Equity in social policy, a human rights and results based approach A welfare state comparison: the case of disability

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disability across welfare regimes. Secondly, the tripartite classification of welfare systems around a social, corporatist and liberal regime is noted to hold from a human rights and results based perspective. Thirdly, the social welfare regime shows best and most equitable social welfare outcomes followed by the corporatist and liberal welfare regimes (respective human rights and results based equity index: 0·93, 0·77 and 0·65). The integration of an additional cost factor supports best cost-effectiveness in the social welfare regime and in Sweden in particular. This may indicate that welfare systems founded on limited de-commodification, high public investment, priorisation of employment and valuing of collectivity and solidarity are most efficient. Yet, more in-depth research would be required to validate these findings and improve insight into causality.

Introduction

The reinforcement of equity in social welfare system development remains prominent in both, local and global policy arena. This paper aims to explore whether certain welfare systems produce more equitable social welfare outcomes than others. It explores welfare outcomes in a series of welfare systems with different classification across population groups. More specifically, it assesses whether there may be a relation between social welfare in the general population and in less advantaged population groups. For the purpose of this paper, people living with disability represent the latter. A choice founded on both, the universal characteristics of disability and its complexity that requires a holistic approach with strong cross-sector collaboration. Indicators against which to assess social welfare are inspired by the Universal Declaration of Human Rights and the Convention on the Rights of People with Disabilities. Welfare states explored are consistent with a tripartite classification, including: a) social: Denmark, Norway, Sweden; b) corporatist: France, Germany; and c) liberal: United Kingdom, United States of America.

The first section draws the conceptual framework and explains the methodologies applied in regard to: a) the identification of rights and results based social welfare indicators; b) people living with disability as a case for vulnerable population; and c) welfare state classification and sample choice. Section two, presents the results of analysis. In section three, results are discussed. Conclusions are formulated in section four.

It will be concluded that: firstly, there appears to be a correlation between social welfare outcomes in the general population and in people with

Conceptual framework and methodology

Rights and results based indicators

Over the last decades, research has benefitted from a steady expansion in data. In comparative social policy this expansion has been most significant with the increased availability of outcome data that results in new opportunities for more accurate assessment in the field of performance analysis.[1] This paper uses outcome data to assess welfare systems from a rights and results based perspective. It concentrates on the capacity of welfare states to ensure their population benefits fundamental human rights in an equitable way.

Since its creation in 1948, the Universal Declaration of Human Rights (UDHR) has introduced a common foundation for social welfare.[2] Its claim for universal well-being based on access to essential needs and basic social services in an environment that builds on mutual respect and participation remains an acknowledged foundation for social welfare development worldwide.

This paper is inspired by a conceptual framework, whereby, the success of a welfare system lays in: its contribution to the well-being of its population (a), through the achievement of fundamental human rights and more particularly, access to essential needs and basic social services (b), in an equitable way founded on mutual respect and participation (c). Fig 1, illustrates this rationale.

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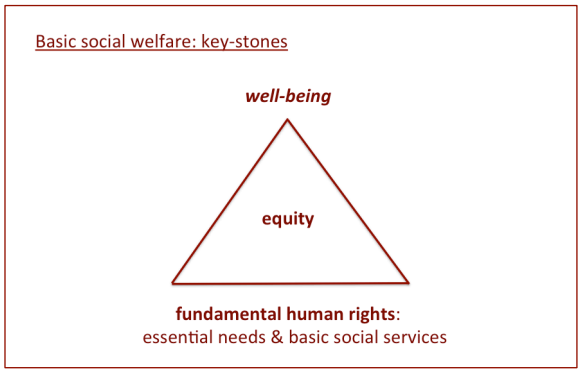

Fig 1: Conceptual framework: basic social welfare

Consequently, the identification of a series of indicators against which to assess social welfare is founded on a two pronged approach of: a) contents, inspired by fundamental human rights; and b) results, or the capacity of a welfare state to ensure people benefit these basic rights. For the purpose of this paper, data on income and poverty are assumed to indicate levels of living standard and access to essential needs; in a similar way that health, education and employment statistics are presumed to denote levels of access to basic social services; together these are considered to illustrate levels of equitable participation. Well-being is further assessed through a subjective quality of life appraisal. Results from both, the general population and a vulnerable population group were tabulated to calculate a human rights and results based equity index (HREI). The integration of an additional cost factor allowed to explore related cost-effectiveness.

Analysis is based on data drawn from a variety of sources, including: national statistics, surveys and reports as well as data compilations effected by multi-lateral organizations, such as the European Union (EU), World Bank (WB), World Health Organisation (WHO) and the Organisation for Economic Co-operation and Development (OECD). This allowed for the triangulation of data with the aim to promote validity of findings.

People living with disability as a vulnerable population group

The importance to include vulnerable population groups in the achievement of an equitable welfare system is widely acknowledged and so is its challenge. One way this has been expressed is in the additional conventions that have been developed to accentuate the value of universal access to basic human rights for all, including those with special needs.[3–5] Increased attention has helped to make considerable progresses in this regard and ongoing initiatives are promising.

Still, the vulnerability of people living with disability [i] (PwD) continues to be a concern worldwide.[4–7] Disability affects us all, it does not discriminate against age, gender, wealth or culture even specific incidence rates may be context specific. Furthermore, disability cannot be eradicated, on the contrary, it is most likely to increase in all; high, middle and low-income countries.[ii,6,7]

Disability is a complex issue that requires appropriate action across services sectors and between people to ensure to address both, the health condition of an individual and its interaction with contextual factors.[7] Over the last decades, this complexity has gained increased attention. The formerly medical focused approach to disability has been complemented with a social model approach to accentuate the importance of social and physical barriers in disability.[7,8] Yet, the two approaches were noted to be used in a dichotomous rather than homogenous way.[7] The International Classification of Functioning (ICF) becomes increasingly recognized as an appropriate alternative.[7,9,10] It proposes a more comprehensive "bio-psycho-social model" in which disability is defined as the umbrella term for the impairments, activity limitations and participatory restrictions experienced by a person with a long-term health condition.[7]

The choice of PwD to represent the vulnerable population group in this paper has been founded on both, the universal characteristics of disability and its complexity that requires a holistic approach with strong cross-sector collaboration.

Welfare state classification and sample choice

The classification of welfare states is commonly used in comparative social policy to construct explanations of differences in welfare between countries. Classification has been inspired by policy choice, input, production, operation or outcome and has led to different series of typologies.[11] The classification of welfare states continuous to be subject of animated debate in scholars.[1, 12-15] This paper follows the point of view of Esping-Andersen, who acknowledged that no classification fits all

[i] For the purpose of this paper the terminology "people living with disability" abbreviated as PwD refers to people with one or more disabilities/impairments.

