



Bartiméus· fonds
Voor alle mensen die slechtziend of blind zijn



The Labor Market Entry Prospects of People with Visual Impairments

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Background

- UN - Convention on the Rights of Persons with Disabilities
 - Right to participate in labor markets freely and fully
- Visual impairments (VI)
- RQs:
 1. What are the rates of different labour market outcomes for a subpopulation with VI in NL after graduation compared to a matched sample?
 - a. Do changes in a social benefits program affect the uptake of social benefits?
 2. What are the rates of different labour market outcomes as primary sources of income after employment entry for a subpopulation with VI compared to a matched sample?



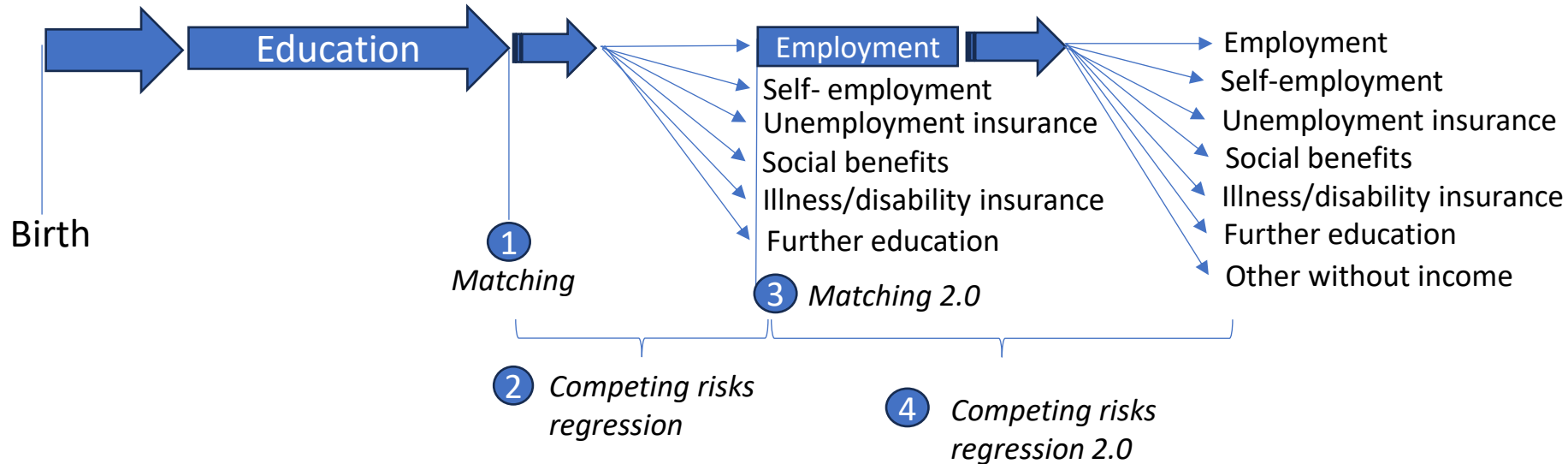
Previous Research

- Employment rates
 - 33% to 77% across studies
 - (Heppe et al., 2023; Goertz et al., 2010; Bell and Silverman 2018)
- Sys Rev -> employment ranging from 33% South Korea to 42% in US
 - (Goertz et al., 2010)
- Comparability issues
 - Conceptualizations
 - Selection effects
- School-to-work transition long lasting economic effects



Methods and Data

Methods in a nutshell



Matching

- 2 matching procedures 1) post graduation 2) post employment entry
- Glm propensity scores nearest neighbor
- Matching variables:
 - 1) gender, 2) migration background, 3) educational background, 4) high school GPA, 5) year of graduation, OR in model post employment entry 5) year of first job entry

Duration Models

- 2 competing risks regression survival analyses; post graduation and post employment entry
- Fine & Grey model
- Covariates: Matching variables + age & higher order polynomials
- Time dependencies similar

