

# Number of contracts and occupational categories as associated factors to the potential years of working life lost due to non-work related permanent disability.

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## Introduction

Permanent disability (PD) is the consequence of an injury or illness that is definitive in nature and objectively decreases the capacity of the worker. Normally, this is the end of a process of successive episodes of temporary disability of varying duration. A PD implies an indefinite period of inactivity, and therefore can persist until the legal retirement age depending on the worker's age and the severity of the disability. Some factors, such as occur with temporary disabilities, may be related to employment and working conditions, even when the incapacity is the result of damage caused by non-work related disease or injury. Studies to date tell us about the economic and social impact of premature mortality and disability, but not about the associated factors which can be possibly modified to reduce the years of working life lost.

## Objective

To analyze the association between the number of contracts and occupational category and potential productive years of life lost (PPYLL) due to a permanent disability caused by non-work related diseases and injuries.

## Subjects and methods

The study design was a retrospective cohort of 11,812 workers affiliated with the Social Security System in Spain that began a non-work related PD in the study period (between 2004 and 2009). PPYLL was defined as the time in years between the age at which a worker initiates a PD and 65 years old (the official retirement age at this moment), or the age of reinstatement to a job (12.9% returned to work before age 65). The PPYLL was described and analyzed by calculating the quartiles and using an approach based on a median regression.

## Results

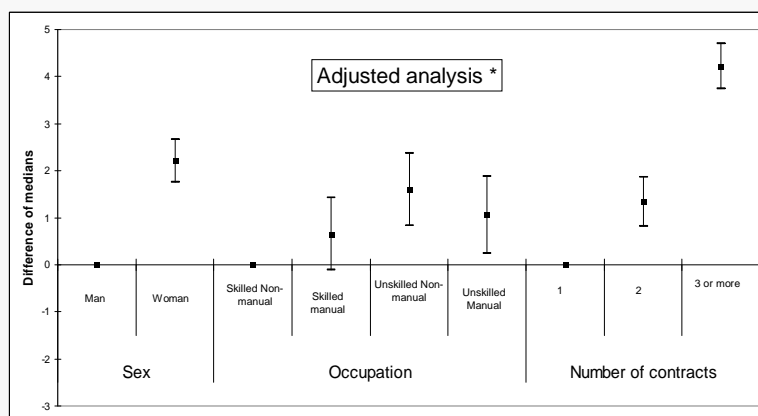
Table 1. Description of PPYLL due to non-work related permanent disability. Description by occupational characteristics.

	Cases	Years	PD age*	P <sub>25</sub>	P <sub>50</sub>	P <sub>75</sub>
Sex						
Man	7,775	88,028.38	53.46	3.77	8.80	16.69
Woman	4,037	52,445.37	51.05	5.07	11.29	19.46
Occupation						
Skilled non-manual	1,006	10,503.74	55.26	3.84	8.55	15.34
Skilled manual	5,411	60,420.83	53.30	3.96	8.96	16.34
Unskilled non-manual	2,950	37,411.02	51.36	4.54	10.59	19.38
Unskilled manual	2,445	32,138.16	51.15	4.33	10.43	20.29
Number of contracts						
1	6,865	73,348.37	54.08	3.85	8.66	15.56
2	2,014	24,849.06	51.70	4.24	9.88	18.67
3 or more	2,933	42,276.33	49.10	4.86	12.45	22.31
Activity (first digits of NACE)						
Agriculture, fisheries and extractive industries	91	1,040.68	53.03	2.81	8.34	18.31
Manufacturing	2,424	26,934.07	53.86	4.57	8.88	15.68
Production and distribution of energy	157	1,944.47	51.43	4.13	11.00	18.47
Building	2,138	24,839.24	52.97	3.35	8.82	17.60
Commerce	1,488	19,976.63	50.52	4.44	10.44	21.26
Catering trade, transport and telecommunications	1,458	17,266.36	51.85	3.89	9.67	18.25
Financial intermediation	162	2,066.64	52.93	8.07	11.66	16.13
Real estate activities	1,311	16,670.72	51.21	4.25	10.92	19.62
Public administration	918	9,663.08	54.37	3.45	8.33	15.91
Education, health activities, community service and activities at home	1,665	20,071.87	52.65	4.75	10.03	17.88
Total	11,812	140,473.75	52.63	4.14	9.55	17.75

\* Median age at the beginning of permanent disability (PD); P<sub>25</sub>: percentile 25; P<sub>50</sub>: median; P<sub>75</sub>: percentile 75

NACE: Statistical Classification of economic activities in the European Communities

Figure 1. Difference in median number of PPYLL due to non-work related PD. Spain, from 2004 to 2009.



\*Adjusted by economic activity.

## Conclusions

- PD is a relevant problem in terms of social security systems and in terms of lost productivity. The PPYLL in the whole of Spain in 2010 was 861,320 years.
- This study found that non work related PD is associated with occupation and number of contracts during the period.
- Women, non-skilled workers and employees that have had more contracts within the period of study are those with greatest loss of PPYLL. This suggests that individuals with poorer working and employment conditions have more PPYLL.