[ii] Prevalence in high income countries and the world population is estimated at 15·4 and 15·3 respectively. Estimated prevalence rates are higher in the world population across age groups. This indicates that a majority of PwD live in middle and low income countries and highlights differences in population age distribution.

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states or indicators, yet, that classification may be useful to guide reflection.[12] To highlight this distinction between state system and system typology, the author chose to adopt the terminology of "regime" in classification.[12] A choice and terminology adopted in this paper.

Sampling of welfare states built on existing research in the field of welfare classification and availability of data. Welfare states were selected according to their inclusion in a cluster of nations consistent with a specific classification across the largest set of indicators within a series of peer validated welfare state classifications.[1, 12-14] Three clusters of welfare states consistent with different welfare typologies could be delineated. Namely: firstly, Denmark, Norway and Sweden in a social regime (soc); secondly, France and Germany in a corporatist regime (corp); and thirdly, the United Kingdom and the United States in a liberal regime (lib). (For details on sample choice, please refer to Appendix 1.)

Limitations

Current policy interest in equitable social welfare system strengthening and disability together with the steady expansion of outcome data created a supportive environment to undertake the analysis. But, when exploring data in more detail, difficulties arose from the use of different definitions and methodologies as well as from other presumed biases, such as sub-optimation and over and/or under-reporting. For example, data on inclusive education is based on "children with special education needs" a terminology with a definition that varies greatly between countries and may include pupils other than those living with disability alone.[16] Also, country estimates on disability prevalence are noted to vary significantly (<1 to >30%).[7] This considerably complicates the comparison of national data sets. Data was triangulated to promote validity of findings, nevertheless, estimates presented in this paper should be read with thoughtful consideration.

The identification of indicators was bound to factors of feasibility and it should be acknowledged that the objective indicators in this paper alone are not sufficient to indicate equity that implies a quality factor. For example, in education, segregated assistance according to needs may be more efficient towards further personal development than inclusion in mainstream facilities without adequate assistance.[17] Similarly, in employment, PwD may know less favourable work conditions than their non-disabled peers.[18] Thus, data should be interpreted with caution.

Because disability by its very nature relates to a challenged health condition the choice of PwD to represent a vulnerable population group implied a difficulty to address the fundamental human right in regard to health.

Analysis

This section, presents the results of social welfare outcome analysis in a selected number of welfare systems, in the general population and in people living with disability. Social welfare is measured against: a) objective indicators in relation to health, education, employment and living standard; and b) subjective appreciation of well-being.

Background

Population characteristics

Across sample welfare states the active population (15-64y) takes the most important share with an average of 65·7% (min 64·7%, France - max 66·8%, US).[19] Children (0-14y) and elderly people (>64y) share the remaining population about equally with children to take an average of 17·17% (min 13·3%, Germany - max 20·1%, US) and elderly people to take an estimated average of 17·11% (min 13·1%, US - max 20·6%, Germany).[19]

With a population-age distribution that shows fairly similar, it was considered acceptable to apply disability estimates as reported in the World Report on Disability for high-income countries.[7] Subsequently, PwD are estimated at an average of 15% of the population in sample welfare states (min 13·7, US – max 16·1 Germany). Disability prevalence steadily increases by age.[7,19] An estimated one child per class copes with disability (0-14y, 2·8%).[7,19] This estimate is presumed to increase by fourfold in the active population (15-59y, 12·4%).[7,19] At old age, two in five people are estimated to face the challenges of disability (60y+, 36·8%). The proportion of people with severe disability also increases by age (0-14y: 14·3%; 15-59y: 18·5%; 60y+: 20·8%). Overall, more than 80% of PwD are estimated to live with a moderate degree of disability. These estimates emphasize substantial possibilities for inclusion and support a claim for adequate services across age groups from early childhood onwards.

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Classification of disability varies largely between datasets. This paper uses a compromising classification that refers to four types of impairments; namely: physical, cognitive, hearing and visual. Physical impairment is estimated most prevalent concerning 18·6% of the population; hearing difficulties are estimated at 4·1%–3·9% in children and adults respectively; visual impairment shows a distinctively higher prevalence in adults estimated at 5·4% versus 0·23% in children; and the prevalence of cognitive disabilities is estimated to challenge <1% of children and >1% of adults. [7, 19, 21–27, 35] (Please refer to Appendix 2 for details on population characteristics.)

Results: human rights and results based social welfare indicators (HR-SWI)

HR-SWI 1 Health

Figure 2, shows at birth estimated life expectancy (LE) and healthy adjusted life years (HALE) for sample welfare states and their respective regimes.[28] France, Norway and Sweden show the highest LE (81y), Denmark and the US show the lowest (78y). Sweden shows highest HALE (74y), the US scores lowest (70y). The difference between HALE and LE is most favourable in Denmark (6y), least favourable in France (9y).

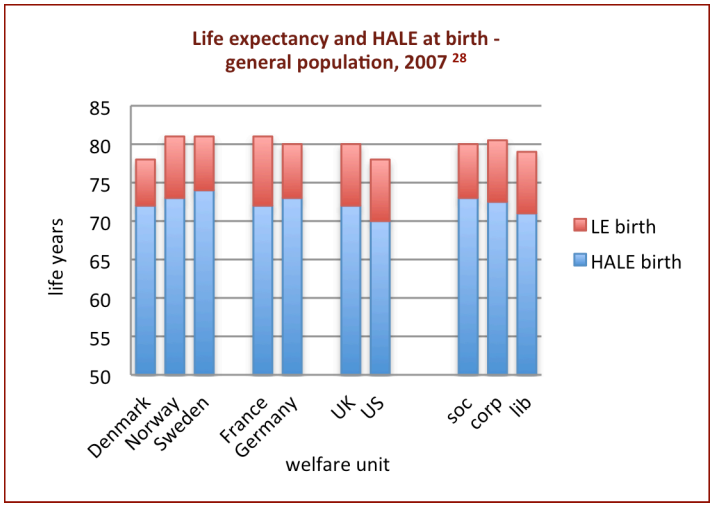

Fig 2: HR-SWI 1 Health - Life expectancy and HALE at birth, 2007 [28]

At regime level, the social welfare regime scores best in regard to LE (80y), HALE (73y) and the gap in between (7y). The liberal welfare regime shows lowest LE (79y) and HALE at birth (71y) and the largest difference between them (8y).

This may indicate that social welfare regimes achieve best healthy life outcomes, followed by the corporatist and liberal welfare regimes respectively.

HR-SWI 2 Education

Although, small variations exist in age and duration, sample welfare systems included in this paper have a compulsory education system in place that allows children to learn basic literacy and numeracy as well as social and professional skills.[16,24,31] Pupils with special education needs (PSEN) are offered specific assistance.[16,24,31] Nevertheless, information about needs for and efficiency of such assistance is limited and does not allow for meaningful inter state comparison. Based on the recognition that segregation is a means of last resort, this paper focuses on the efforts of welfare systems to include PSEN needs in mainstream facilities. Fig 3, illustrates this effort towards inclusion.[16, 31] It can be noted that inclusion efforts in sample welfare systems vary between 96.25% for Sweden and 17% for Germany. At regime level the social welfare regime shows the best inclusion rate of PSEN (84·8%) followed by the liberal (76·2%) and corporate (47·8%) welfare regimes.

