Bequests in NTA

Notes for discussion

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Shall we care about bequests in NTA flows?

- NO: they are rare events (nil transfer-ins) that have little to do with funding the LCD
- YES: They are high transfer-outs at old ages, they may be an important component of generational transfers

More rationales for doing bequests

- To understand high income asset at early ages in some countries
- To understand generational savings and dis-savings
- To complete the picture of generational transfers, even if bequests don’t fund the LCD
- Bequests are rare events involving perhaps 1%-2% of GDP, but they will growth substantially with population ageing

We need a bequest age matrix

Death' ages	Heirs ages																		No heirs	Total Beq. Out*
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	….		
100																				
95																				x
90																				X
85																				XXX
80																				XXXX
75																				XXXX
70																				XXX
65																				XX
60																				X
55																				X
….																				
Total	Bequest in transfers																			

* Age profile given by deaths and asset ownership age profiles
level given by the amount of assets owned by the dead (< or = survivors)
How to deal with life insurance, trust funds, and no heirs

Estimating bequests-out by age *a:*

$$N_a \; m_a \; \left(YA_a \; / \; r \right)$$

Population

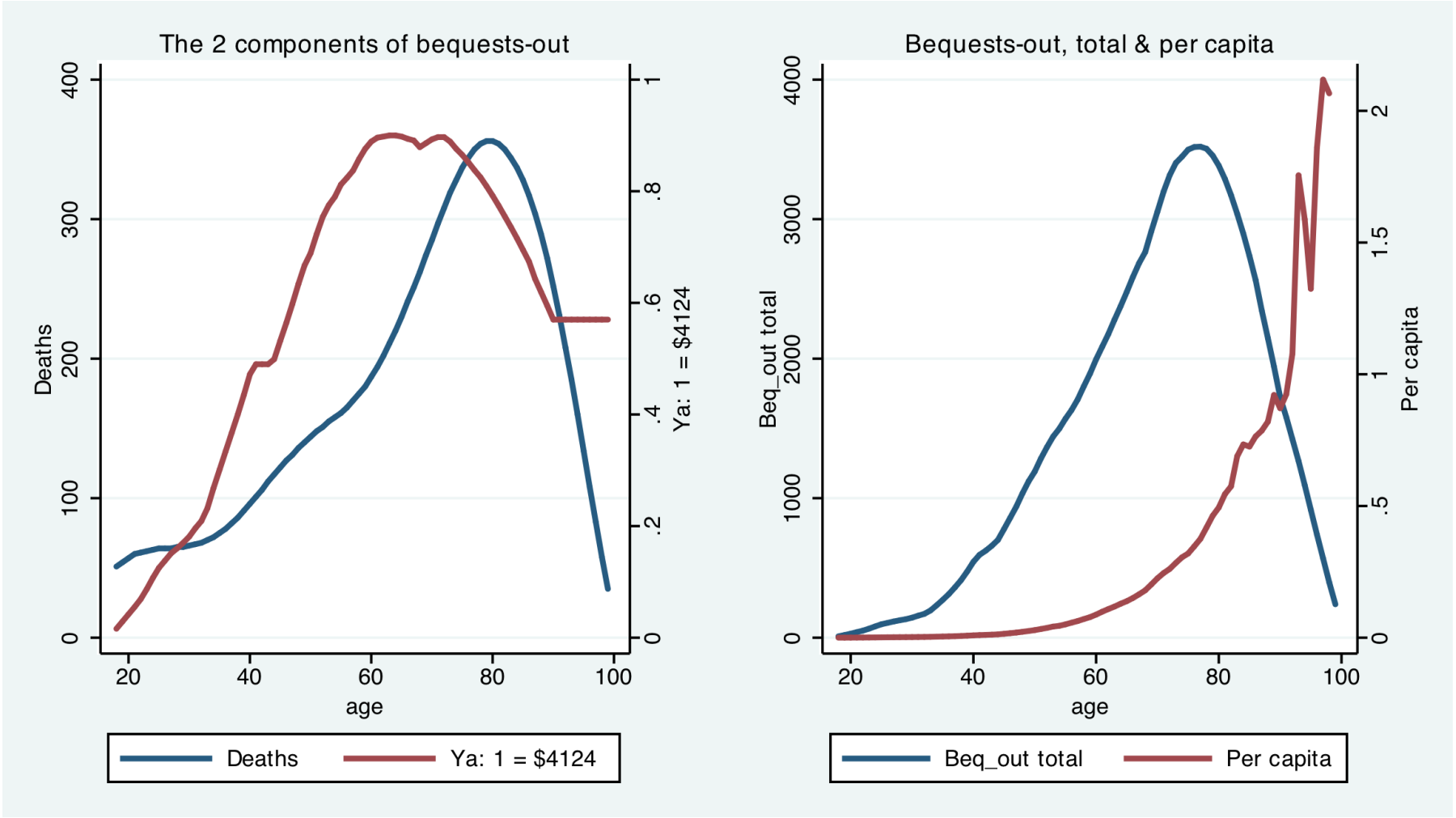
Death rate

Asset income

Return rate

use external data on assets of dying people (?)

