

# The Impact of Disability on fertility among young men and women

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## **Abstract**

**Aim:** This study aims to compare fertility between people with disabilities and those without disabilities and to identify associated demographic factors.

**Method:** The materials under study consist of 693 247 persons from the Swedish population born between 1968 and 1970.

**Results:** Persons who received disability pension had fewer children compare to those without disability pension. Persons that received disability pension had children at a much younger age when compared to those who did not receive disability pension. Marriage was less common in the group that received disability pension compared to those who did not receive disability pension. Our regression findings indicate an association receiving disability pension and reduced odds of having children. Age at starting to receive disability pension was associated with age of having children. People born outside Sweden were more likely to have no children regardless of sex. We also noted that Women were more likely to have children when compared to men.

**Conclusion:** Disability is associated with low fertility and early start of parenthood.

## **Introduction**

Disability affects many individuals across lifespan including during childbearing years. In 2016, in the EU-28, over 24.3% of the population aged 16 and over report long-standing limitation in their usual activities due to health problems<sup>1</sup>. Over 12.9% of Sweden's population have a disability<sup>1</sup> yet very little is known about the fertility in this population. Having children ranks among the major life goals symbolising expected transitions between childhood and adulthood. Sweden has had several changes in its fertility levels, the first four decades of the 20<sup>th</sup> century witnessed a continuous decline in fertility, in the 1940s, "the baby boom" took place, fertility began to decline again in the 1950's, though this ended in the late 1970's and since then Sweden has maintained a relatively high fertility rate<sup>2,3</sup>. The comparatively high and steady fertility in Sweden that begun in the mid-1970s coincided with the introduction of the family policy in 1974<sup>4-6</sup>. The two explicit goals of the family policy were to; a) increase women's participation in the workforce and 2) intensify men's participation in childcare. This policy is part of a generous welfare system characterised by parental leave with a benefits scheme based on previous earnings, child benefits, and day care for pre-school children and laws protecting working parents<sup>4,7-9</sup>. There is substantial research on the fertility of the general Swedish population; however, there is limited research on the fertility of people with disabilities. Global evidence suggests that fertility differ between people with disabilities and those without disabilities.

## **Study Aim**

This study aims to compare fertility between people with disabilities and those without disabilities and to identify associated demographic factors.

## **Method**

The materials under study consist of 693 247 persons from the Swedish population born between 1968 and 1970. The study obtained anonymized data from Statistics Sweden with the original file consisting of. The original data on total population, disability pension and demographic and socio-economic factors are from the Longitudinal Integration Database for Health Insurance and Labour Market Studies (LISA database).

## **Measurement of study variables**

The outcome of interest was having a child or not by the age of 40 years. Those who had a child were coded yes (coded as 1), while those who did not have a child were coded as no (coded as 0). We also stratified this variable based on age of having a first child. The main explanatory variable was disability pension. Disability pension is one of the crucial income security programs serving a major purpose of

replacing foregone earnings for workers below the retirement age with an impairment preventing them from work<sup>10</sup>. The covariates of interest included index person's sex, country of birth and year of birth.

### *Statistical analysis*

The main independent variable indicating fertility that we use is having at least one child by the age of 40. To test statistical significance of differences in childbearing between people with disabilities and people without disabilities we use logistic regression models where we adjust for sex, country of birth, year of birth.

### **Results**

The descriptive results presented in Table 1 show that majority of the study persons had at least one child. Those who received disability pension had fewer children compare to those without disability pension. Majority of persons who received disability pension had children at a much younger age when compared to those who did not receive disability pension. Marriage was less common in the group that received disability pension compared to those who did not receive disability pension.

Our regression findings presented in Table 2 and 3 indicate an association receiving disability pension and reduced odds of having children. Age at starting to receive disability pension was associated with age of having children. People born outside Sweden were more likely to have no children regardless of sex. The odds of having children were low for the birth cohort of 1969 and 1970 when compared to the birth cohort of 1968, and this was the case regardless of sex. We also noted that Women were more likely to have children when compared to men.

