it would increase the incentive for all firms to hire persons with considerable and moderate disabilities. An enterprise would reduce its levy by 40.65 percent of the average wage by hiring one more person with slight disabilities, but 50.8 percent of the average wage by hiring one more person with moderate disabilities and 61.0 percent of the average wage by hiring one more person with considerable disabilities. This would be an improvement over the present system.

The idea of differentiating between people with slight disabilities on the one hand and people with moderate or considerable disabilities on the other is an attractive one. However, the difference between 1.0 and 1.25 doesn't seem to be very great. We continue to believe that, as a medium-term goal, people with only slight disabilities should not figure in the quota-levy system and the disability pension system at all.

Under the new proposal, special privileges for workers with disabilities would remain. As discussed in the section on incentives, these privileges give employers reasons not to hire workers with disabilities. In the proposed amendments, a new privilege would be added. A proposed provision says that a person with a disability shall be eligible for severance pay irrespective of the length of working time. This would give employers another reason not to hire workers with disabilities in the first place.

The proposal would perpetuate the system in which money generated by tax exemptions for supported work establishments is diverted to enterprise rehabilitation funds in the same enterprises. We propose instead that these funds be pooled and managed by powiats and voivodships not only for people with disabilities who are employed at supported work establishments but also for workers with disabilities who are employed at other establishments and also for people with disabilities who are not employed at all.

The money generated when supported work establishments don't pay taxes is public money, just as it would be if the enterprises paid taxes in the usual way and the money flowed back to enterprise rehabilitation funds through the national treasury. But why should it flow back to the same enterprises, or for that matter, back to enterprises at all? The enterprises that are the most prosperous and therefore benefit the most from the tax exemptions are not
Disability and Work in Poland

necessarily the ones where the needs of persons with disabilities are greatest. It may be that workers with disabilities at struggling cooperatives, which don't benefit much from tax exemptions because they aren't very profitable, have much greater needs than highly profitable supported work establishments.

Since the stated policy goal is not to segregate workers with disabilities in supported work establishments, but rather to encourage them to move into mainstream enterprises, one must also consider that the needs of workers with disabilities at mainstream enterprises are greater than workers at supported work establishments that happen to be big beneficiaries of tax exemptions. Another question is why these public funds, generated by tax exemptions, should be devoted exclusively to people with disabilities who are already working, and not at all to people with disabilities who aren't working. Most people with disabilities in Poland don't work. Perhaps if the money were also available to serve the needs of people with disabilities who don't have jobs, money to remove architectural and other obstacles where they live, money for transportation, money for training, more people with disabilities could be included in the labor force.

If tax exemptions for supported work establishments are continued, consideration should be given to pooling the money that is generated at the powiat or voivodship level. Enterprises, individuals and associations of people with disabilities would compete for grants by making proposals about how various amounts would be used. Public money would go where it is needed, not necessarily where it is generated.

The proposal would assign powiat and voivodship boards responsibility for certification of the degree of disability in the first and second instance, respectively. This puts local governments in the position of deciding how much money from the national budget will come to the locality. The localities all have an incentive to say "yes" to claims, and no one in the system except the Plenipotentiary has an incentive to say "no". The Plenipotentiary would have the responsibility to supervise the correctness and uniformity of application of standard procedures in matters concerning certification of the degree of disability. If the localities have incentives to exaggerate their certifications, it is important that the Plenipotentiary should have adequate budget and staff to exercise this supervision.

One can imagine circumstances in which unemployment increases much more rapidly in some regions than in others. In this case, the demands for disability certification could be much greater in the high-unemployment areas than in the low-unemployment areas. The Plenipotentiary might need to be very active in order to "hold the line" on correctness and uniformity. Unequal application of standards weakens workers' incentives to respond to labor market signals, and it may take people out of the labor force permanently in response to a problem that is only temporary. If necessary, extraordinary measures for distressed regions could be implemented via the unemployment insurance system. Differential application of disability standards is not an appropriate response to regional unemployment differentials.

The proposal would include on PFRON's Supervisory Board, among others, representatives of enterprises that don't hire people with disabilities and that are therefore
obligated to make payments under the quota-levy system; and also representatives of the Ministry of Finance and Ministry of the Economy. This is an excellent proposal.

Section IV. Concluding Remarks

Present disability legislation in Poland dates from 1991, the "Big Bang" days when social benefit legislation was extremely generous. It is now timely to assess whether disability policies and programs can be improved in terms of service to people with disabilities who are the beneficiaries, fairness to other worker groups that may be at a disadvantage in the labor market, and the taxpayers who pay the bill.