Bequest-out transfer estimate. Costa Rica 2004



Mean bequest = 7.8 IU per death, 0.029 IU per inhabitant (r=.08)

Bequest-in age-pattern estimates

- Direct survey or administrative data about inheritances (hard to find)
- Indirect data or models to distribute bequest-out estimates:
  - Simplest model 1: constant age difference
  - Estimate 2: distribute inheritance among HH co-residents of the death (micro level)
  - Use data from ageing survey plus “exit interviews”

Bequest-in simplest model (1)

Deads' ages	Heirs ages																		No heirs	Total Beq. Out
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	....		
100							X													
95								X												x
90									X											X
85										X										XXX
80											X									XXXX
75												X								XXXX
70													X							XXX
65														X						XX
60															X					X
55																X				X
....																				
Total	Bequest in transfers																			

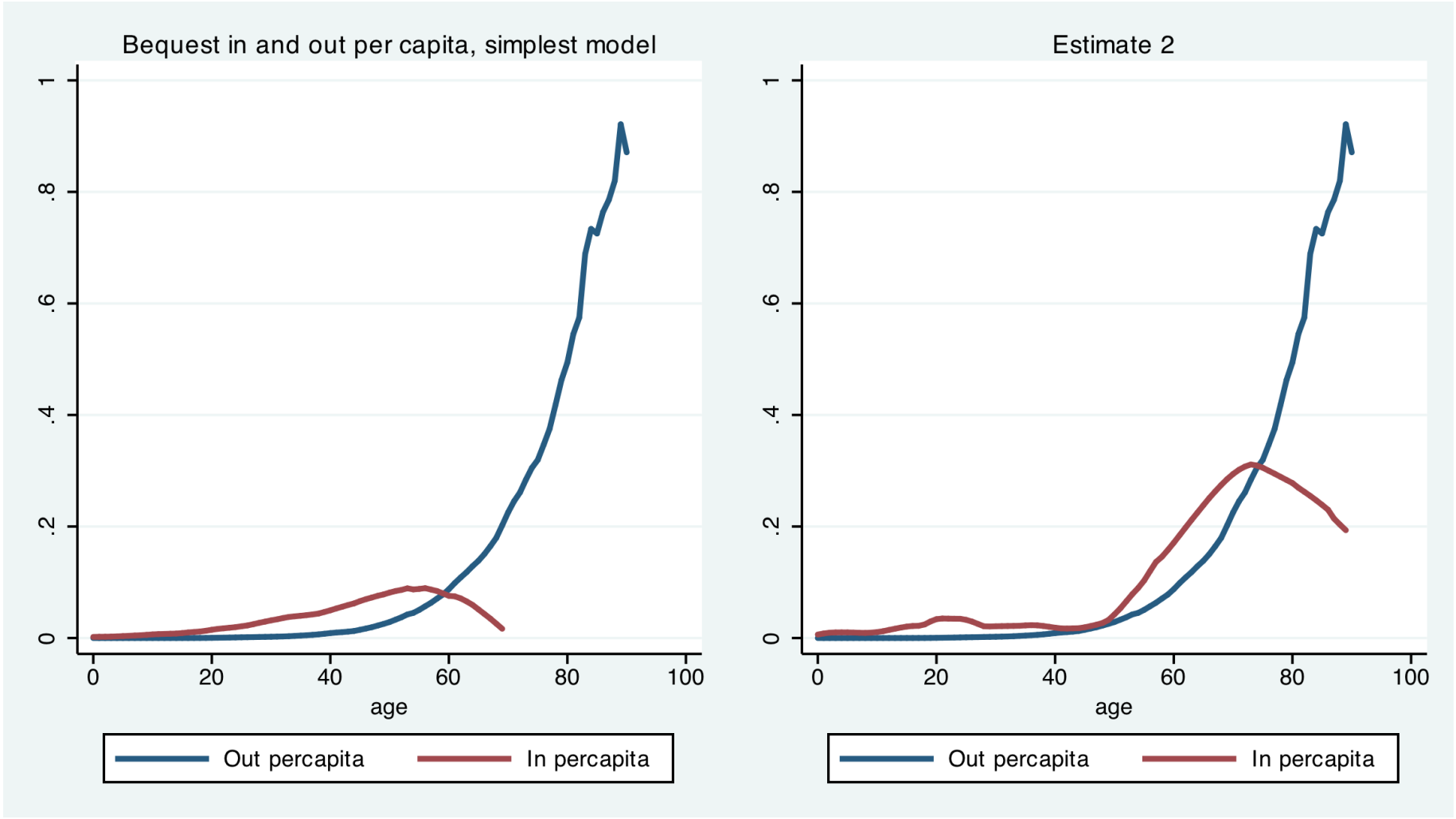
Bequest in transfer: no variance and constant age difference (e. g. 30 years)

Bequest-in estimate 2

Deads' ages	Heirs ages																		No heirs	Total beq. Out
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	….		
100		*					X						x							
95			*					X						x						x
90				*					X						x					X
85					*					X						x				XXX
80						*					X						x			XXXX
75							*					X								XXXX
70								*					X							XXX
65									*					X						XX
60										*					X					X
55											*					X				X
….																				
Total	Bequest in transfers																			

