

Poverty After 50 in Canada: A Recent Snapshot

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The many faces of inequality: from measurement to policy

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Trends in poverty rates among elderly



Figure: Low-income rates among seniors (65 years old or older) 1976 to 2009, Statistics Canada. Source: Survey of Consumer Finances (1976 to 1995) and Survey of Labour and Income Dynamics (1996 to 2009)

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Prevention of elderly poverty relies heavily on public pensions.

- As the fraction of elderly grows, more pension spending may be required to keep the elderly out of poverty.
- Therefore, it is important to understand who the elderly poor are, and how public pensions affect poverty.
- It is important to assess how public pension provision affects poverty rates and dynamics.

Why the study of poverty among the aged is of interest [2]



Figure: Exit rates from poverty by time spent in poverty with LIM measure. Authors' computations. Source: Longitudinal and International Study of Adults (LISA). 2001-2014.

Our Study



Analyze

- determinants of poverty
- persistence of poverty
- dynamics of poverty
- with particular attention to
 - individuals older than 50
 - the role of public pensions.

Data: Longitudinal and International Study of Adults



- ► We use the first two waves of LISA: 2012 and 2014. This contains information on individual income, health status, and demographics (education, civil status...).
- We use the retrospective component of LISA based on administrative data sources (T1 and T4 files) to get information on individuals' history of earnings.
- We do not have information about the family structure in the retrospective component of LISA.
- Because of the availability of the poverty information, we use data since 2001.

In this presentation: Relative Poverty Measure



 LIM: defined as 50% of median after-tax family income adjusted for the family size.



Age		Education		Residence	
15-24	17.2	no diploma	16.0	rural area	7.8
25-34	9.6	high school	10.1	pop 500,000+	9.8
35-49	8.2	some college	7.0	Family	
50-64	8.9	university	4.8	living alone	16.4
65+	4.8	Labour Force		lone parent	25.5
Sex		employed	5.6	couple w/o children	3.4
male	8.2	unemployed	22.8	couple w children	6.2
female	9.7	not labour force	14.5	Health	
		retired	7.4	excellent	6.8
				just good	9.0
				fair or poor	18.8

Distribution of years spent in poverty



Distribution of years spent in poverty for different age groups for those who were poor at least once

Age	15-24	25-34	35-49	50-64	65+	Total
1 year poor	45.46	39.43	40.69	31.71	30.54	38.08
2-3 years poor	36.23	33.25	26.18	27.29	21.89	29.15
4-5 years poor	12.95	13.69	12.65	11.02	14.42	12.82
more than 5 years poor	5.36	13.63	20.48	29.98	33.14	19.95
Total	100	100	100	100	100	100

- These numbers thus reflect a combination of persistence and recurrence of poverty.
- Older people clearly have spent more years in poverty over the sample.

Key Determinants of Poverty at Older Ages



	Dependent variable: poor today				
	all	50+	all	50+	
25-34	-0.014		-0.011		
	(0.010)		(0.008)		
35-49	-0.033***		-0.027***		
	(0.009)		(0.008)		
50-64	-0.054***		-0.044***		
	(0.009)		(0.008)		
65+	-0.124***	-0.090***	-0.020	0.022	
	(0.009)	(0.008)	(0.025)	(0.021)	
Unemployment	0.103***	0.071***	0.103***	0.069***	
	(0.012)	(0.021)	(0.012)	(0.020)	
Not in LF	0.127***	0.094 ***	0.127***	0.094***	
	(0.008)	(0.008)	(0.008)	(0.009)	
Retired	-0.031***	-0.032***	-0.030***	-0.047***	
	(0.007)	(0.007)	(0.012)	(0.016)	
Public			-0.107***	-0.144***	
Pension			(0.015)	(0.026)	
Retired			-0.118***	-0.159***	
\times Pub Pension			(0.013)	(0.024)	
N	38,696	17,938	38,696	17,938	
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Key Determinants of Poverty at Older Ages



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- It shows that levels of poverty are lower for men, for individuals with higher levels of education, and for those living with a partner. They are higher for lone parent families, which are mostly headed by women.
- Age also is an important correlate of poverty: poverty rates are lower for those over 65.
- For working age individuals, unemployment is an important determinant of poverty.
- For middle aged and older individuals, for who unemployment spells last longer, unemployment implies a substantial hit to income, putting them at risk of poverty.

The Role of Public Pensions [1]



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(a) Shares of income: non-poor





(c) Income composition: poor $\Box \rightarrow \langle \Box \rangle \rightarrow \langle \Xi \rangle \rightarrow \langle \Xi \rangle \rightarrow \Xi \rightarrow \langle \Box \rangle$

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The Role of Public Pensions [2]



Public pension = Old Age Security Pension + Guaranteed Income Supplement + Spouse's allowance.