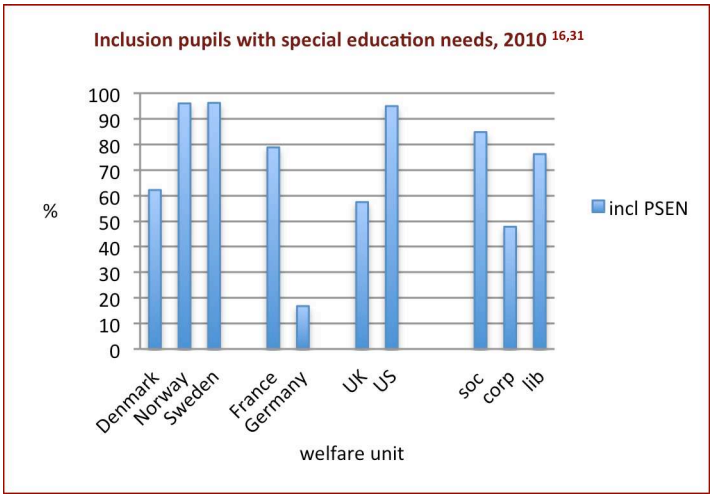

Fig 3: HR-SWI 2 Education - Inclusion of pupils with special education needs, 2010 [16,31]

When to presume that children with severe disability may benefit from temporary segregated special education services to better prepare for inclusion, an inclusion rate of 85% could be considered a target in compulsory education. Only Norway, Sweden and the US seem to reach this target. At regime level, this target is reached by the social welfare regime only.

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A review of related literature shows that two main approaches are seen in regard to the inclusion of pupils with special needs. Firstly, an inclusive approach that seeks to provide individual assistance according to needs within the system; and secondly, a segregated approach of a mainstream and specialised services system that co-operate at different levels.[24,31,32,33] The education systems in the social welfare regime are founded on this first approach.[24] The education systems in corporatist and liberal welfare regime states are built on the latter.[24,31]

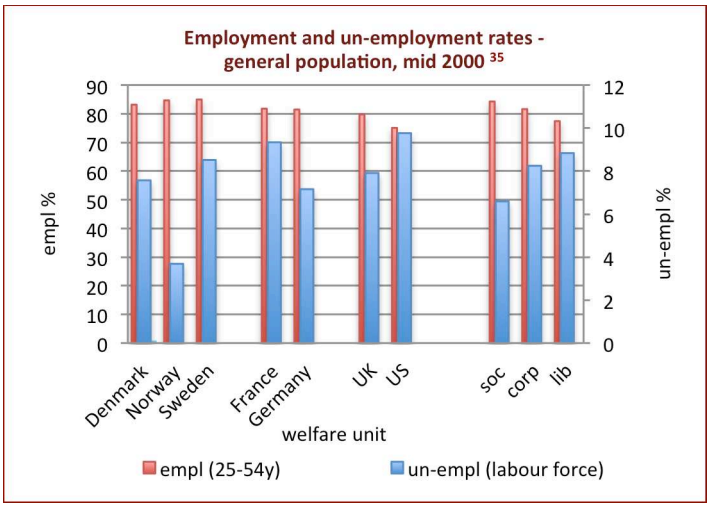

Fig 4: HR-SWI 3 Employment - Employment and un-employment rates in the general population, mid 2000 [35]

The positive inclusion efforts seen in France and the US are the fruits of the recent adoption of an inclusive education oriented legislative framework and demonstrate the considerable inclusion progresses made over the last decade.[24,31] Yet, data from social welfare regime sample states may be subject to under-estimation as inclusion of pupils with disability is not subject to the collection of dis-aggregated data. Contrarily to the US and France that monitor the implementation of new legislation closely and statistics in these sample states may be subject to sub-optimisation.[31,34] Thus, results should be interpreted with caution.

Education as a means towards personal development, social inclusion and autonomy may be considered to imply opportunities for employment. The next section explores this issue more in detail.

HR-SWI 3 Employment

Fig 4, gives an overview of employment and un-employment rates in the general population.[35] It can be noted that employment rates in the 25-54y of age group show most favourable in Sweden (85%) and least favourable in the US (75·1%). Un-employment in the labor force is estimated lowest in Norway (3·7%) and highest in the US (9·8%).

Overall the social welfare regime shows most favourable employment conditions (84·3% employment, 6·6% un-employment), the liberal welfare regime shows least favourable employment results (77·4% employment, 8·8% un-employment).

Fig 5; shows the employment and un-employment ratio for the population with and without disability in sample welfare states and their respective regimes.[36] When to explore data from individual sample welfare states, Denmark and Germany show the most equitable employment ratio (0·65), the US shows the lowest ratio (0·47). Un-employment ratios vary between 1·46 for the US and 2·25 for France.

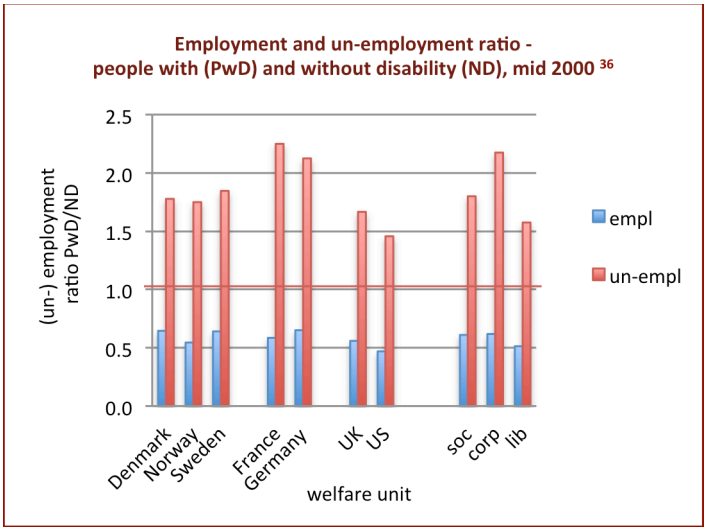

Fig 5: HR-SWI 3 Employment - Employment and un-employment ratios in people living with and without disability, mid 2000 [36]

With an employment ratio of 0·61 and 0·62 social and corporate welfare regimes show more equitable employment rates than the liberal welfare regime that shows a ratio of 0·51.

The liberal welfare regime seems to know the most equitable distribution of un-employment with a ratio of 1·58 against 1·80 and 2·18 in the social and corporatist welfare regimes respectively.