Bequest in transfer: proportionally among HH members
Usually: * = spouse, * = children, and x = grandchildren

Bequest-out/in transfer estimates



Data from CRELES: a longitudinal ageing survey in Costa Rica

- About 520 deaths in 3000 people 60+
- Information on:
  - Asset value (inheritance) – beq_out
  - Heirs (who inherit) – beq_in
  - Only about 190 had assets
  - Info about heirs for 170

Assets of the death (bequest-out):

About half value of NTA estimates

Most have zero assets

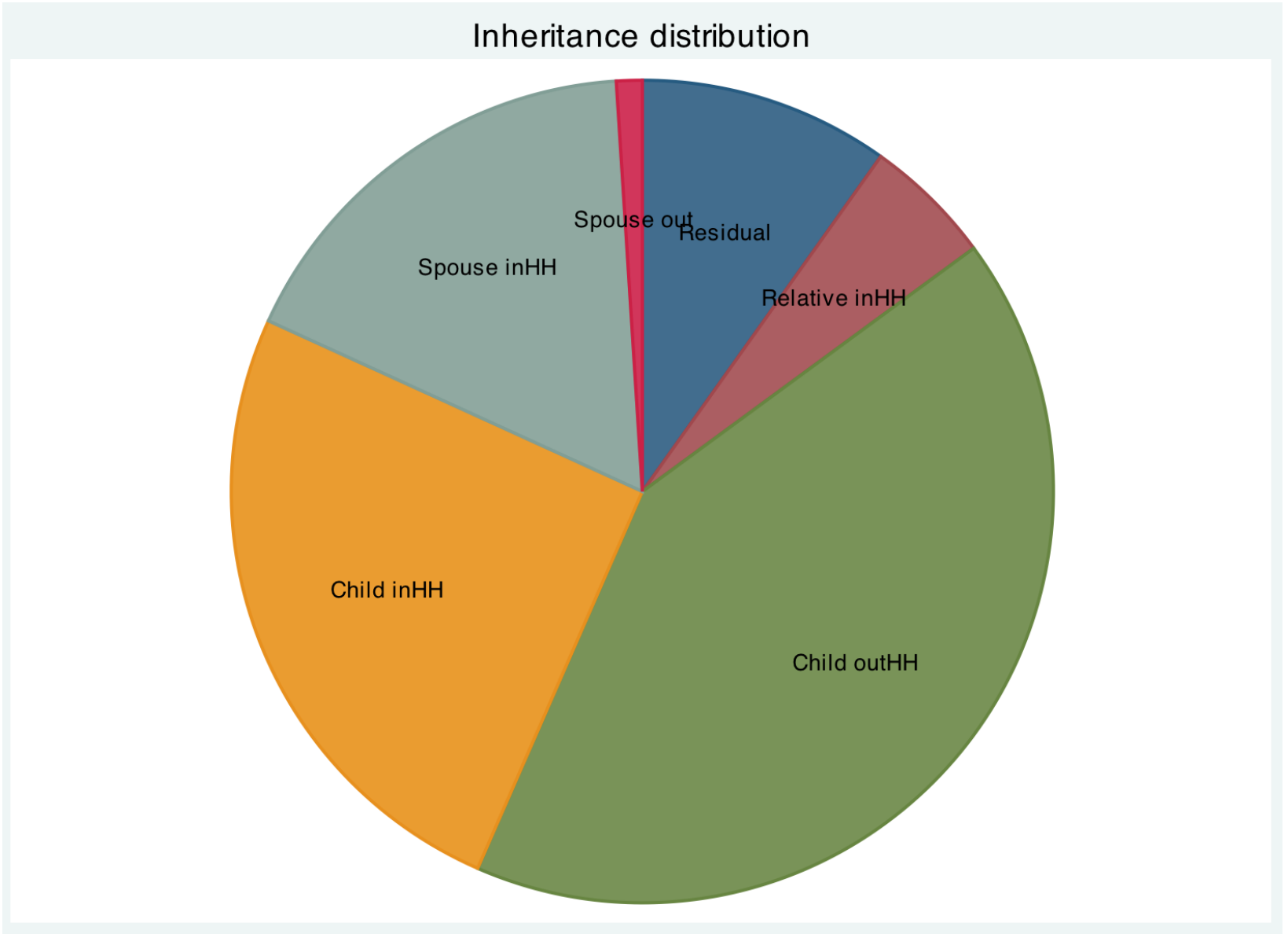
