

Not so super? An analysis of the Early Release of Superannuation Program

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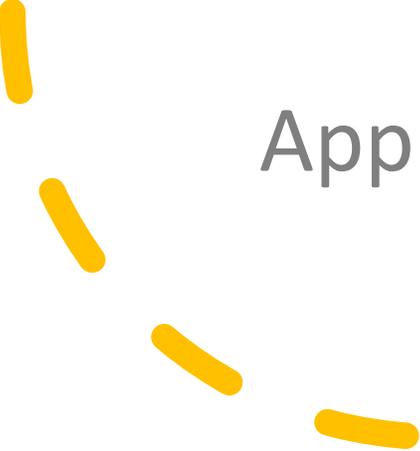
Setting the stage

- COVID pandemic
- Coronavirus Economic Response Omnibus Package - Schedule 13, announced 22nd of March, 2020
- Individuals experiencing financial stress allowed to withdraw \$10,000 in the 2019-20 tax year, and a further \$10,000 in the 2020-2021 tax year to Dec 31st



4.6M

Applications processed for early withdrawal



72.3%

Withdrew maximum \$10,000 amount in Period 1

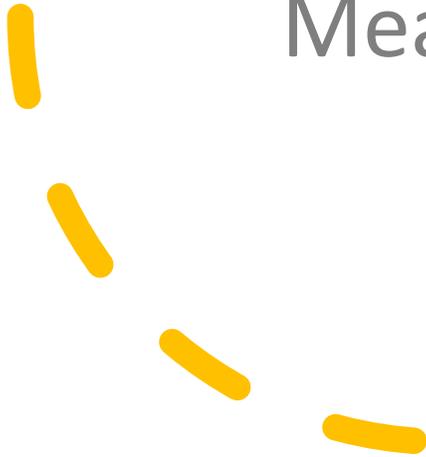
Superannuation – the 4-1-1

- Since 1992, the Australian Government has compelled employers to make contributions to retirement savings on behalf of employees
- Four primary fund types:
 - Industry
 - Retail
 - Corporate
 - Public sector



\$82,325 *Vs.* \$252,154

Mean balance industry vs. public sector funds





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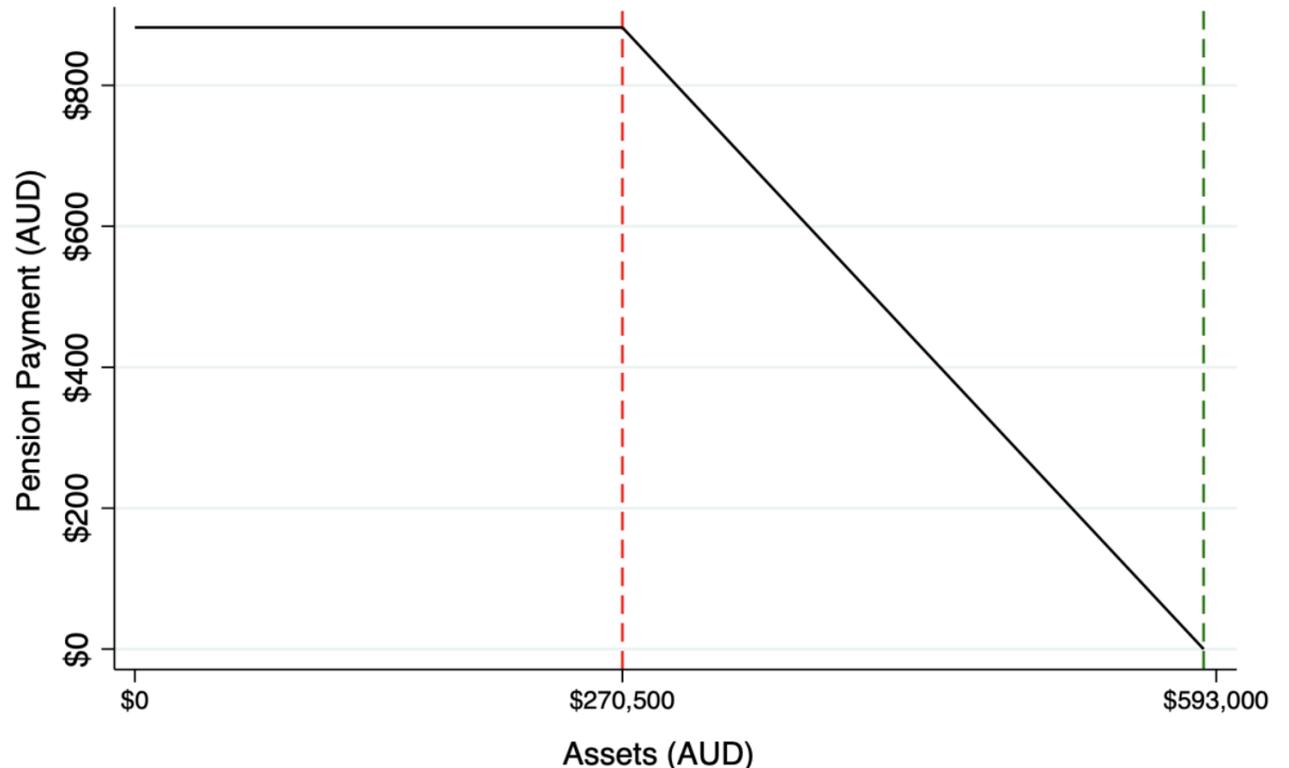
Of top 15 funds by proportion of members withdrawing are industry super funds