Results show that the lower poverty rate among individuals over 65 is entirely driven by the receipt of public pensions: the coefficient on public pensions is negative and large in absolute value, and including it reduces the coefficient on the age 65+ group by an almost equivalent amount, making it statistically indistinguishable from zero.

Distribution of average career earnings (ages 25 to 64)



- The elderly poor on average had career earnings that were \$18,600 per year lower.
- Among the elderly poor, 50% had average career earnings below \$10,600, compared to 16% among the non-poor.

Poverty persistence and age: demographics matter



Dependent variable:	poor $>=1$ years		poor $>=5$ years		poor >=5 years if ever poor	
25-34	0.195***	0.270***	0.045***	0.077***	0.081***	0.137***
	(0.020)	(0.019)	(0.007)	(0.009)	(0.018)	(0.020)
35-49	0.097***	0.170***	0.057***	0.088***	0.153***	0.201***
	(0.016)	(0.015)	(0.007)	(0.008)	(0.020)	(0.020)
50-64	-0.006	0.054***	0.053***	0.062***	0.218***	0.185***
	(0.015)	(0.015)	(0.006)	(0.006)	(0.021)	(0.020)
65+	-Ò.049*́*	-0.003	0.059***	0.037***	0.305***	0.172***
	(0.016)	(0.019)	(0.007)	(0.007)	(0.028)	(0.031)
demographics	no	yes	no	yes	no	yes
N	18477	18408	18477	18408	4928	4916

- The old face lower probability of ever being poor, but longer spells if they are poor.
- Part of this is not attributable to age directly, but to characteristics that come with their age and cohort: lower education, worse health, lower rates of labor force participation.

Poverty dynamics: entry into poverty (2012-2014)



sample:	all sample	+50
25-34	-0.012	
	(0.011)	
35-49	-0.026 ***	
	(0.009)	
50-64	-0.034 ***	
	(0.009)	
65+	-0.055 ***	-0.026 *
	(0.015)	(0.014)
Worse health	0.016**	0.019**
	(800.0)	(0.010)
Lost job	0.045**	0.038
	(0.019)	(0.029)
Leave LF	-0.017 ***	-0.016***
	(0.005)	(0.003)
Retiring	0.02	0.005
	(0.018)	(0.009)
Receiving public pension	0.004	0.002
	(0.020)	(0.014)
Ν	19741	6565

Poverty dynamics: entry into poverty



- Entry rates decline in age, even when controlling for demographics and events.
- Entry less likely for: more educated, men, poor health.
- Negative life events raise the probability of entry.
- Currently receiving a public pension does not reduce the entry probability.

Poverty dynamics: exit from poverty (2012-2014)



sample:	all sample	+50
25-34	0.069	
	-0.065	
35-49	-0.04	
	(0.056)	
50-64	-0.157 **	
	(0.052)	
65+	0.064	0.196***
	(0.074)	(0.065)
Health improvement	-0.016	0.034
	(0.049)	(0.062)
Finding job	0.139**	0.231 **
	(0.064)	(0.131)
Retiring	-0.102	-0.076
	(0.090)	(0.086)
Receiving public pension	0.338***	0.326 ***
	(0.085)	(0.093)
Retiring $ imes$ public pension	0.253	0.279
	(0.172)	(0.176)
Ν	1140	439

Poverty dynamics: exit from poverty



- ► The exit probability is lowest for those aged 50-64.
- It increases with education.
- Finding a job raises the exit probability.
- Beginning to receive a public pension strongly raises the exit probability.

Robutness [1]: Different Poverty Measures



- Absolute measures:
 - MBM: Low-income households are those that lack the disposable income to purchase the goods and services in the basket that represents the consumption of a standard family.
 - LICO: income thresholds below which a family will likely devote a large share of its income on the necessities of food, shelter and clothing.
- Subjective measures: based on survey questions in which individuals are asked about their expected standard of living when retired.



- Number of years in poverty over the studied period.
- Number of poverty spells, length of these spells.
- 'Period-to-period transitions in poverty status': poverty is considered to be more persistent if it is more likely for individuals to be poor in the current period if they were already poor in the previous period.

Conclusion



- Poverty rates are lower for the old.
- ► Dynamics:
 - ► The 50-64 year old have lower exit rates from poverty.
 - ► The 50+ have lower entry rates.
 - The lower entry rates dominate in terms of levels.
- Public pensions
 - explain the lower level of poverty among the old and
 - raise the probability of exit from poverty.
 - They do not affect the entry probability.
- Persistence of poverty:
 - ▶ The old (50+) are less likely to enter poverty,
 - but more likely to have a long spell conditional on entry.
 - This is driven by worse characteristics of the old (education, health, unemployment).