Data

- Register microdata from Statistics Netherlands
- Identify VI sub-population
 - VI-specific reimbursements from health insurance data
- Match VI graduates with non-VI graduates from random sample of 2 million from Dutch general population
- Socio-economic categories -> 1) Employment 2) self-employment, 3) unemployment insurance, 4) social benefits, 5) illness/disability insurance, 6) attending further education, 7) others without income

Pre-matching characteristics

	general population sample (n = 309,176)	VI subpopulation (n = 2.412)	Combined	p-value
Year of birth	1985.70	1981.10	1985.66	0.0000
Year of graduation	2012.03	2011.28	2012.02	0.0000
Mean age at graduation (years)	26.33	30.18	26.36	0.0000
Gender (%)				
<i>Female</i>	52.75%	56.05%	52.78%	0.0012
<i>Male</i>	47.25%	43.95%	47.22%	0.0012
Level of education (%)				
<i>Low or no info</i>	6.88%	9.37%	6.89%	0.0000
<i>Middle</i>	44.61%	49.67%	44.65%	0.0000
<i>High</i>	48.51%	40.96%	48.46%	0.0000
GPA (mean. 1-10)	6.53	6.50	6.53	0.60
Migration background (%)				
<i>Netherlands</i>	76.04%	77.40%	76.05%	0.1106
<i>First generation</i>	11.25%	9.25%	11.23%	0.0007
<i>Second generation</i>	12.71%	13.35%	12.72%	0.3596

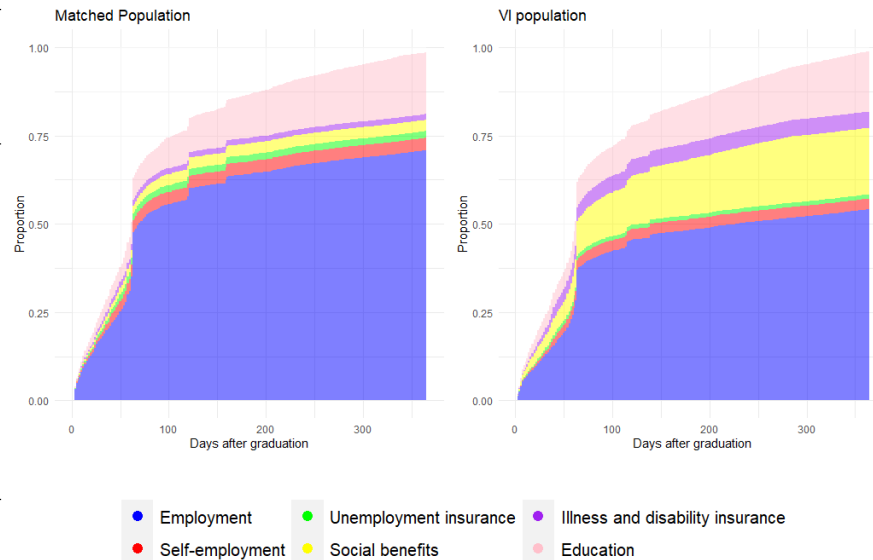
Results

Post-matching characteristics

	Matched sample (n = 2.412)	VI subpopulation (n = 2.412)	Combined	p-value
Year of birth	1983.86	1981.10	1982.48	0.0000 ***
Year of graduation	2011.28	2011.28	2011.28	0.9767
Mean age at graduation (years)	27.42	30.18	28.80	0.0000 ***
Gender (%)				
<i>Female</i>	56.09%	56.05%	56.07%	0.9769
<i>Male</i>	43.91%	43.95%	43.93%	0.9769
Level of education (%)				
<i>Low or no info</i>	9.33%	9.37%	9.35%	0.9606
<i>Middle</i>	49.67%	49.67%	49.67%	1.0000
<i>High</i>	41.00%	40.96%	40.98%	0.9767
GPA (mean. 1-10)	6.50	6.50	6.50	0.9252
Migration background (%)				
<i>Netherlands</i>	77.36%	77.40%	77.38%	0.9726
<i>First generation</i>	9.25%	9.25%	9.25%	1.0000
<i>Second generation</i>	13.39%	13.35%	13.37%	0.9663