**Table 1. Characteristics of the Swedish birth cohort of 1968-1970 by disability status**

<i>Descriptive</i>		<i>Not Disability</i>	<i>Disability</i>	<i>Total</i>
		<i>(n=416 003)</i>	<i>(n=24 218)</i>	<i>(n=440 221)</i>
		<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>
<b><i>Any children</i></b>	No	113 000 (27)	9 019 (37)	122 019 (28)
	Yes	303 003 (73)	15 199 (63)	318 202 (72)
<b><i>Number of children</i></b>	0	113 000 (27)	9 019 (37)	122 019 (28)
	1	60 780 (15)	3 769 (16)	65 549 (15)
	2+	242 223(58)	11 430 (47)	253 653 (58)
<b><i>Age at having a child</i></b>	No children	113 000 (27)	9 019 (37)	122 019 (28)
	13-25	99 634 (24)	9 202 (38)	108 836 (25)
	26-30	93 523 (22)	3 408 (14)	96 931 (22)
	31-35	74 561 (18)	1 700 (07)	76 261 (17)
	36-45	35 285 (08)	889 (04)	36 174 (08)
<b><i>Sex</i></b>	Male	215 451 (52)	9 130 (38)	224 581 (51)
	Female	200 434 (48)	15 088 (62)	215 522 (49)
<b><i>Country of birth</i></b>	Sweden	311176 (75)	19 855 (82)	331 031 (75)
	Abroad	104 315 (25)	4363 (18)	108 678 (25)
<b><i>Civil status</i></b>	Unmarried	232183 (56)	16 759 (69)	248 942 (57)
	Married	183 820 (44)	7 459 (31)	191 279 (43)
<b><i>Birth year</i></b>	1968	141 670 (34)	8 868 (37)	150 538 (34)
	1969	135 863 (33)	8008 (33)	143 871 (34)
	1970	138 470 (33)	7 342 (30)	145 812 (33)

**Table 2: The Logistic regression results on the association between disability pension and having a child and having a child for men adjusted for sex, country of birth and year of birth for the birth cohort of 1968-1970**

Demographic and socioeconomic factors		Birth at 13-25 years:	Birth at 25-30 years	Birth at 30-35 years	Birth at 35-40 years
		(n=224 372)	(n=187 217)	(n=139932)	(n=97 032)
		E (SE) and p-values	E (SE) and p-values	E (SE) and p-values	E (SE) and p-values
Disability Pension	No	1.00	1.00	1.00	1.00
	Age <25	0.24 (0.19-0.29)***	0.04 (0.03-0.06)***	0.11 (0.08-0.13)***	0.11 (0.08-0.13)***
	25-20	1.07 (0.92-1.24)***	0.17 (0.13-0.22)***	0.32 (0.24-0.41)***	0.32 (0.24-0.41)***
	30-35	1.67 (1.53-1.81)***	0.44 (0.39-0.49)***	0.54 (0.46-0.62)***	0.54 (0.46-0.62)***
	36-45	1.90 (1.76-2.06)***	0.54 (0.47-0.61)***	0.41 (0.34-0.49)***	0.41 (0.34-0.49)***
Country of birth	Sweden	1.00	1.00	1.00	1.00
	Abroad	0.92 (0.89-0.95)***	0.52 (0.50-0.53)***	0.49 (0.48-0.52)***	0.49 (0.48-0.52)
Year of birth	1968	1.00	1.00	1.00	1.00
	1969	0.95 (0.92-0.97)**	1.08 (1.05-1.11)***	0.96 (0.91-1.00)***	0.96 (0.91-1.00)***
	1970	0.85 (0.83-0.87)***	1.09 (1.07-1.13)***	0.91 (0.87-0.95)***	0.91 (0.87-0.95)***

For each model was adjust for all study covariates. OR=Odds Ratio; CI=Confidence Interval; DP= Disability Pension; \*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$

**Table 3: The Logistic regression results on the association between disability pension and having a child at age among women, adjusted for sex, country of birth and year of birth for the birth cohort of 1968-1970**

Demographic and socioeconomic factors		Birth at 13-25 years	Birth at 25-30 years	Birth at 30-35 years	Birth at 35-40 years
		Females			
		(n=215 339)	(n=143 671)	(n=94034)	(n=60678)
		E (SE) and p-values	E (SE) and p-values	E (SE) and p-values	E (SE) and p-values
Disability Pension	No	1.00	1.00	1.00	1.00
	Age <25	0.37 (0.33-0.42)***	0.18 (0.15-0.21)***	0.11 (0.08-0.13)***	0.11 (0.08-0.13)***
	25-20	1.62 (1.47-1.78)***	0.37 (0.31-0.44)***	0.32 (0.24-0.41)***	0.32 (0.24-0.41)***
	30-35	2.79 (2.65-2.96)***	0.83 (0.76-0.91)***	0.54 (0.46-0.62)***	0.54 (0.46-0.62)***
	36-45	2.47 (2.35-2.59)***	1.34 (1.24-1.44)***	0.41 (0.34-0.49)***	0.41 (0.34-0.49)***
Country of birth	Sweden	1.00	1.00	1.00	1.00
	Abroad	1.16 (1.13-1.18)***	0.62 (0.60-0.64)***	0.49 (0.48-0.52)	0.49 (0.48-0.52)
Year of birth	1968	1.00	1.00	1.00	1.00
	1969	0.95 (0.93-0.97)***	0.96 (0.93-0.98)***	0.96 (0.91-1.00)***	0.96 (0.91-1.00)***
	1970	0.89 (0.88-0.92)***	0.90 (0.88-0.93)***	0.91 (0.87-0.95)***	0.91 (0.87-0.95)***