Some of the recommendations in this note follow standard practices of good public financial management, and they could be implemented immediately. Examples are requiring that all public money should show clearly in the accounts of public agencies, and all public spending should be appropriated through the budget. This point relates specifically to diversions of taxes from Supported Work Establishments. A number of recommendations for strengthening administration are also very clear.

Reform should proceed in four deliberate steps: additional data collection and analysis; policy formulation and debate; creation and promulgation of legislation; and implementation of new policies. Throughout, there is a need for a rather deliberate communications strategy. The communications strategy should entail not only transmissions from authorities to stakeholders, but also a program of soliciting views from stakeholders.

It is extremely important that policy formulation and debate should be based on a solid foundation of empirical data. This should includes a new survey of disability similar in scope to the April 1996 survey conducted by GUS, but broadened to include household and economic variables. The data files should not only be accessible to Government offices but should be available to researchers in universities and institutes as well. Similarly, a new National Actuary Office should be charged with making long run projections of the costs of disability insurance over the next several decades on an ongoing basis. The projections should model the impact of the reforms and the demographic changes which can be expected to add to the disability rolls in the future. The National Actuary Office would also make projections of old-age pensions and other social benefit programs.

It seems possible, though, that even the availability of solid data and sound projections would be insufficient to move policy formulation ahead. People with disabilities and the organizations that represent them seem reluctant to criticize bad programs, perhaps in fear that they would inadvertently hurt good programs also. They seem reluctant to oppose the abuse of good programs by people who aren't really disabled because they worry about hurting people who do need the programs. The philosophy seems to be that every penny spent on disability programs is a penny well spent, no matter what. Over the medium term, this philosophy is likely to hurt people with disabilities by inviting an eventual backlash that hits good programs as well as bad ones.
Disability and Work in Poland

Further, the taxpayer interest does not seem well-represented in the national discussion about disability. Taxpayers, especially workers who pay wage taxes, are hurt by costly, ineffective programs. Wage taxes that are higher than necessary hurt the competitiveness of Polish labor, reduce the rate of economic growth, and increase unemployment. Yet labor unions have been reluctant to criticize bad programs, perhaps because they see the supposed benefits of such programs more clearly than the costs. The quota-levy reduces enterprise profits and forces Polish enterprises to charge higher prices for goods and services than would otherwise be possible, hurting consumers and reducing international competitiveness. Yet associations of mainstream employers seem unwilling to resist the quota-levy and other taxes imposed upon them. In some countries, ministries of finance speak out in the taxpayer interest. In Poland, the Ministry of Finance does not seem adequately staffed to analyze disability policies and programs, and when it speaks out in favor of efficiency and value for taxpayer money, it is accused of being mean-spirited.

As a result of weak engagement by people with disabilities and their organizations, consultative groups, labor unions, associations of employers, and the Ministry of Finance, the entrepreneurs who benefit the most from the present system seem to control the policy development process. Opening and elevating the public debate is perhaps an even greater challenge than establishing a solid foundation of facts, figures and empirical evidence.
Bibliography


NIK (Supreme Chamber of Control), February 1999, “Information on the result of control of creation and maintenance of work places for disabled persons from resources of the State Fund for the Rehabilitation of People with disabilities”.

NIK (Supreme Chamber of Control, Department of Health and Physical Culture), June 1999, “Information on results of control of execution of the financial plan of the State Fund for the Rehabilitation of People with disabilities in 1998”.

Poland, Republic of; Act of 27 August 1997 on Occupational Rehabilitation and Employment of Disabled Persons.


Rzeczpospolita, November 10, 1999, numerous articles on disability in a special section.