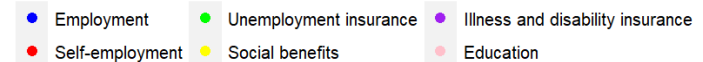
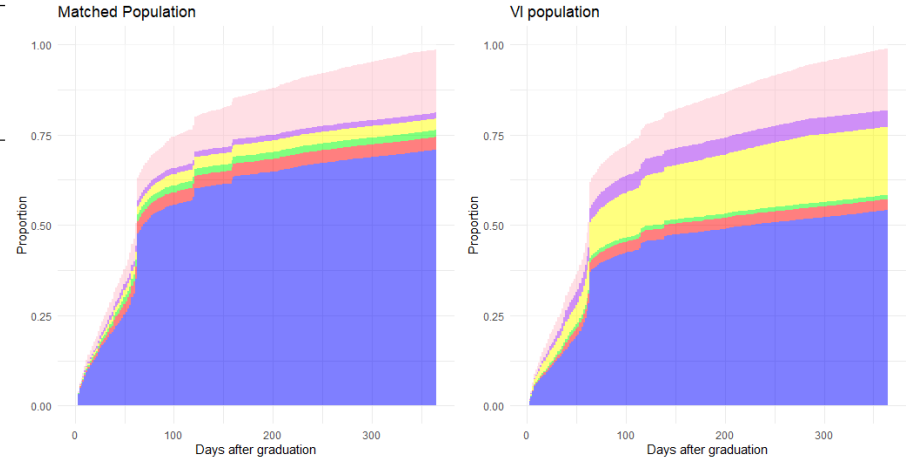
Socio economic outcomes post graduation

	Matched sample (n = 2.412)	VI Subpopulation (n = 2.412)	χ^2	p-value
No change	11.53%	7.22%	23.93	0.000
Employment	65.00%	51.87%	35.89	0.000
Self-Employment	3.23%	2.82%	0.68	0.408
Unemployment insurance	1.29%	1.04%	0.64	0.423
Social benefits	2.78%	17.34%	254.02	0.000
Illness/disability benefits	1.45%	4.32%	34.25	0.000
Attending education	14.72%	15.39%	0.35	0.553
	100.00%	100.00%		



Socio economic outcomes post graduation

	Matched sample (n = 2.412)	VI Subpopulation (n = 2.412)	X ²	p-value
No change	11.53%	7.22%	23.93	0.000
Employment	65.00%	51.87%	35.89	0.000
Self-Employment	3.23%	2.82%	0.68	0.408
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	100.00%	100.00%		



Economic outcome →	(1) Employment		(2) Self-employment		(3) Unemployment insurance		(4) Social benefits		(5) Illness and disability insurance		(6) education	
	B (SE)	p	B (SE)	p	B (SE)	p	B (SE)	P	B (SE)	p	B (SE)	p
Visual impairment	-0.455 (0.038)	0.000 ***	-0.340 (0.170)	0.045 *	-0.296 (0.272)	0.28	2.092 (0.247)	0.0000 ***	0.472 (0.202)	0.0200 *	0.119 (0.074)	0.110