Have-nots increase with age

Asset value constant with age

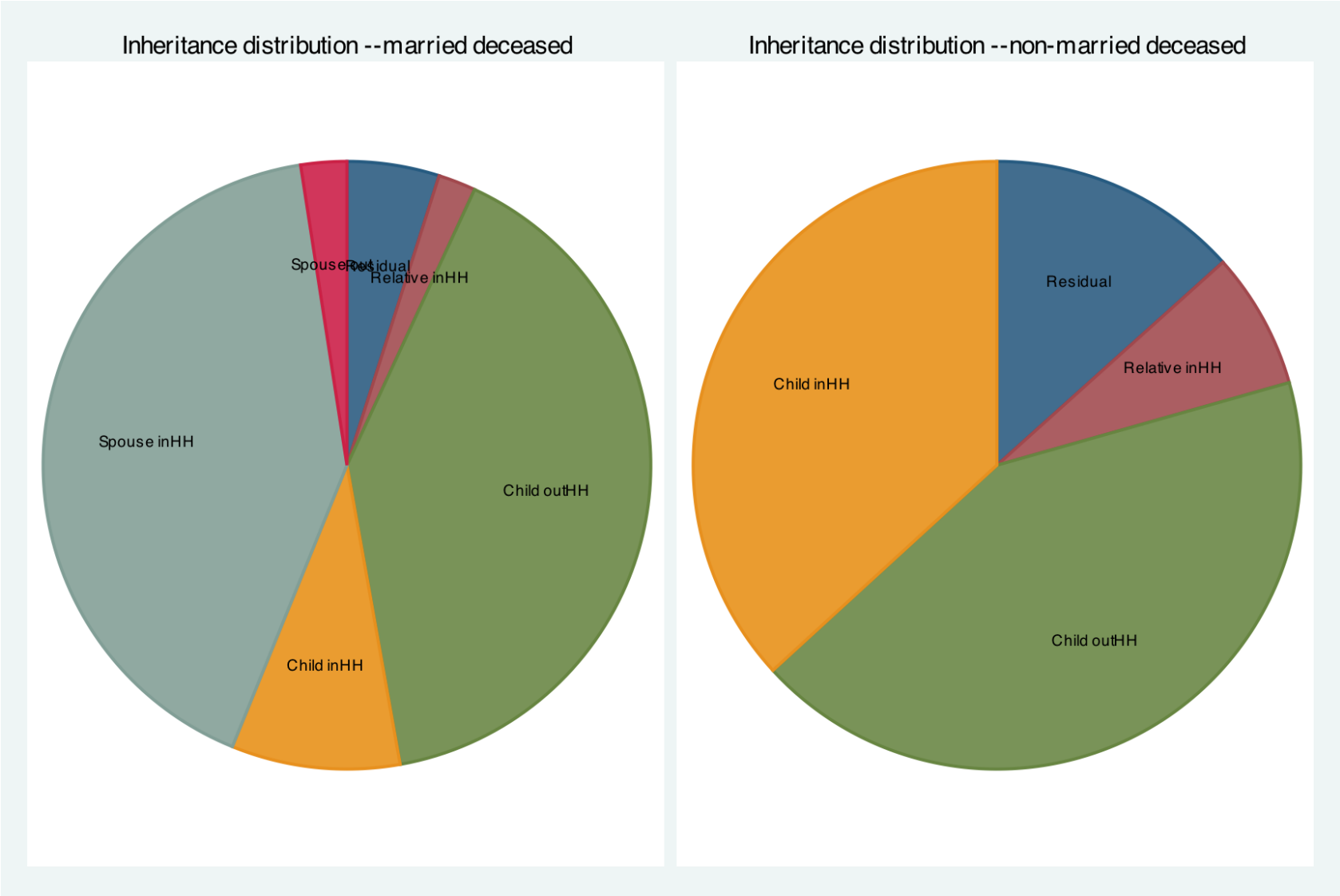
Age	N deaths	Mean* assets	Have assets	N have	Mean* assets
65-84	197	4.55	42%	83	10.80
85-94	158	3.30	29%	46	11.33
95+	166	2.77	24%	40	11.48
Total	521	3.60	32%	169	11.11
* In income units, ea $4,124					

Who inherited

Death's kin	Inherited
Spouse	22%
Children in HH	42%
Children no HH	43%
Relatives	18%
Other	2%
Total (N)	100% (190)


Inheritance distribution
Spouse out
Residual
Spouse inHH
Relative inHH
Child inHH
Child outHH