Age Pension

- Underpins Australia's retirement system
- Subject to an income test and an asset test
- 2.6M Australians receive it
- Cost forecast to rise from \$50 to \$72 billion by 2025-6

Asset Threshold Effect on Pension (Single Homeowner)



Source: Australian Taxation Office, 2022

Literature Review

Retirement Savings Literature



- People are present-biased (Donoghue & Rabin, 1999) → governments must intervene (Schooley-Pettis, 2013)
- Grattan Institute - \$24,000 loss in present-value real terms for 35-year-old withdrawing \$20,000

Economic stimulus



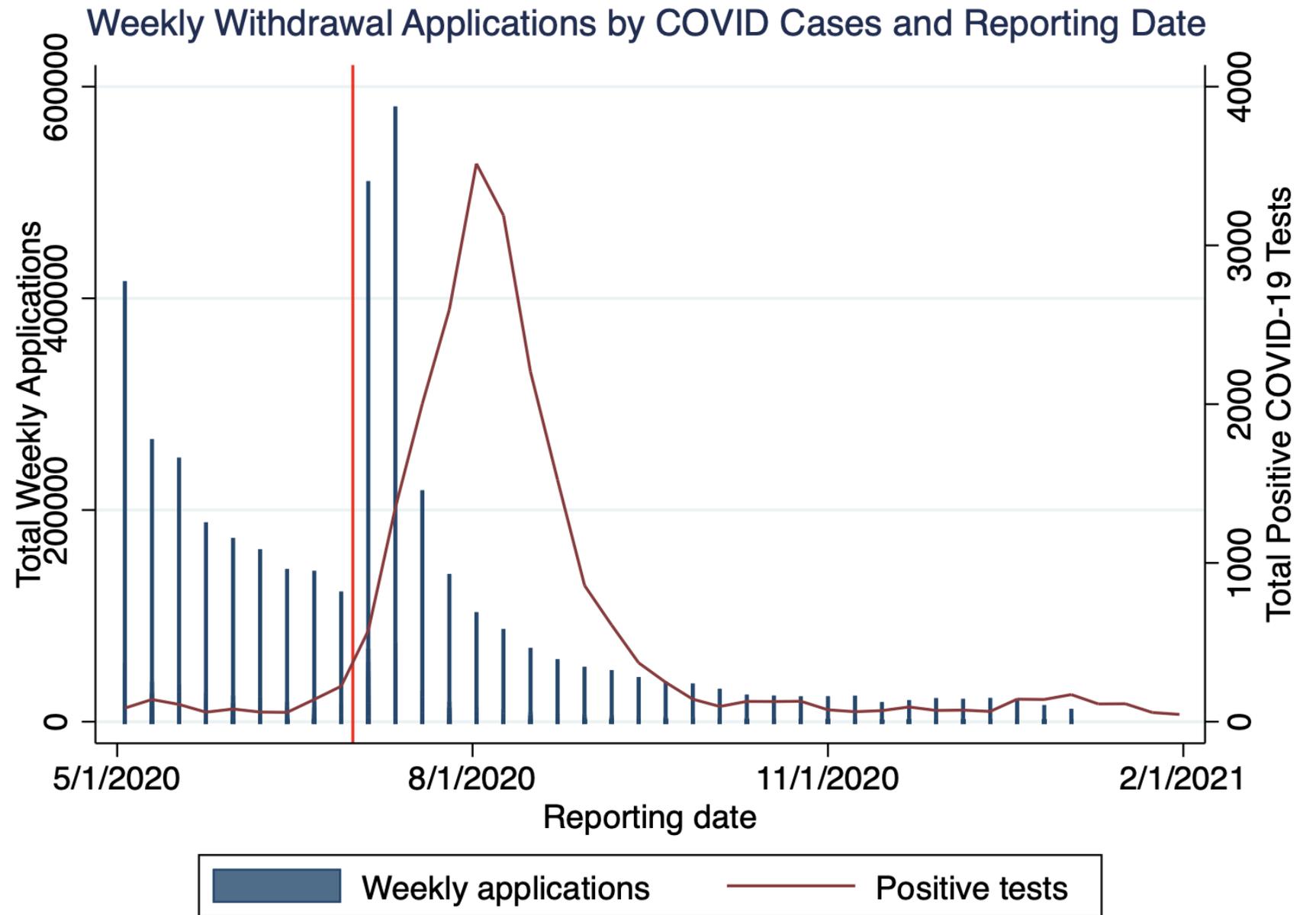
- Stimulating aggregate demand is key to recovery from economic downturns (Furman, 2008)
- MPC
- Feldstein Unemployment Insurance Savings Accounts (1998)