It should be noted that differences in classification, whereby systems may classify a number of PwD as in-active rather than un-employed may influence results. Overall it can be noted that PwD are less

likely to be employed and more likely to be un-employed than people without disability.[35]

With an inclusion target based on the estimated prevalence of moderate disability a target employment ratio of 0·8 could be deemed a reasonable objective. No sample welfare state seems to reach this target. It should be acknowledged that different policies in regard to the employment of PwD may affect statistics and results have to be read with vigilance. For example, in Denmark inclusion of PwD is part of every day management at operational level and is not subject to national statistics with a risk of under-reporting.[24,34] France, on the contrary, has a compulsory quota of employees with disability in large and middle size enterprises subject to a national monitoring system and statistics may be subject to sub-optimisation.[32]

Employment as a way to gain a living is a fundamental human right. Yet, when un-employment occurs, social security systems may ensure compensation benefits to warrant households can access essential needs and basic social services. The next paragraph will explore the subject of living standard in more detail.

HR-SWI 4 Living standard

With a sample composed of high-income welfare states a more severe poverty measure was chosen at 60% of the median income after taxes and transfers. Fig 6, presents this poverty rate and the gini-coefficient in the general population for sample welfare states and their respective welfare classification.[35]

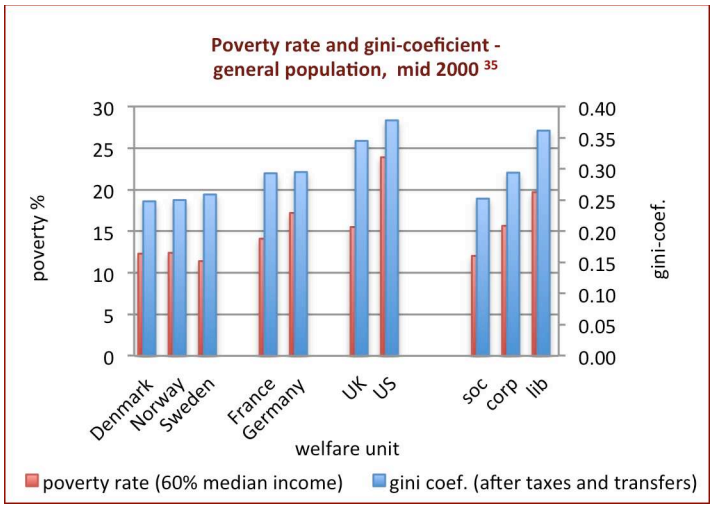

Fig 6: HR-SWI 4 Living standard - Poverty rate and gini-coeficient in the general population, mid 2000 [35]

Sweden shows the lowest poverty rate estimated at 11·4%, Denmark and Norway note the most equitable gini-coefficient at 0·25. The US has both, highest poverty rate (23·9%) and least favourable gini-coefficient (0·38).

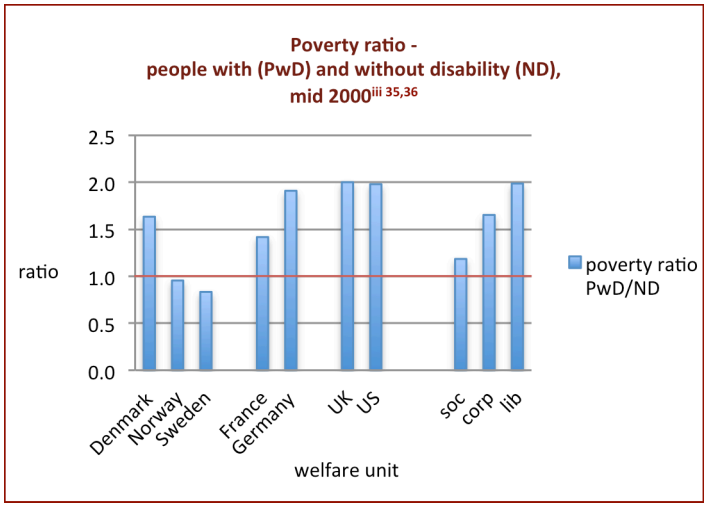

Fig 7: HR-SWI 4 Living standard - Poverty ratio in people living with (PwD) and without disability (ND), mid 2000[iii] 35,36

Poverty rates are estimated at 12%; 15·6% and 19·7% for social, corporate and liberal welfare regimes respectively. Gini-coefficients are calculated at 0·25; 0·29; 0·36 in social, corporate and liberal welfare regimes respectively.

Fig 7, 8, 9 provide an indication of equity in living standard in people living with and without disability across sample welfare states and their respective welfare regimes.[35,36]

Fig 7, illustrates the poverty ratio in both, population groups.[iii] Norway and Sweden know a protection from poverty in PwD with a relative risk estimated at 0·95 and 0·83 respectively. Poverty ratio is highest in the US and the UK where PwD are estimated to be respectively 1.98 and 2 times more likely to live in a poor household.

With a ratio of 1·18, the social welfare regime shows lowest difference towards increased poverty in PwD. The liberal regime shows the highest relative poverty risk (1·99).

It can be noted that across sample welfare states, PwD are more likely to live in a household challenged by poverty (ratio 1·61).

Fig 8, presents equity in income by

[iii] People living with disability in households with less than 60% of the median adjusted disposable income.

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employment status in both, population groups. It can be seen that employment status in PwD is best valued in Norway with a ratio of 1·08; the US shows the lowest result with a ratio of 0·89. Sweden shows most equitable income distribution in both, population groups for the in-active and un-employed statuses. The UK shows the largest income gap for these statuses at the dis-advantage of PwD with estimated ratios of 0·59 and 0·49 respectively.[iv]

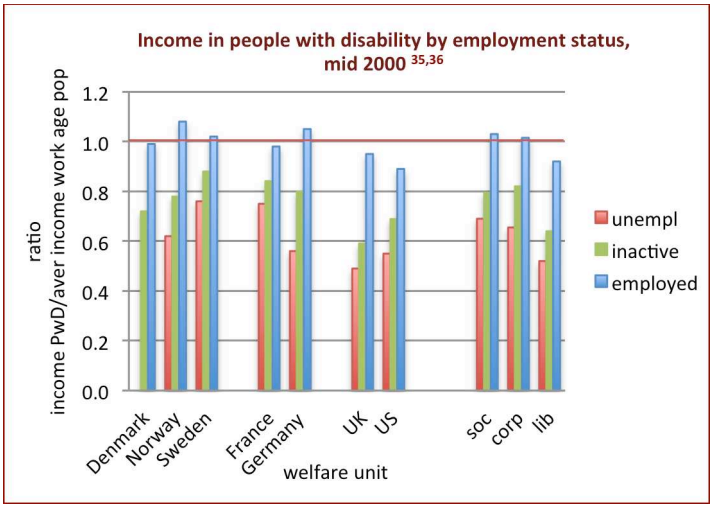

Fig 8: HR-SWI 4 Living standard – Income by employment status in PwD as a ratio of average income working age population, mid 2000 [35,36]

When to consider welfare regimes, the social welfare regime achieves best equitable result in the employed population (ratio: 1·03), followed by corporative and liberal welfare regimes (ratios: 1·015 and 0·92 respectively). In-active status is compensated at an approximately similar level in social and corporatist welfare regimes (ratios: 0·79; 0·82) followed by liberal welfare regimes (ratio: 0·64). Most equitable compensation for un-employment status is seen in the social welfare regime (ratio: 0·69) followed by the corporatist (ratio: 0·65) and liberal welfare regimes (0·52).