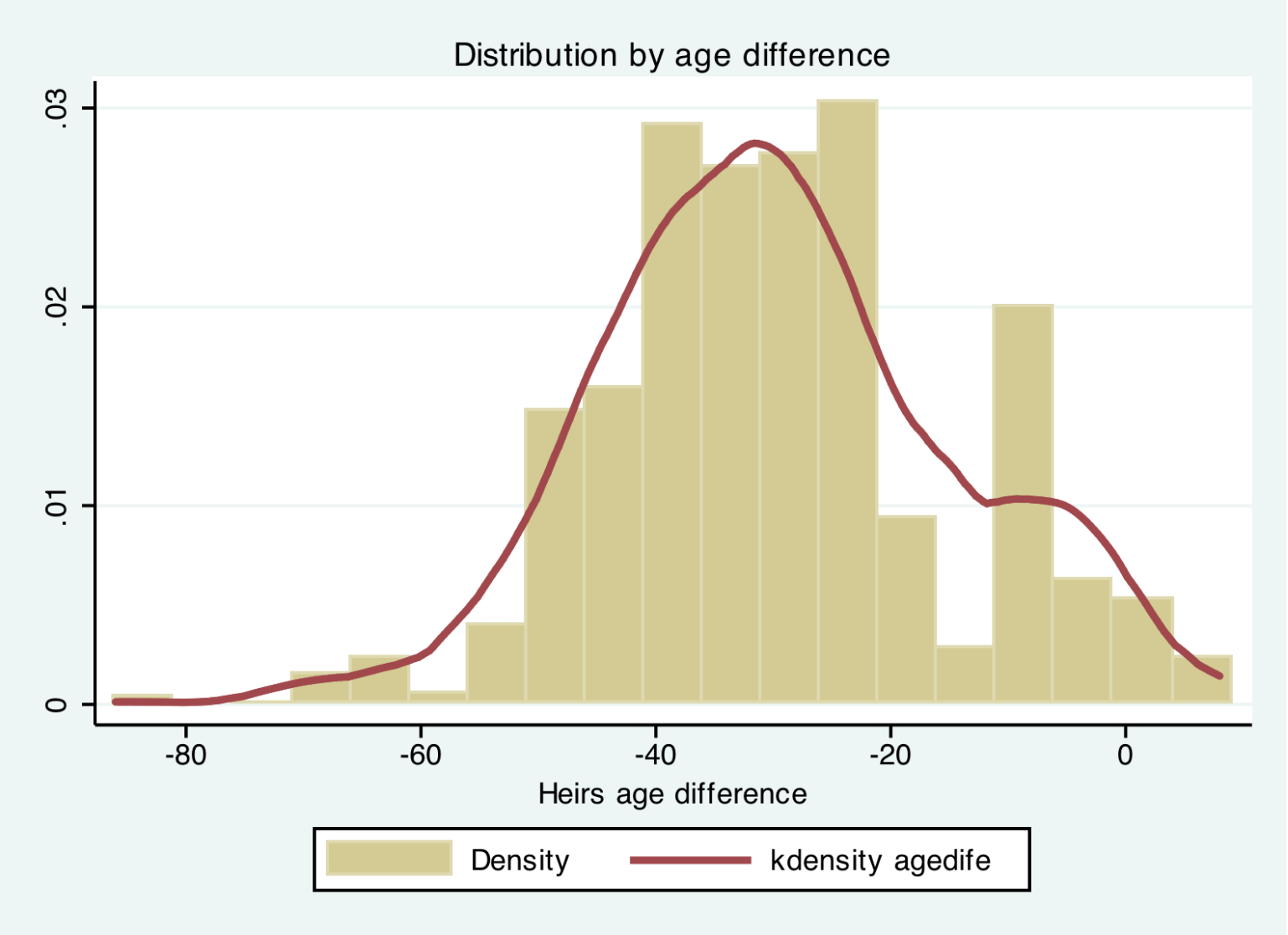
Conyugal status is important



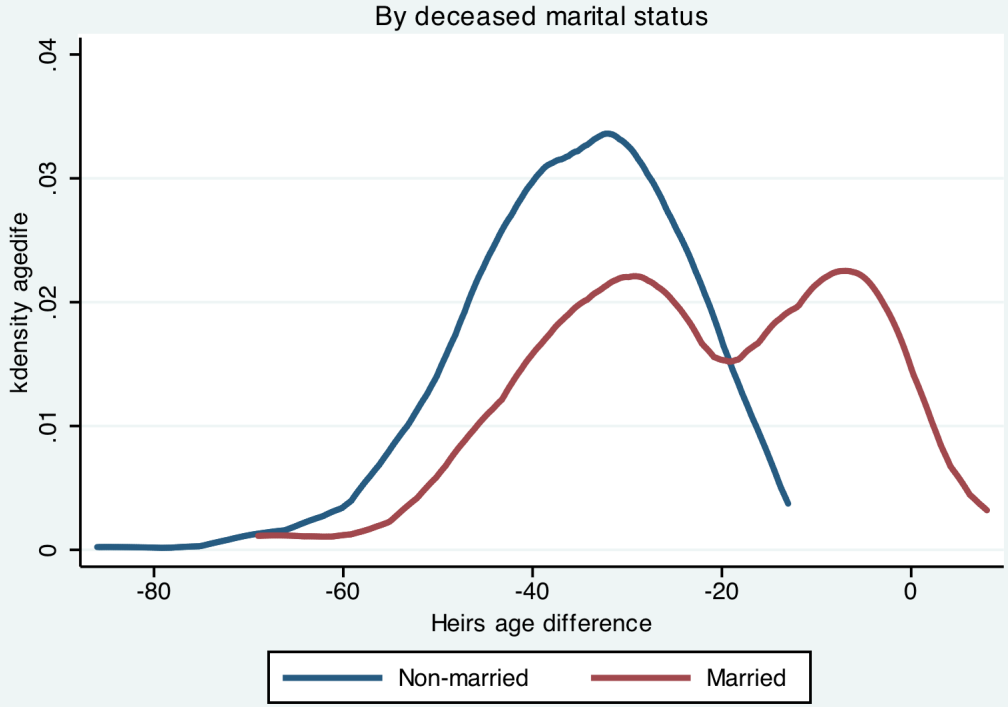
Inheritance received & heirs' ages

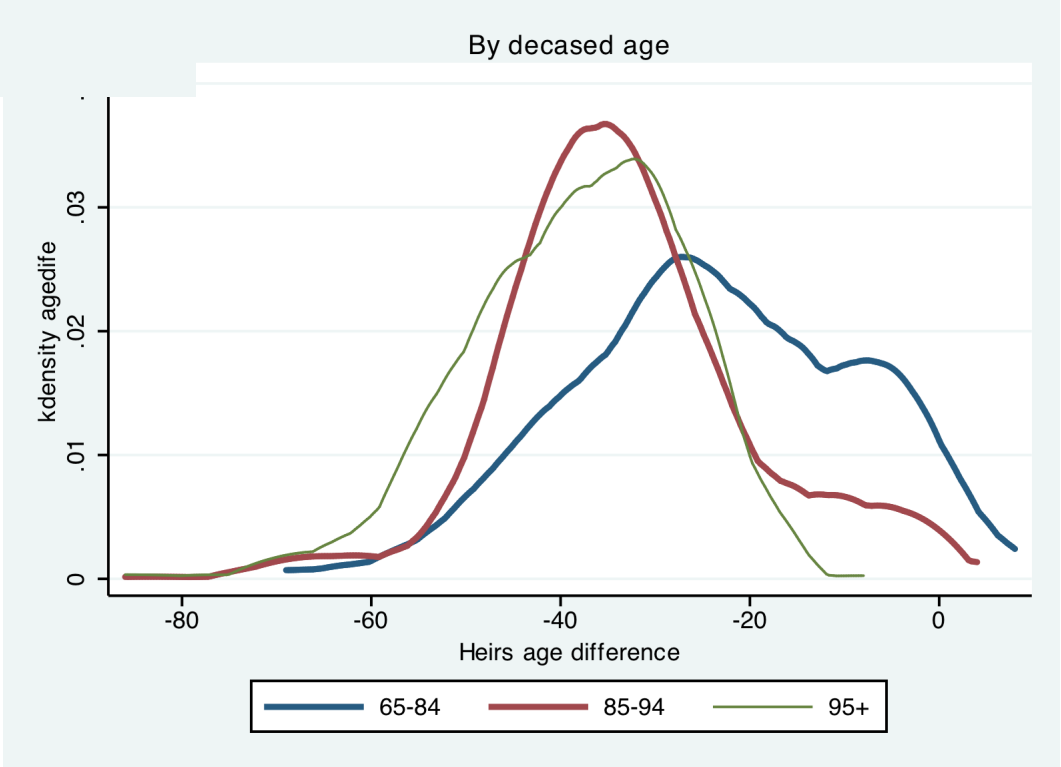
kinship	N heirs	Mean inheritance inc units	Mean age difference
Spouse no in HH	2	8.70	-9.00
Spouse	34	8.68	-8.90
Children in HH	82	5.29	-36.83
Children no HH	340	1.99	-32.27
Relatives	28	3.12	-50.64
Total	486	3.11	-29.81