Social Benefits program regimes

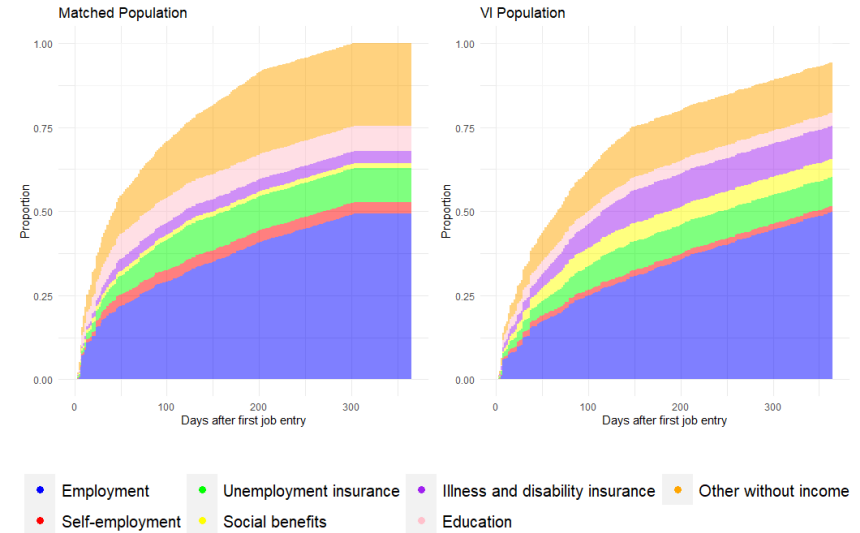
- During observation period policy changes in social benefit program for young people with disability
- Eligibility increasingly stricter
- Changes in 2010 & 2015
- In our data 3 dummies 1) pre 2010, 2) 2010-2015, 3) post 2015

Duration Model 1

Economic outcome →	(1) Employment		(2) Self-employment		(3) Unemployment insurance		(4) Social benefits		(5) Illness and disability insurance		(6) education	
	B (SE)	p	B (SE)	p	B (SE)	p	B (SE)	P	B (SE)	p	B (SE)	p
<i>Visual impairment</i>	-0.455 (0.038)	0.000 ***	-0.340 (0.170)	0.045 *	-0.296 (0.272)	0.28	2.092 (0.247)	0.0000 ***	0.472 (0.202)	0.0200 *	0.119 (0.074)	0.110
					Wajong 2010-2015		0.177 (0.434)	0.68				
					Interaction VI x Wajong 2010-2015		-0.075 (0.432)	0.86				
					Wajong 2015		-0.530 (0.560)	0.34				
					Interaction VI x Wajong 2015		0.127 (0.494)	0.80				

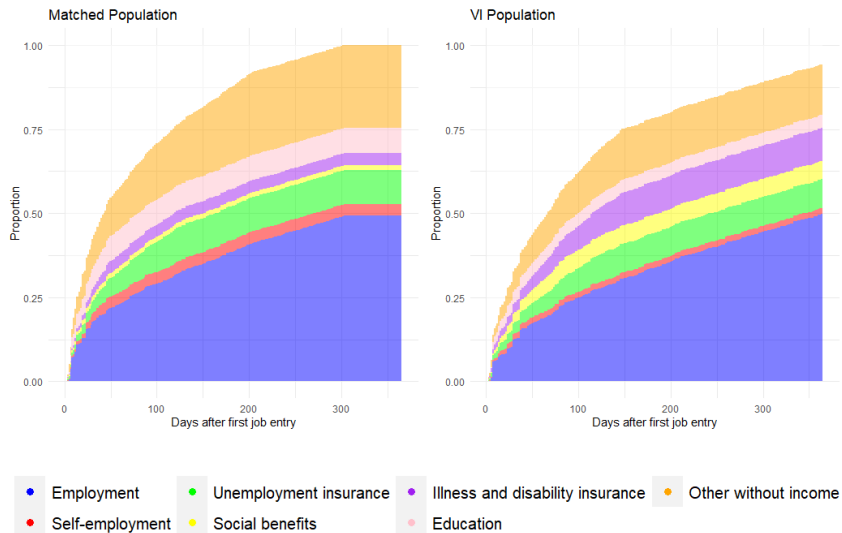
Socio economic outcomes post first employment

	Matched sample (n = 1.252)	VI Subpopulation (n = 1.252)	X ²	p-value
No change	40.10 %	23.56%	53.76	0.000
Employment	29.47%	42.41%	29.16	0.000
Self-Employment	2.08%	1.36%	1.88	0.169
Unemployment insurance	6.07%	6.55%	0.23	0.633
Social benefits	0.89%	4.15%	26.68	0.000
Illness/disability insurance	2.16%	7.51%	37.10	0.000
Attending education	4.78%	3.05%	3.88	0.049
Other without income	14.78%	11.50%	5.11	0.024
	100.00%	100.00%		