Whatever the employment status, household equivalised income per person shows greatest discrepancy between both, population groups in the liberal welfare regime. Overall, it can be noted that average household-size equivalised income per person is lower in PwD across sample welfare states (ratio: 0·79).

Fig 9, explores equity in income by educational status in people living with and without disability. It can be observed that only PwD who attained a tertiary level of education reach the average income of the working population with best results achieved in France (1·18) and the UK (1·17), the US shows the lowest ratio (0·83). Income ratios decrease with lower educational attainment. In upper secondary level graduates and those who do not attain a secondary education level France shows the most favourable income ratios (0·92 and 0·88 respectively), the US shows the lowest ratios (0·69 and 0·55 respectively).

At regime level, PwD who complete tertiary education reach an average income ratio of 1·05 (1·08 for social and corporatist welfare regimes and 1 for the liberal welfare regime). In those who complete secondary education income ratios of 0·9; 0·86 and 0·7 in social, corporatist and liberal welfare regimes respectively are noted. For those who do not attain secondary education level ratios are estimated at 0·8, 0·83 and 0·56 in social, corporatist and liberal welfare regimes respectively.

These data indicate that cross welfare regimes and systems explored, income by educational attainment is lower in PwD independent of educational level.

Results in this section indicate that overall, PwD are estimated to know a lower living standard than their non disabled peers (increased poverty risk in PwD, 1·6).

The next paragraph explores the last key-corner of the conceptual framework that underlies this paper, namely, subjective appreciation of well-being.

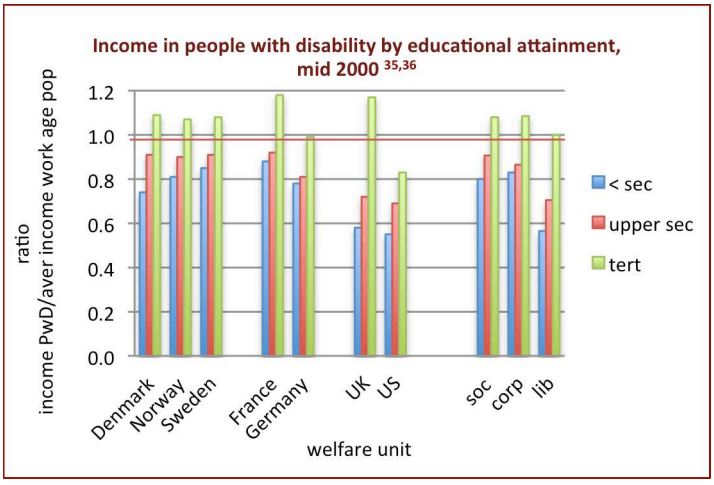

Fig 9: HR-SWI 4 Living standard - Income in PwD by educational attainment as a ratio of average income of the working age population, mid 2000 [35,36]

HR-SWI 5 Well-being

Fig 10, presents the positive and negative life experience indexes (pos/neg LEI) for sample

[iv] Denmark: no specific data for un-employment status.

countries and their respective welfare typology. Indexes are inspired by fundamental human rights in regard to dignity, participation and leisure for the positive experience index and an appraisal of pain, worry and anger to define the negative experience index.[33]

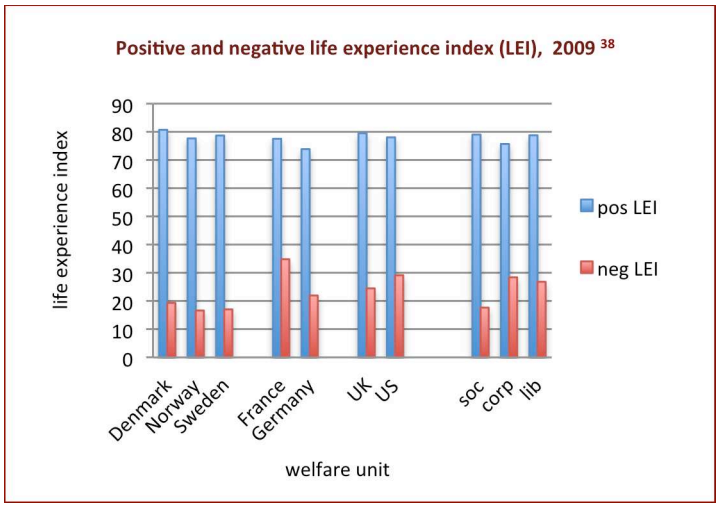

Fig 10: HR-SWI 5 Well-being – Positive and negative life experience index, 2009 [38]

It can be noted that positive experience indexes are high with best appreciation in Denmark (80·8). Germany shows the least favourable positive experience index (73·9). Negative experience indexes are significantly lower with a maximum index in France (34·8) and minimum index in Sweden (17).
Average positive index for the social welfare regime is estimated at 80·8, followed by the liberal (78·7) and corporatist (77·7) regimes. Negative experience indexes are calculated at 17·7 for the social regime and 28·4 and 26·8 for the corporatist and liberal welfare regimes respectively.

This data does not differentiate for subjective appreciation of well-being in PwD. Studies on the issue reveal that well-being in this population group may not significantly differ from the general population and for the purpose of this paper no distinction is made.[34] Specific factors that contribute to well-being in PwD are identified to include: acceptance of disability by the person living with disability and his/her environment.[41] The latter refers to both, social interaction and contextual factors, such as, structural and organizational aspects.[41] Self-esteem and a supportive behaviour in close ones are identified as most important in the acceptance of disability. Perceived social discrimination seems to have a significantly reverse impact.[41]

It should be recognised that subjective appreciation is prone to cultural interpretation bias.[41] People living in welfare systems with positive objective social welfare outcomes may be more demanding and critical in the appreciation of their system.
This section presented the results of analysis. The next section discusses the findings.

Discussion: Human rights and results based equity index

The former section presented a series of fundamental human rights based social welfare outcomes in a sample of welfare systems with different welfare regime classification in both, the general population and a less advantaged population group, namely people living with disability. In this section, findings are converted to allow for indexing and the calculation of a human rights and results based equity index (HREI).