World Bank, 2000. "Disability and Work in Poland -- Comments".
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>0101</td>
<td>Disability and Work in Poland</td>
</tr>
<tr>
<td>0023</td>
<td>Including the Most Vulnerable: Social Funds and People with Disabilities</td>
</tr>
<tr>
<td>0022</td>
<td>Promoting Good Local Governance through Social Funds and Decentralization</td>
</tr>
<tr>
<td>0021</td>
<td>Creating Partnerships With Working Children and Youth</td>
</tr>
<tr>
<td>0020</td>
<td>Contractual Savings or Stock Market Development. Which Leads?</td>
</tr>
<tr>
<td>0019</td>
<td>Pension Reform and Public Information in Poland</td>
</tr>
<tr>
<td>0018</td>
<td>Worker Reallocation During Estonia’s Transition to Market: How Efficient and How Equitable?</td>
</tr>
<tr>
<td>0017</td>
<td>How Poor are the Old? A Survey of Evidence from 44 Countries</td>
</tr>
<tr>
<td>0016</td>
<td>Administrative Charges for Funded Pensions: An International Comparison and Assessment</td>
</tr>
<tr>
<td>0015</td>
<td>The Pension System in Argentina: Six years after the Reform</td>
</tr>
<tr>
<td>0014</td>
<td>Pension Systems in East Asia and the Pacific: Challenges and Opportunities</td>
</tr>
<tr>
<td>0013</td>
<td>Survey of Disability Projects The Experience of SHIA, Swedish International Aid for Solidarity and Humanity</td>
</tr>
<tr>
<td>0012</td>
<td>The Swedish Pension Reform Model: Framework and Issues</td>
</tr>
<tr>
<td>0011</td>
<td>Ratcheting Labor Standards: Regulation for continuous Improvement in the Global Workplace</td>
</tr>
<tr>
<td>0010</td>
<td>Can Investments in Emerging Markets Help to Solve the Aging problem?</td>
</tr>
<tr>
<td>0009</td>
<td>International Patterns of Pension Provision</td>
</tr>
<tr>
<td>0008</td>
<td>Regulation of Withdrawals in Individual Account Systems</td>
</tr>
<tr>
<td>0007</td>
<td>Disability Issues, Trends and Recommendations for the World Bank</td>
</tr>
<tr>
<td>0006</td>
<td>Social Risk Management: A New Conceptual Framework for Social Protection and Beyond</td>
</tr>
<tr>
<td>No.</td>
<td>Title</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>0005</td>
<td>Active Labor Market Programs: Policy Issues for East Asia</td>
</tr>
<tr>
<td>0004</td>
<td>Pension Reform, Financial Literacy and Public Information: A Case Study of the United Kingdom</td>
</tr>
<tr>
<td>0003</td>
<td>Managing Public Pension Reserves Part I: Evidence from the International Experience</td>
</tr>
<tr>
<td>0002</td>
<td>Extending Coverage in Multi-Pillar Pension Systems: Constraints and Hypotheses, Preliminary Evidence and Future Research Agenda</td>
</tr>
<tr>
<td>0001</td>
<td>Contribution pour une Stratégie de Protection Sociale au Bénin</td>
</tr>
<tr>
<td>9934</td>
<td>Helping the Poor Manage Risk Better: The Role of Social Funds</td>
</tr>
<tr>
<td>9933</td>
<td>Coordinating Poverty Alleviation Programs with Regional and Local Governments: The Experience of the Chilean Social Fund - FOSIS</td>
</tr>
<tr>
<td>9932</td>
<td>Poverty and Disability: A Survey of the Literature</td>
</tr>
<tr>
<td>9931</td>
<td>Uncertainty About Children's Survival and Fertility: A Test Using Indian Microdata</td>
</tr>
<tr>
<td>9930</td>
<td>Beneficiary Assessment of Social Funds</td>
</tr>
<tr>
<td>9929</td>
<td>Improving the Regulation and Supervision of Pension Funds: Are there Lessons from the Banking Sector?</td>
</tr>
<tr>
<td>9928</td>
<td>Notional Accounts as a Pension Reform Strategy: An Evaluation</td>
</tr>
<tr>
<td>9927</td>
<td>Parametric Reforms to Pay-As-You-Go Pension Systems</td>
</tr>
<tr>
<td>9926</td>
<td>An Asset-Based Approach to Social Risk Management: A Conceptual Framework</td>
</tr>
<tr>
<td>9925</td>
<td>Migration from the Russian North During the Transition Period</td>
</tr>
<tr>
<td>9924</td>
<td>Pension Plans and Retirement Incentives</td>
</tr>
<tr>
<td>9923</td>
<td>Shaping Pension Reform in Poland: Security Through Diversity</td>
</tr>
<tr>
<td>9922</td>
<td>Latvian Pension Reform</td>
</tr>
<tr>
<td>No.</td>
<td>Title</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9921</td>
<td>OECD Public Pension Programmes in Crisis: An Evaluation of the Reform Options</td>
</tr>
<tr>
<td>9920</td>
<td>A Social Protection Strategy for Togo</td>
</tr>
<tr>
<td>9919</td>
<td>The Pension System in Singapore</td>
</tr>
<tr>
<td>9918</td>
<td>Labor Markets and Poverty in Bulgaria</td>
</tr>
<tr>
<td>9917</td>
<td>Taking Stock of Pension Reforms Around the World</td>
</tr>
<tr>
<td>9916</td>
<td>Child Labor and Schooling in Africa: A Comparative Study</td>
</tr>
<tr>
<td>9915</td>
<td>Evaluating the Impact of Active Labor Programs: Results of Cross Country Studies in Europe and Central Asia</td>
</tr>
<tr>
<td>9914</td>
<td>Safety Nets in Transition Economies: Toward a Reform Strategy</td>
</tr>
<tr>
<td>9913</td>
<td>Public Service Employment: A Review of Programs in Selected OECD Countries and Transition Economies</td>
</tr>
<tr>
<td>9912</td>
<td>The Role of NPOs in Policies to Combat Social Exclusion</td>
</tr>
<tr>
<td>9911</td>
<td>Unemployment and Unemployment Protection in Three Groups of Countries</td>
</tr>
<tr>
<td>9910</td>
<td>The Tax Treatment of Funded Pensions</td>
</tr>
<tr>
<td>9909</td>
<td>Russia's Social Protection Malaise: Key Reform Priorities as a Response to the Present Crisis</td>
</tr>
<tr>
<td>9908</td>
<td>Causalities Between Social Capital and Social Funds</td>
</tr>
<tr>
<td>9907</td>
<td>Collecting and Transferring Pension Contributions</td>
</tr>
<tr>
<td>9906</td>
<td>Optimal Unemployment Insurance: A Guide to the Literature</td>
</tr>
<tr>
<td>9905</td>
<td>The Effects of Legislative Change on Female Labour Supply: Marriage and Divorce, Child and Spousal Support, Property Division and Pension Splitting</td>
</tr>
</tbody>
</table>
### Social Protection Discussion Paper Series continued