Heirs age distribution in CRELES

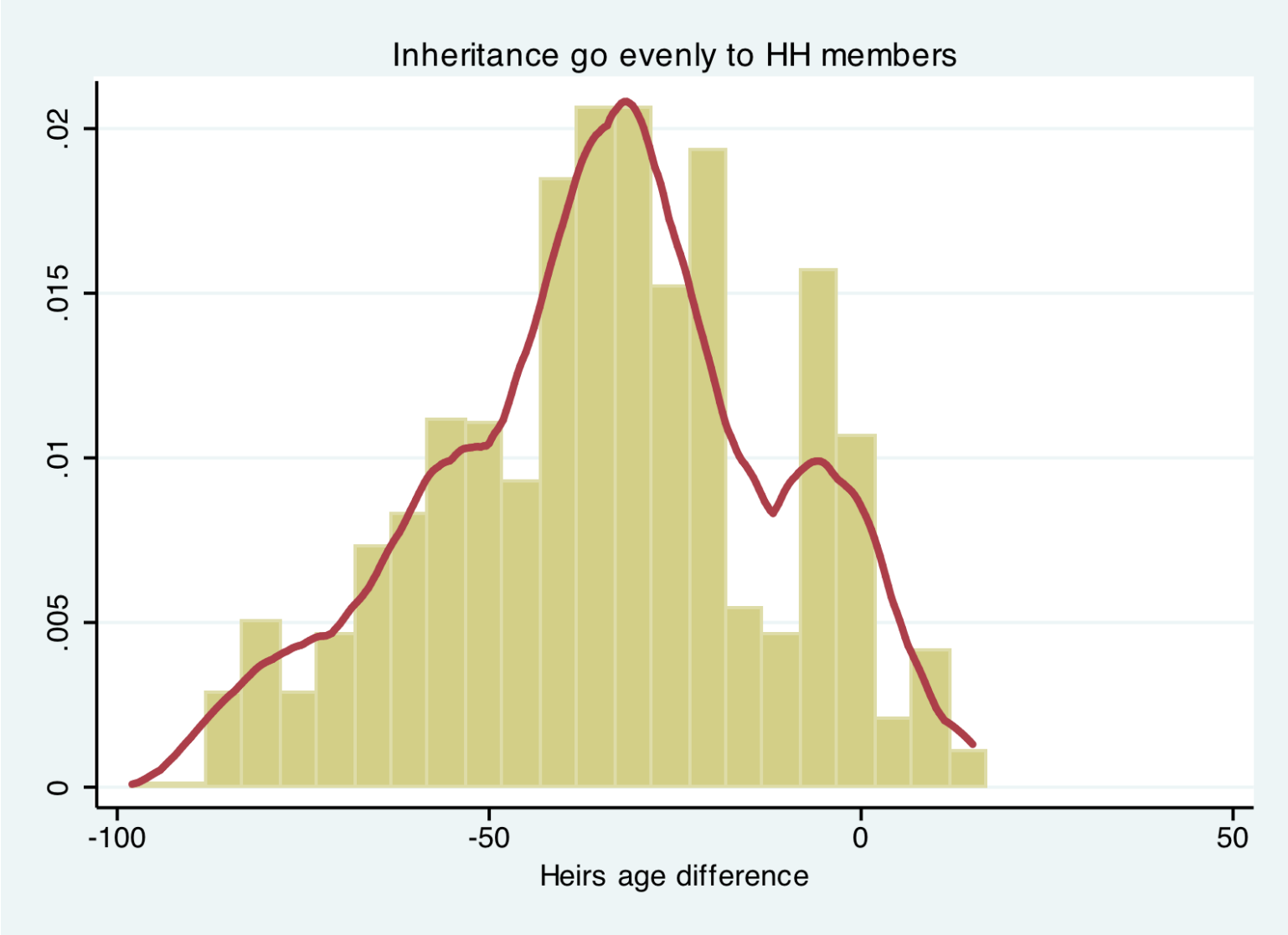


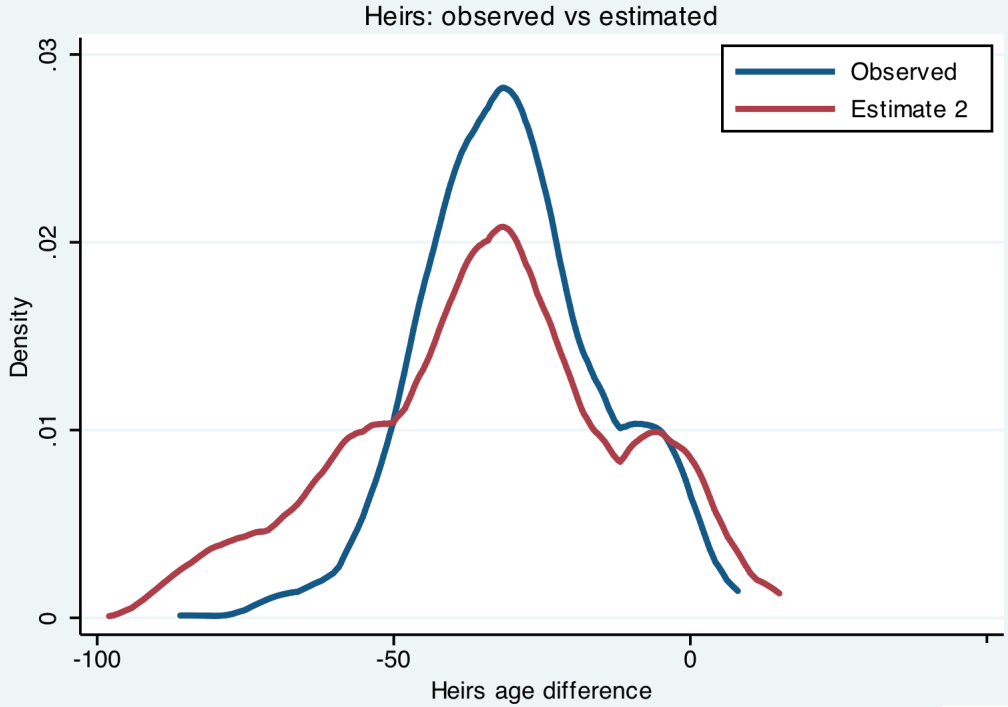
Heirs age distributions





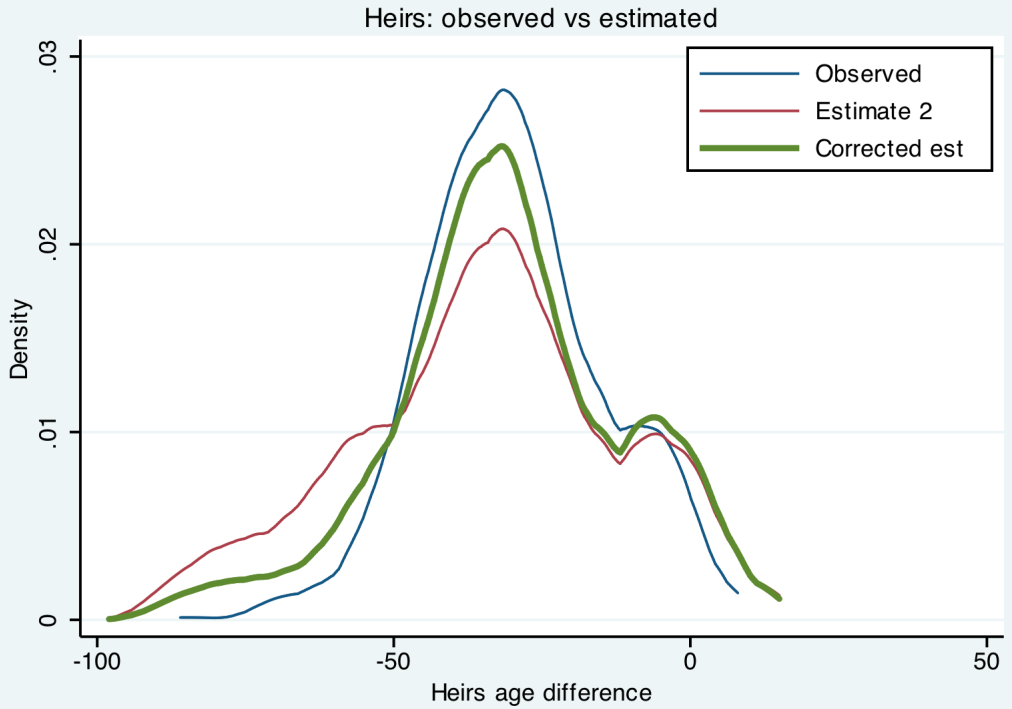
Heirs age distribution estimate 2





Observed vs. estimated heirs' age distribution

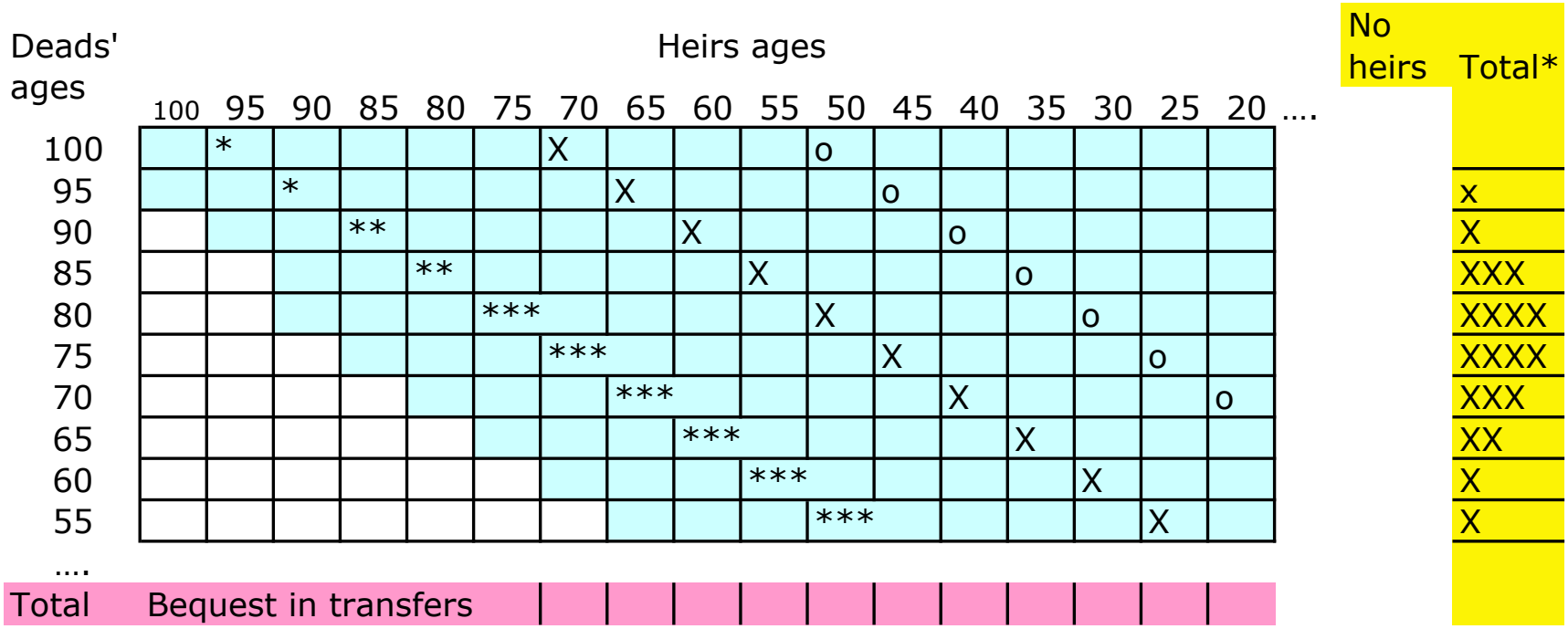
Inheritance correction: children and spouses weighted 1, other HH members weighted 0.2)



Discussion

- Bequest-out estimates seem a bit high with r=8% but with a reasonable age pattern, which is driven by mortality.
- Bequest-in estimates 2 seem reasonable when corrected for lower inheritance to no-direct family members
- Ageing surveys can provide data to validate/calibrate estimates

The bequest transfer matrix



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(In the HRS there are 9,000 deads)

Thank you