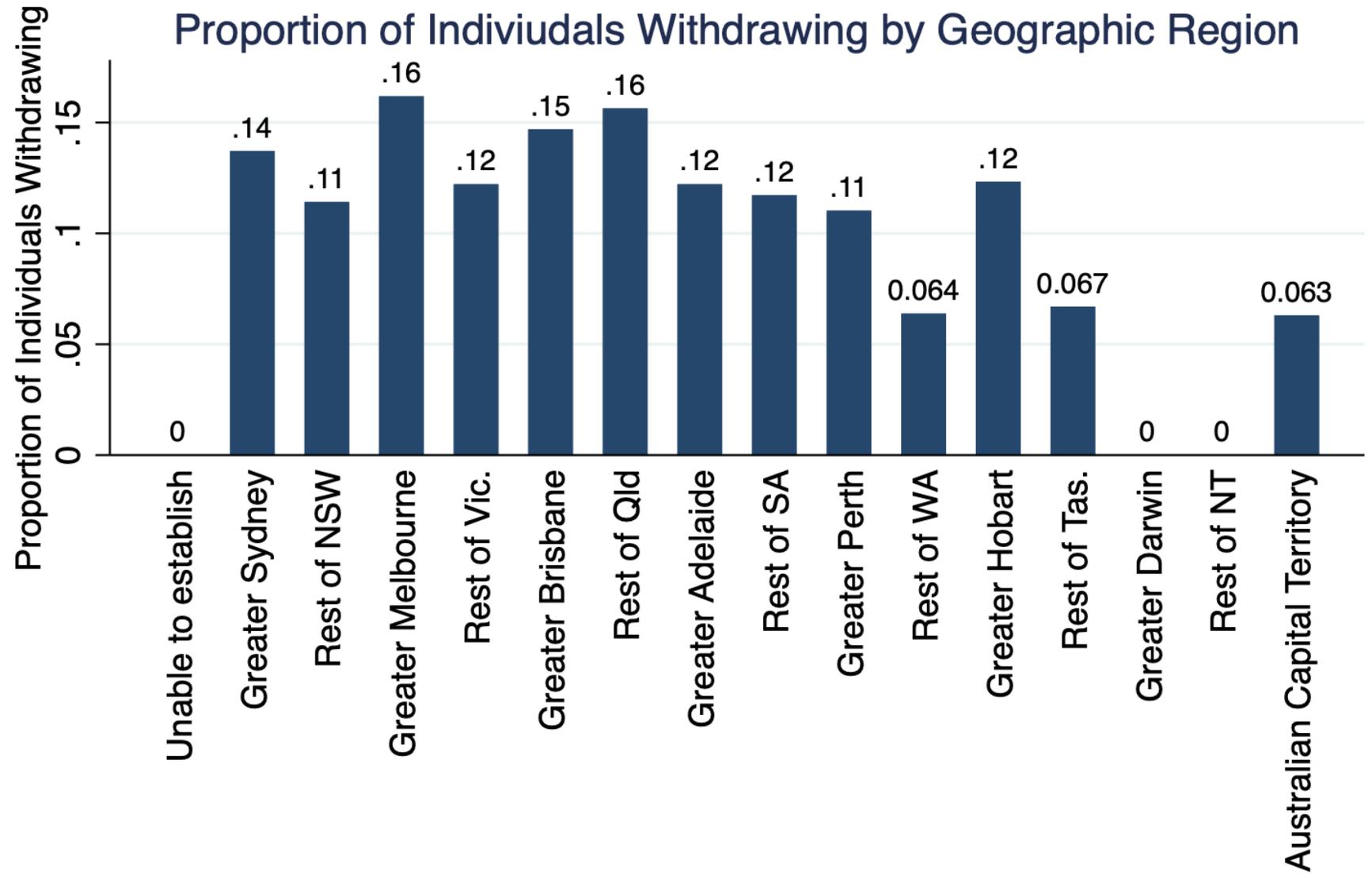
Key Questions

1. Who withdrew and why?
 2. What are the long-term consequences of early withdrawal for individuals and the fiscal obligations of the state? and
 3. do there exist alternative policy measures that would have been more cost-effective in addressing the needs for which the programs were initially implemented?
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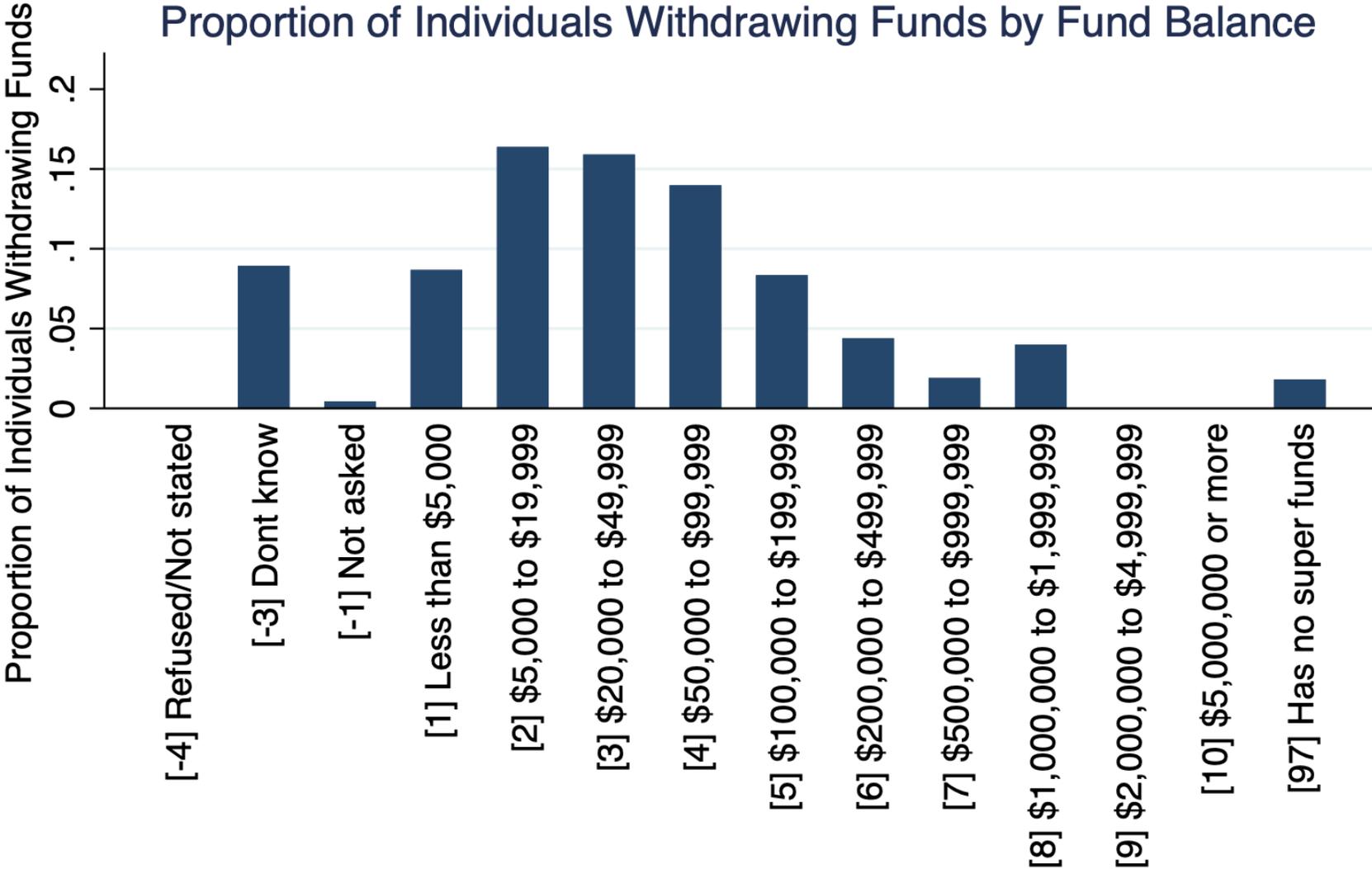
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Source: Household Income and Labor Dynamics Survey Australia, 2018-20

Methodology

- HILDA 2018-2020
- Project consequences of withdrawing at 25, 35, 45 and 55
- Asset levels of \$0, \$50K, \$100K, \$200K, \$250K
- Income at the 25th, 50th and 75th percentiles
- Government borrowing rate of 0% to 3% in steps of 0.5%
- Fund growth rates of 4.5% to 7.5% in steps of 1%

Methodology

The balance in 2019 is given by:

$$B_{t=2019} = B_{t-1} * (1 + g) + (p * i_{t=2019} * (1 - d) * (1 + g)) - (f * B_{t-1})$$

- Where B is the balance value at time t (where t is a calendar year), g is real fund return rate, which I assume to be 5.5% and unchanging throughout the analysis (Drury, 2022), p is the superannuation percentage defined at 9.5%, i is income at age in time t, d is the taxation rate on superannuation deposits defined at 15%, and f is fund fee defined at 1%.