Fig 11, summarises the results of tabulation. The human rights and results based index (HRI) is based on two sets of indicators, namely: employment, protection from poverty and gini-coeficient in the general population; and employment and protection from poverty in PwD.[v]
It can be noted that in the general population Denmark, Norway and Sweden hold the highest HRI (83·6; 84·4; 83·6 respectively), the UK and the US know the lowest HRI (78·6; 73·6 respectively).
In PwD, Sweden knows the highest HRI (92), the US the lowest (48·7). France knows the best HRI for employment in PwD (65). Yet, it was noted that this result may be subject to sub-optimation and its score may not be significantly different from Denmark or Sweden with HRI scores of 64·6 and 64·1 respectively.
When to look at indexes by welfare regime, it can be noticed that the social welfare regime knows best HRI in both, populations (83·9 GP – 78.2 PwD), followed by the corporatist regime (80·5 GP - 61·6 PwD) and the liberal welfare regime (78·1 GP – 50·8 PwD).
Overall, it can be seen that PwD know lower human rights and results based index scores than the general population with the exception of Sweden (HREI 1·1). Best equity in social welfare outcomes is seen in the social welfare regime,

[v] To promote validity of findings, two indicators were withdrawn from the original indicator list, namely inclusive education in PwD and subjective appreciation of well-being. It was found that the results for these two indicators were subject to potential biases too important to be ignored.

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followed by the corporate and liberal welfare regimes (HREI 0·93, 0·77 and 0·65 respectively).

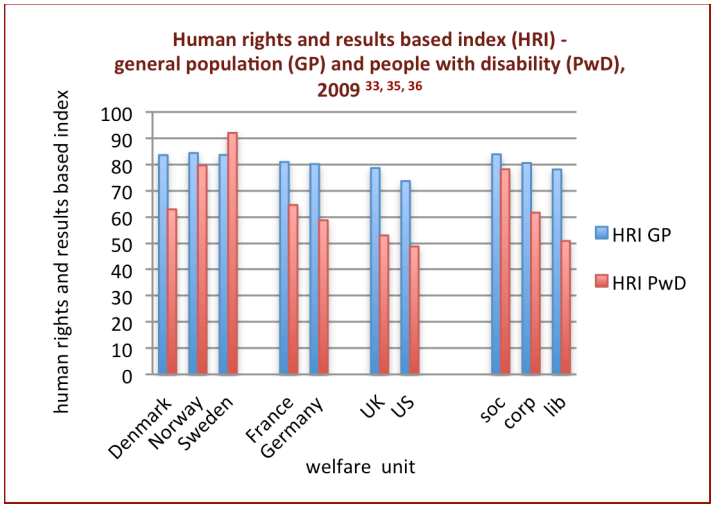

Fig 11: HREI - Human rights and results based index in the general population and people with disability, 2012 [33, 35, 36]

These results may support the hypothesis that there may be a relationship between social welfare outcomes in the general population and in less advantaged population groups. From Fig 11, it can be noted that HRI in both, populations follow a similar trend across welfare systems and regimes with the exception of the social democratic welfare cluster. In this cluster, HRI scores are high in both population groups, but, the difference between population groups varies considerably. HRI in the general population varies little between welfare state cluster states, yet, HRI in PwD is considerably lower in Denmark (62·9), compared to Norway (79.6) and Sweden (1.1).

At regime level, scores show a similar trend in and between populations with the social democratic welfare regimes to produce the best and most equitable social welfare outcomes, followed by the corporatist and liberal welfare regimes respectively (HREI 0·93, 0·77. 0·65). As such, the tripartite classification of social welfare regimes around a social, corporatist and liberal regime seems to hold from a human right and results based perspective.

The positive results in the social welfare regime and its designated welfare states may indicate that welfare systems founded on limited de-commodification, high public investment, priorisation of employment and valuing of collectivity and solidarity are most efficient from an equity perspective.[42]

When to explore social spending it could be seen that public spending decreases steadily between the social, corporatist and liberal welfare regimes (10541·6 pppUSD/cap, 9196·8 pppUSD/cap and 7441·4 ppp/cap respectively); as does the relative small share of mandatory private social spending (305·1 ppp/cap, 250·5 ppp/cap and 211·6 ppp/cap respectively). Voluntary private social spending is approximately similar in the social and corporate welfare regimes (751.8 ppp/cap and 745.7 ppp/cap), yet, considerably higher in the liberal welfare regime (3243.5 ppp/cap). (Please refer to Appendix 3, for further details). Fig 12, illustrates HREI and total per capita social spending across sample welfare states and regimes. It can be noted that the social welfare regime shows best HREI (93·24) social spending (11598·6 pppUSD/cap) relationship. The corporatist welfare state shows lower social spending (9196·8 pppUSD/cap) with lower HREI (76·54) and the liberal welfare regime scores lowest HREI (65.1) at a comparative high social spending (10896·5 pppUSD/cap). This may indicate that the social welfare regime and Sweden in particular (social spending 11598·3 pppUSD/cap, HREI 110) have

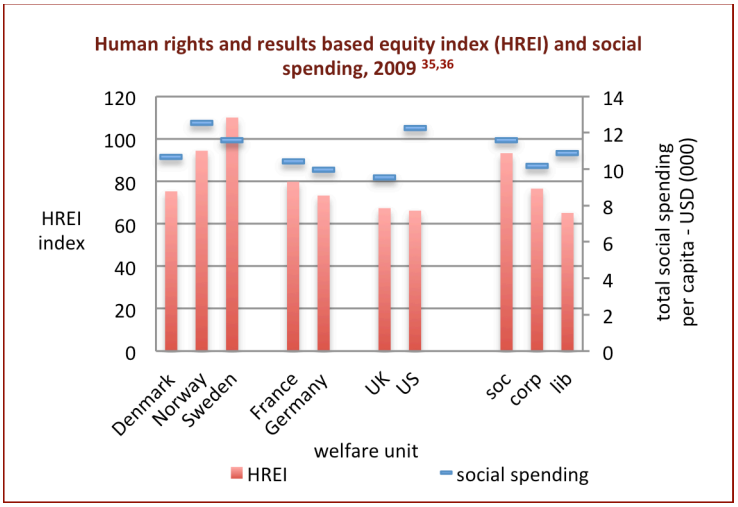

Fig 12: HREI - Human rights and results based equity index and social spending, 2009 [35,36]

social welfare systems that show most cost effective.

Yet, additional questions remain about the effectiveness and efficiency of welfare systems. For instance, spending on compulsory education in the US is about 30% higher than in Germany for respective PISA scores of 499·8 and 497·3.[35] Again, a 65% rejection rate of disability allowance requests in the US versus 9·9% in Denmark may indicate cultural differences towards the claiming of benefits with consequences for system

effectiveness.[36] More in-depth research would be required to better understand the influence of contextual factors on social welfare outcomes across different welfare systems and regimes.[43]

Conclusions

This paper aimed to explore whether certain welfare regimes produce more equitable social welfare outcomes than others. Analysis was guided by a conceptual framework whereby basic social welfare is defined by the capacity of a welfare system to ensure the well-being of its population through access to essential needs and basic social services in an equitable environment based on inclusion, participation and non-discrimination.
A series of social welfare indicators were explored in the general population and a vulnerable population group. The latter represented by people with disability. Welfare systems explored were consistent with a tripartite classification of welfare regimes, namely: social, with Denmark, Norway and Sweden; corporatist: with France and Germany; and liberal: represented by the United Kingdom and the United States of America.