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9903</td>
<td>A Bundle of Joy or an Expensive Luxury: A Comparative Analysis of the Economic Environment for Family Formation in Western Europe</td>
</tr>
<tr>
<td>9901</td>
<td>Active Labor Market Programs: A Review of the Evidence from Evaluations</td>
</tr>
<tr>
<td>9818</td>
<td>Child Labor and School Enrollment in Thailand in the 1990s</td>
</tr>
<tr>
<td>9817</td>
<td>Supervising Mandatory Funded Pension Systems: Issues and Challenges</td>
</tr>
<tr>
<td>9816</td>
<td>Getting an Earful: A Review of Beneficiary Assessments of Social Funds</td>
</tr>
<tr>
<td>9815</td>
<td>This paper has been revised, see Discussion Paper No. 9923</td>
</tr>
<tr>
<td>9814</td>
<td>Family Allowances</td>
</tr>
<tr>
<td>9813</td>
<td>Unemployment Benefits</td>
</tr>
<tr>
<td>9812</td>
<td>The Role of Choice in the Transition to a Funded Pension System</td>
</tr>
<tr>
<td>9811</td>
<td>An Alternative Technical Education System: A Case Study of Mexico</td>
</tr>
<tr>
<td>9810</td>
<td>Pension Reform in Britain</td>
</tr>
<tr>
<td>9809</td>
<td>Financing the Transition to Multipillar</td>
</tr>
<tr>
<td>9808</td>
<td>Women and Labor Market Changes in the Global Economy: Growth Helps, Inequalities Hurt and Public Policy Matters</td>
</tr>
<tr>
<td>9807</td>
<td>The World Bank Approach to Pension Reform</td>
</tr>
<tr>
<td>9806</td>
<td>Government Guarantees on Pension Fund Returns</td>
</tr>
<tr>
<td>9805</td>
<td>The Hungarian Pension System in Transition</td>
</tr>
<tr>
<td>9804</td>
<td>Risks in Pensions and Annuities: Efficient Designs</td>
</tr>
</tbody>
</table>

* The papers below (No. 9801-9818) are no longer being printed, but are available for download from our website at [www.worldbank.org/sp](http://www.worldbank.org/sp)
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9803</td>
<td>Building an Environment for Pension Reform in Developing Countries</td>
</tr>
<tr>
<td>9802</td>
<td>Export Processing Zones: A Review in Need of Update</td>
</tr>
</tbody>
</table>
Summary Findings

Disability is more prevalent in Poland than in any other country in the world, and the cost of the disability pension system and programs to encourage the employment of people with disabilities is among the highest in the world — over four percent of GDP. Too-generous benefits and lax enforcement encourage abuse of the disability pension system. The quota-levy system interacts with the system of Supported Work Establishments to benefit entrepreneurs rather more than people with disabilities. Poland's policies for people with disabilities need fundamental redesign in order to help those who truly need help, to increase labor force participation among people with disabilities, to discourage abuse of the system, and to reduce the wage tax that supports disability benefits and programs.

HUMAN DEVELOPMENT NETWORK

About this series...
Papers in this series are not formal publications of the World Bank. They present preliminary and unpolished results of analysis that are circulated to encourage discussion and comment; citation and the use of such a paper should take account of its provisional character. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. For free copies of this paper, please contact the Social Protection Advisory Service, The World Bank, 1818 H Street, N.W., Room C8-138, Washington, D.C. 20433-0001. Telephone: (202) 458-5267, Fax: (202) 614-0471, E-mail: socialprotection@worldbank.org or visit the Social Protection website at www.worldbank.org/sp.