Socio economic outcomes post first employment

	Matched sample (n = 1.252)	VI Subpopulation (n = 1.252)	X ²	p-value
No change	40.10 %	23.56%	53.76	0.000
Employment	29.47%	42.41%	29.16	0.000
Self-Employment	2.08%	1.36%	1.88	0.169
Unemployment insurance	6.07%	6.55%	0.23	0.633
Social benefits	0.89%	4.15%	26.68	0.000
Illness/disability insurance	2.16%	7.51%	37.10	0.000
Attending education	4.78%	3.05%	3.88	0.049
Other without income	14.78%	11.50%	5.11	0.024
	100.00%	100.00%		

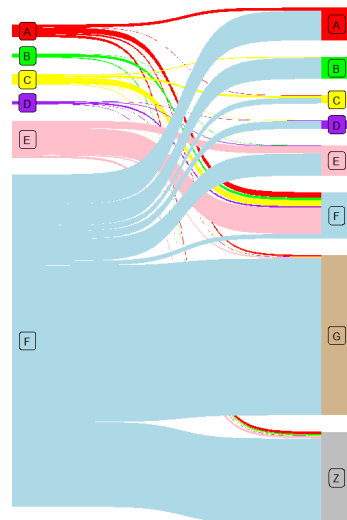


Economic outcome →	(1) Employment		(2) Self-employment		(3) Unemployment insurance		(4) Social benefits		(5) Illness and disability insurance		(6) education		(7) other no income	
	B (SE)	p	B (SE)	p	B (SE)	p	B (SE)	P	B (SE)	p	B (SE)	p	B (SE)	P
Visual impairment	0.073 (0.071)	0.31	-0.974 (0.345)	0.005 **	-0.147 (0.170)	0.390	1.406 (0.336)	0.000 ***	0.667 (0.230)	0.004 **	-0.389 (0.217)	0.073	-0.310 (0.116)	0.007 **

Secondary sources of income of the employed

- More secondary incomes for subpopulation with VI
- More transitions subpopulation with VI

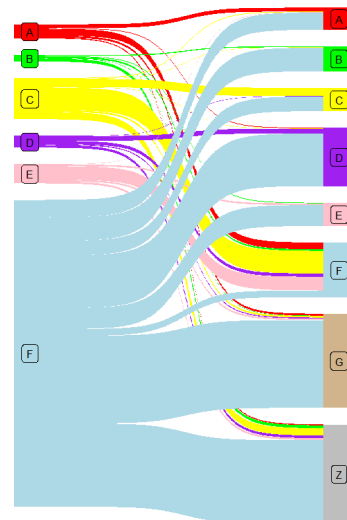
Matched sample



Status 1

Status 2

Declarants with VI



Status 1

Status 2

- A - Self-employment
- B - Unemployment insurance
- C - Social benefits
- D - Illness and disability insurance
- E - Education
- F - No secondary income
- G - No transition
- Z - Out of employment

Discussion And Conclusion

- Model 1 – post graduation
 - Subpopulation with VI lower rates of employment and self-employment
 - Welfare dependency driven by illness/disability insurance & social benefits
 - No differences in unemployment benefits, & education
 - Social welfare reform did not affect social welfare uptake
 - Similar time dynamics for both groups

- Model 2 – post employment entry
 - No group difference in maintaining employment as main source of income; neither for unemployment insurance & education
 - Emphasizes importance successful school-to-work transition
 - VI shift less into self-employment as main source of income
 - Overrepresentation of illness and disability insurance and social benefits for VI remained
 - Matched sample overrepresented
 - in other without income
 - More transitions in VI
 - Difficulty maintaining job?



Thank you!

Questions and Inputs?

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