It can be concluded that firstly, there seems to be a relationship between social welfare outcomes in the general population and in people with disability across welfare systems. Secondly, the tripartite classification of welfare regimes around a social, corporatist and liberal regime seems to hold from a human right and results based perspective. Thirdly, the social regime appears to produce the best and most equitable social welfare outcomes, followed by the corporatist and liberal welfare regimes respectively (HREI: 0·93; 0·77; 0·65). The latter may indicate that welfare systems founded on limited de-commodification, high public investment, priorisation of employment and valuing of collectivity and solidarity produce more equitable human rights and results based welfare outcomes.[42] Yet, more in-depth research would be required to validate these findings and to better understand aspects of causality.

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Abbreviations and acronyms

%	percentage
aver	average
cap	per capita
corp	corporatist welfare regime
EU	European Union
exp	experience
fig	figure
GP	general population
HALE	healthy adjusted life expectancy at birth
HI	high income countries
HR-SWI	human rights and results based social welfare indicator
HREI	human rights and results based equity index
HRI	human rights and results based index
ICF	International Classification of Functioning
Incl.	inclusive
LE	life expectancy at birth
lib	liberal welfare regime
man	mandatory
max	maximum
min	minimum
NA	non applicable
ND	no disability (people living without disability)
neg	negative
OECD	Organisation of Economic Development and Co-operation
PISA	Programme for International Student Assessment
pop	population
pos	positive
ppp	purchase power parity
priv	private
PSEN	pupils with special education needs
pub	public
PwD	people living with disability
soc	social democratic welfare regime
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UN	United Nations
unempl	unemployed
US	United States of America
USD	United States of America Dollars
vol	voluntary
WB	World Bank
WHO	World Health Organisation
work	working
WRD	World Report on Disability
y	years

Appendixes

Appendix 1: Welfare system sampling

Welfare states were selected according to their inclusion in a cluster of nations consistent with a specific classification across the largest set of indicators within a series of peer validated welfare state classifications.[13,14 vi] A1 Table 1, provides an overview of the selected welfare states clusters by welfare regime and indicator. Three clusters of welfare states consistent with three different welfare typologies could be delineated. Namely: firstly, Denmark, Norway and Sweden in a social regime (soc); secondly, France and Germany in a corporatist regime (corp); and thirdly, the United Kingdom and the United States under a liberal regime (lib). The latter cluster also included the welfare state of Ireland, but, this welfare state had to be withdrawn because of insufficient availability of data for analysis purposes.

A1 Table 1: Sample welfare states by welfare regime and indicator[13,14]

Welfare regime typology	Social	Corporatist	Liberal
Cluster welfare states	Denmark Norway Sweden	France Germany	UK US
Indicator			
Aggregate welfare expenditure (a)	X		
Basic Income (b)	X		X
Benefit equality (a)	X		
Characteristics (b)	X		X
Coverage (c)	X	X	
Decommodification (d)	X	X	X
-cluster (e,f)	X		X
-health care (g)		X	X
-pension (h)	X	X	X
Family welfare (i)	X	X	X
Institutional characteristics (j)		X	X
Luxembourg income study (j)		X	X
Political tradition (k)	X	X	X
Poverty rates (c)	X	X	
Private public mix (d)	X	X	X
Replacement rates (c)	X	X	
Rights (b)	X		X
Social expenditure as % GDP (j, l)	X	X	X
Social expenditure via contributions (l)	X	X	
Social stratification (d)	X	X	X

A1 Table 2: Original labeling of sample welfare state typologies[13,14]

Welfare regime	**Original labeling**
Social	Non-right hegemony (a), Scandinavian (b, c), Social democratic (d, e, f, h, k) Protestant Social democratic (i), Service approach (j), Nordic (l)
Corporatist (j)	Conservative (d, g), Bismarck (c), Christian democrat (k), Advanced Christian democratic (i), Continental (l)
Liberal (d, e, f, g)	Anglo-Saxon (b), Liberal Anglo-Saxon (k), Protestant liberal (i), Basic security (j)

[vi] (a) Castles and Mitchell 1993, (b) Leibfried 1992, (c) Ferrera 1996, (d) Esping Anderson 1990, (e) Kangas 1994, (f) Pitzurello 1999, (g) Bambra 2005, (h) Ragin 1994, (i) Siaroff 1994, (j) Korpi and Palme 1998, (k) Navarro and Shi 2001, (l) Bonoli 1997

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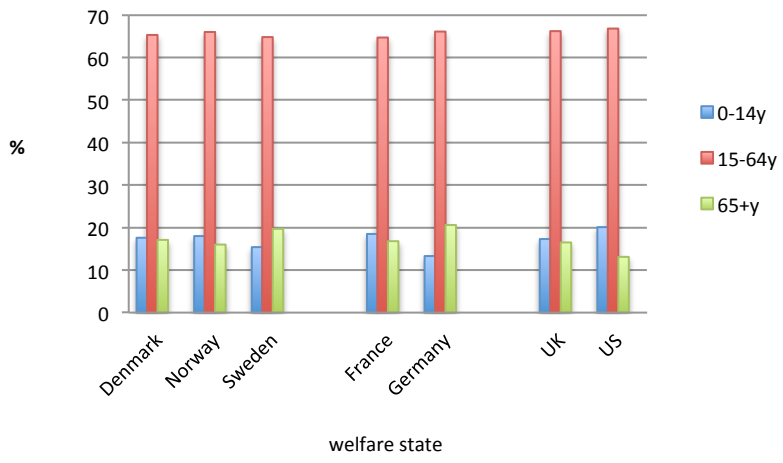
Appendix 2: Population characteristics

A 2.1 Population age distribution in sample welfare states

Table A 2.1: Population age distribution in sample welfare states, 2011 [19]

Welfare state	0-14y	15-64y	65+y
Denmark	17.6	65.3	17.1
Norway	18	66	16
Sweden	15.4	64.8	19.7
France	18.5	64.7	16.8
Germany	13.3	66.1	20.6
UK	17.3	66.2	16.5
US	20.1	66.8	13.1
average	*17.17*	*65.70*	*17.11*

Fig A 2.1: Population age distribution in sample welfare states, 2011 [19]