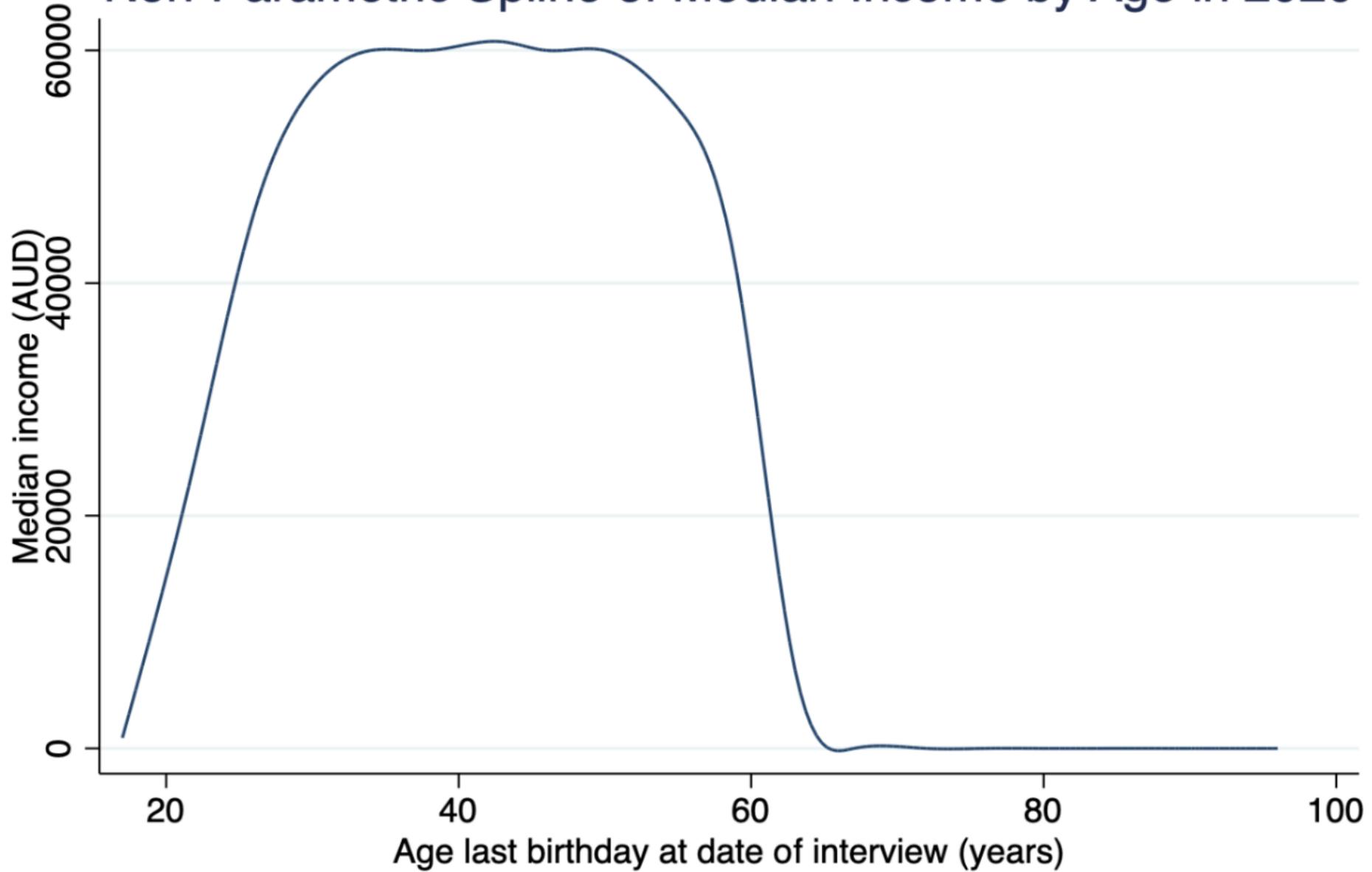


The balance B at time $t = 2020$ is found similarly, but the income is taken at time t_{2020} as follows:

$$B_{t=2020} = B_{t-1} * (1 + g) + (p * i_t * (1 - d) * (1 + g)) - (f * B_{t-1}) - WA$$

Where B is the balance value at time t (where t is a calendar year), g is real fund return rate, which I assume to be 5.5% and unchanging throughout the analysis (Drury, 2022), p is the superannuation percentage defined at 9.5%, i is income at *age* in time t , d is the taxation rate on superannuation deposits defined at 15%, f is fund fee defined at 1%, and WA is amount withdrawn [0, \$10,000, or \$20,000].