For each model was adjust for all study covariates. OR=Odds Ratio; CI=Confidence Interval; DP= Disability Pension; \*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$

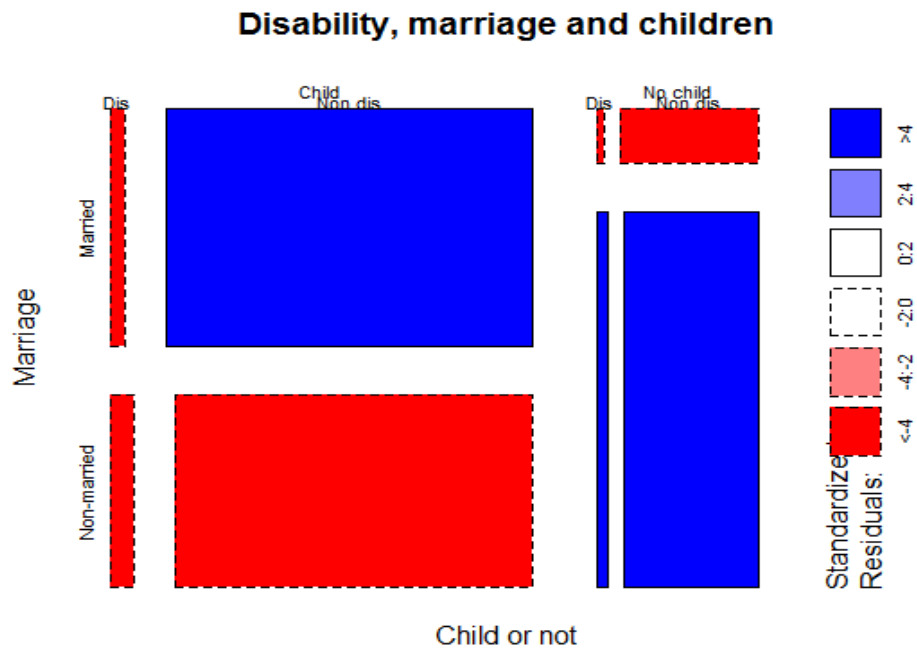


Figure 1

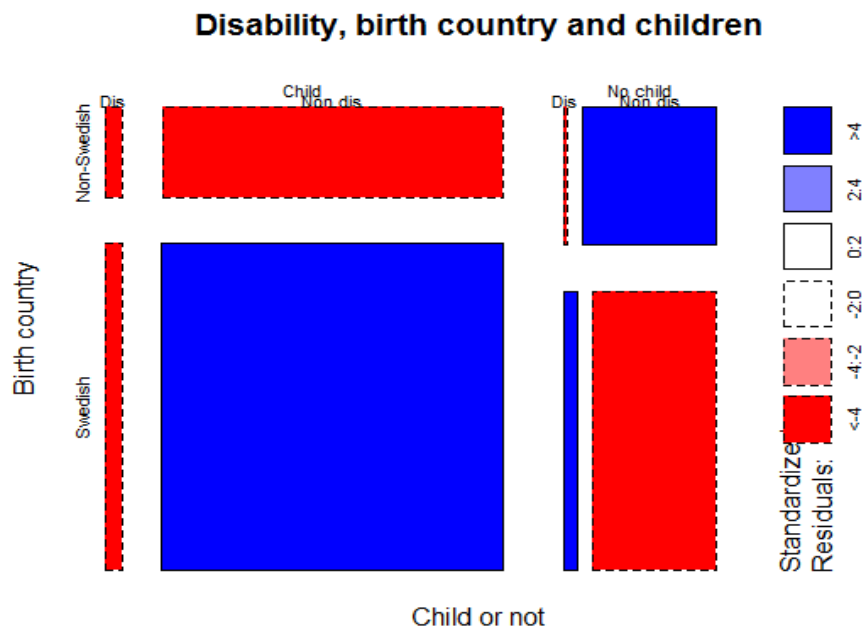


Figure 2

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