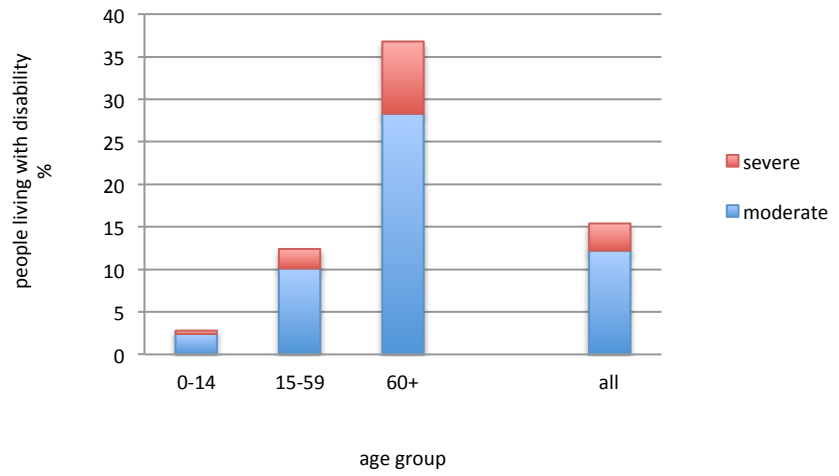


A 2.2 Disability prevalence by kind in children and adults

Table A 2.2: Disability prevalence by age and degree for high-income countries, 2004 [7]

age group	degree		total
	moderate	severe	
0-14	2.4	0.4	2.8
15-59	10.1	2.3	12.4
60+	28.3	8.5	36.8
all	*12.2*	*3.2*	*15.4*

Fig A 2.2 : Disability prevalence by age and degree - high-income countries, 2004 [7]



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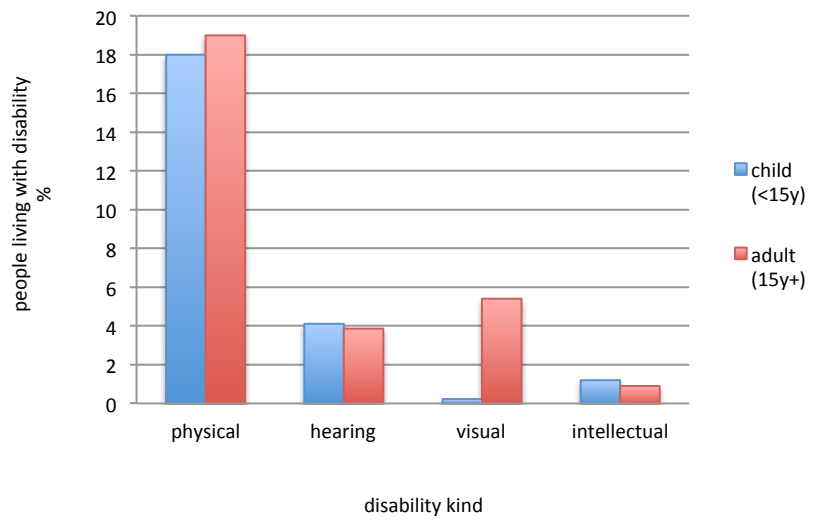
A 2.3 Disability prevalence by kind in children and adults

Table A 2.3: Disability prevalence by kind in children and adults, mid 2000 [7, 19, 21-27, 35]						
impairment	0-14y		15y+		total	
	n (000 000)	%	n (000 000)	%	n (000 000)	%
physical [(7)]	332.40	18.00	979.35	19.00	1302.21	18.60
hearing [(21, 22)]	75.90	4.11	199.10	3.86	275.00	3.93
visual [(23-25)]	4.17	0.23	278.83	5.41	285.00	4.07
intellectual [(26, 27)]	22.16	1.20	46.39	0.90	68.55	0.98

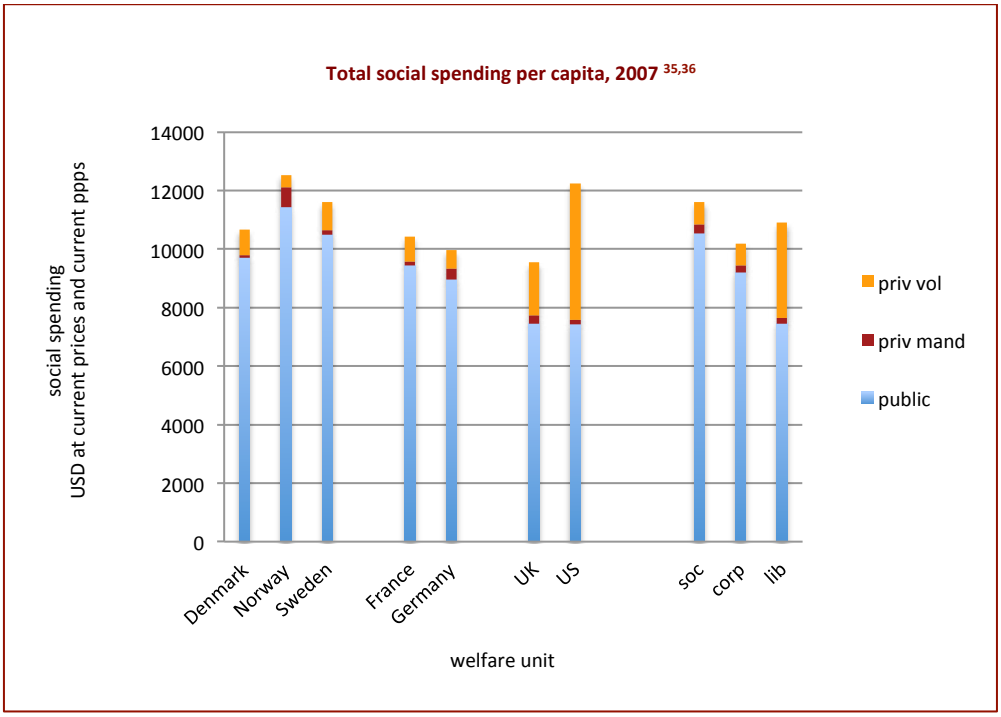
Fig A 2.3: Disability prevalence by kind - children and adults, mid 2000 [7, 19, 21-27, 35]



Appendix 3: Social spending per capita, public - private

Table A 3: Social spending per capita (USD): public-private, 2007 [35,36]

Welfare unit	general population			
	public	priv mand	priv vol	total per cap
Denmark	9705.31	92.46	867.68	10665.45
Norway	11427.05	672.81	431.96	12531.82
Sweden	10492.51	149.97	955.81	11598.29
France	9445.01	116.32	855.17	10416.50
Germany	8948.57	384.71	636.14	9969.42
UK	7447.77	281.89	1816.42	9546.08
US	7434.94	141.25	4670.67	12246.86
soc	10541.60	305.10	751.80	11598.52
corp	9196.80	250.50	745.70	10192.96
lib	7441.40	211.60	3243.50	10896.47



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