Non-Parametric Spline of Median Income by Age in 2020



Source: Household Income and Labor Dynamics Survey Australia, 2020 [Released December 2021]


$$B_t = B_{t-1} * (1 + g) + (p_t * i_t * (1 - d) * (1 + g)) - (f * B_{t-1})$$

if $a_t < 67$

Where B is the balance value at time t (where t is a calendar year), g is real fund return rate, which I assume to be 5.5% and unchanging throughout the analysis, p is the superannuation



percentage defined at time t , i is income at time t , d is the taxation rate on superannuation

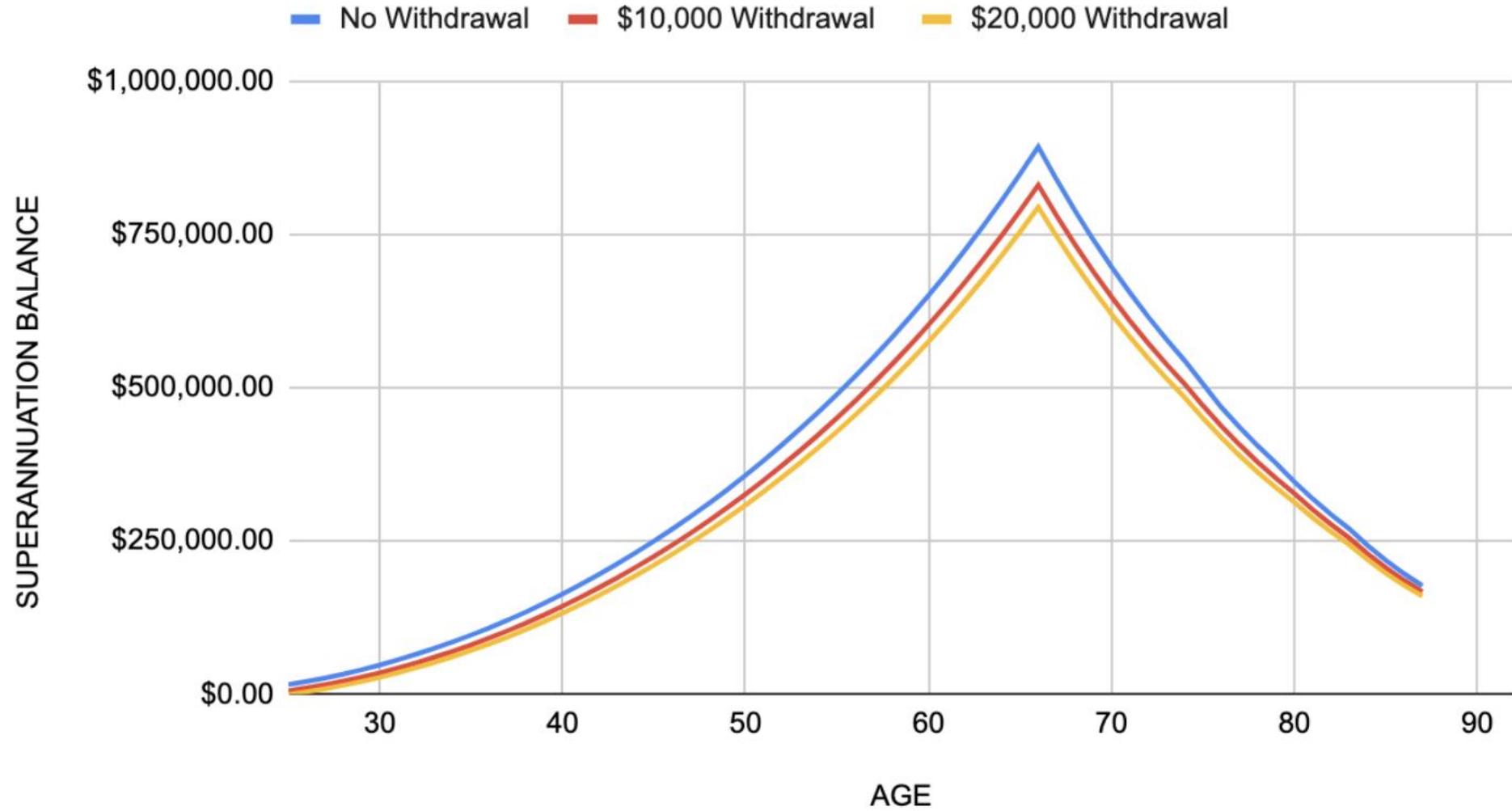


deposits defined at 15%, f is fund fee defined at 1% of balance, and a is age at time t .

Table 1. Table of Key Model Assumptions

Median retiree assets	\$74,058 (Department of Social Services, 2020)
Government borrowing rate	1 per cent
Super fund growth rate	5.5 per cent (Drury, 2022)
Age of death	92 (Coates and Nolan, 2020)
Wage growth	Varies [-1.5 per cent to 3 per cent]
Fund fees	1 per cent

Superannuation Balance Given Withdrawal at Age 25



		IMPACT OF SUPERANNUATION WITHDRAWAL – MEDIAN INCOME AT AGE, 5.5% GROWTH, 1% GOVERNMENT BORROWING RATE							
		25 Y.O.		35 Y.O.		45 Y.O.		55 Y.O.	
		Withdrawal		Withdrawal		Withdrawal		Withdrawal	
Assets	Impact	10K	20K	10K	20K	10K	20K	10K	20K
0K	Pension Impact	\$11,875.82	\$20,135.86	\$12,125.83	\$25,750.20	\$9,801.42	\$19,034.81	\$0.00	\$0.00
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$50,578.45	-\$78,239.11	-\$27,012.75	-\$52,526.95	-\$15,400.99	-\$31,370.01	-\$25,852.03	-\$41,381.73
50K	Pension Impact	\$10,431.92	\$18,234.76	\$10,607.33	\$23,351.88	\$11,630.87	\$23,015.88	\$1,840.98	\$190.14
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$52,022.34	-\$80,140.20	-\$28,531.24	-\$54,925.27	-\$13,571.54	-\$27,388.95	-\$24,011.05	-\$41,191.59
MEDIAN	Pension Impact	\$9,830.25	\$17,001.71	\$9,881.49	\$22,267.98	\$12,635.63	\$24,982.25	\$2,815.65	\$2,830.15
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$52,624.01	-\$81,373.25	-\$29,257.09	-\$56,009.17	-\$12,566.78	-\$25,422.58	-\$23,036.38	-\$38,551.57
100K	Pension Impact	\$9,440.94	\$16,306.57	\$9,288.27	\$20,854.87	\$13,148.15	\$26,580.58	\$6,404.52	\$8,664.52
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$53,013.32	-\$82,068.39	-\$29,850.31	-\$57,422.28	-\$12,054.26	-\$23,824.24	-\$19,447.51	-\$32,717.20
200K	Pension Impact	\$6,667.90	\$12,125.67	\$6,576.43	\$16,016.22	\$10,408.49	\$22,387.23	\$17,503.70	\$27,387.89
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$55,786.36	-\$86,249.30	-\$32,562.14	-\$62,260.93	-\$14,793.92	-\$28,017.60	-\$8,348.33	-\$13,993.84
250K	Pension Impact	\$5,051.37	\$9,175.61	\$4,852.61	\$12,163.15	\$8,198.01	\$17,893.52	\$20,246.27	\$32,316.32
	Super Balance Impact	-\$62,454.26	-\$98,374.96	-\$39,138.57	-\$78,277.15	-\$25,202.41	-\$50,404.82	-\$25,852.03	-\$41,381.73
	Total Impact	-\$57,402.89	-\$89,199.36	-\$34,285.96	-\$66,114.00	-\$17,004.40	-\$32,511.30	-\$5,605.76	-\$9,065.41

Takeaways

- In almost all cases, except for those age 55 years old with over 200K in assets, people stand to lose more than they gain
- Depending on fund growth rates, this be a loss of up to 12.6x the withdrawn amount