

Demographics of old-age care generational transfers in Latin America

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Old-age care (OAC) transfers

- Mostly in kind, not accounted by NTA (also called long-term care).
- Usually provided by women.
- Demand will increase with population ageing.
- Depicted in bleak terms especially for sandwich generations of women care providers.
- Need of new government transfers.

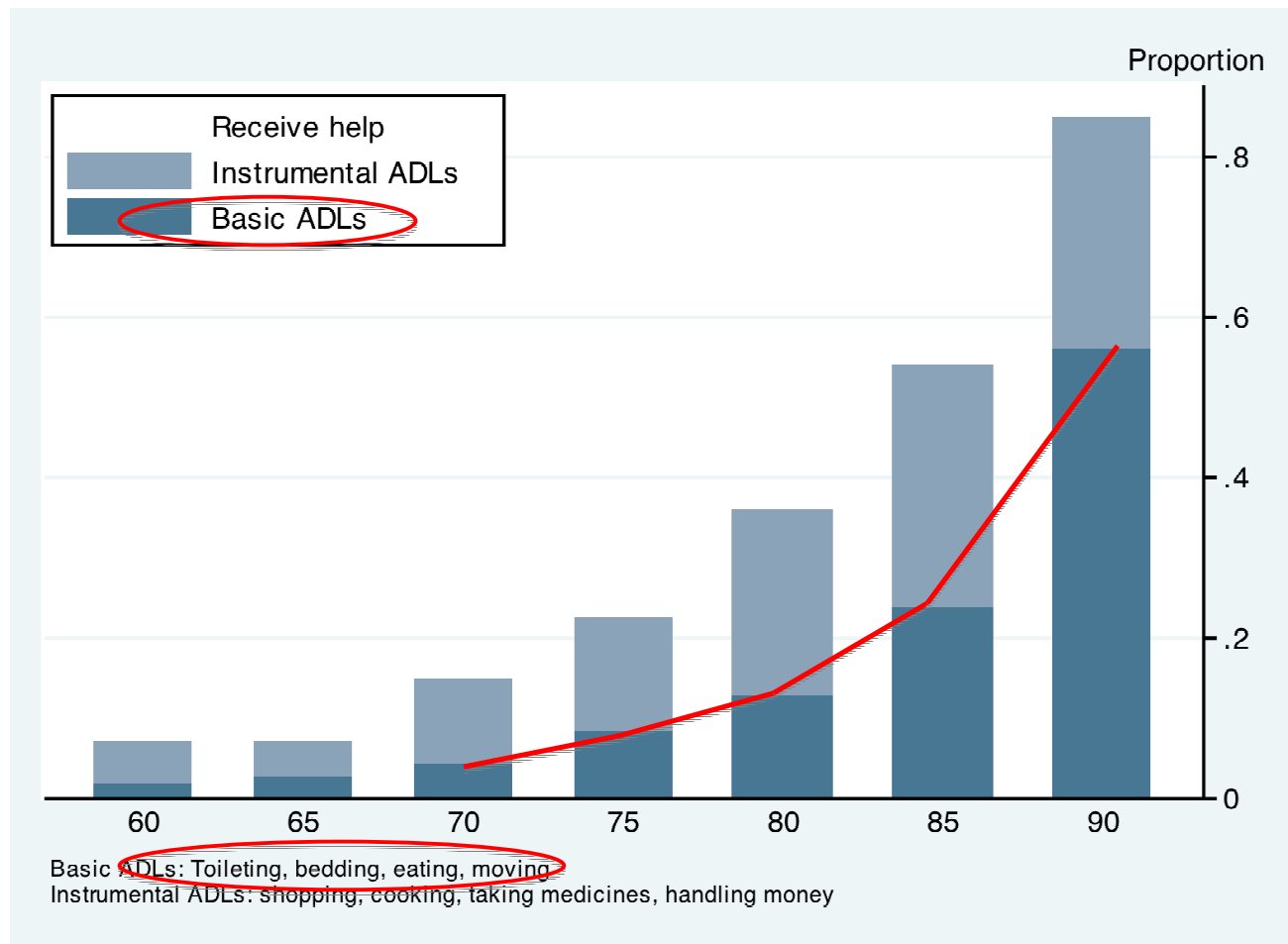
Data

- Help received in ADL from ageing surveys (other approach: time-use surveys).
- LA surveys in 2000-06, people aged 60+
 - 4 SABE (N=6,000) in the South Cone of LA (Buenos Aires, Montevideo, Sao Paulo and Santiago);
 - MHAS (N=5,000) in Mexico;
 - CRELES (N=3,000) in Costa Rica.
- Population data for the 5 NTA countries from CELADE, 1950 to 2050 (Brazil, Chile, Costa Rica, Mexico, and Uruguay).

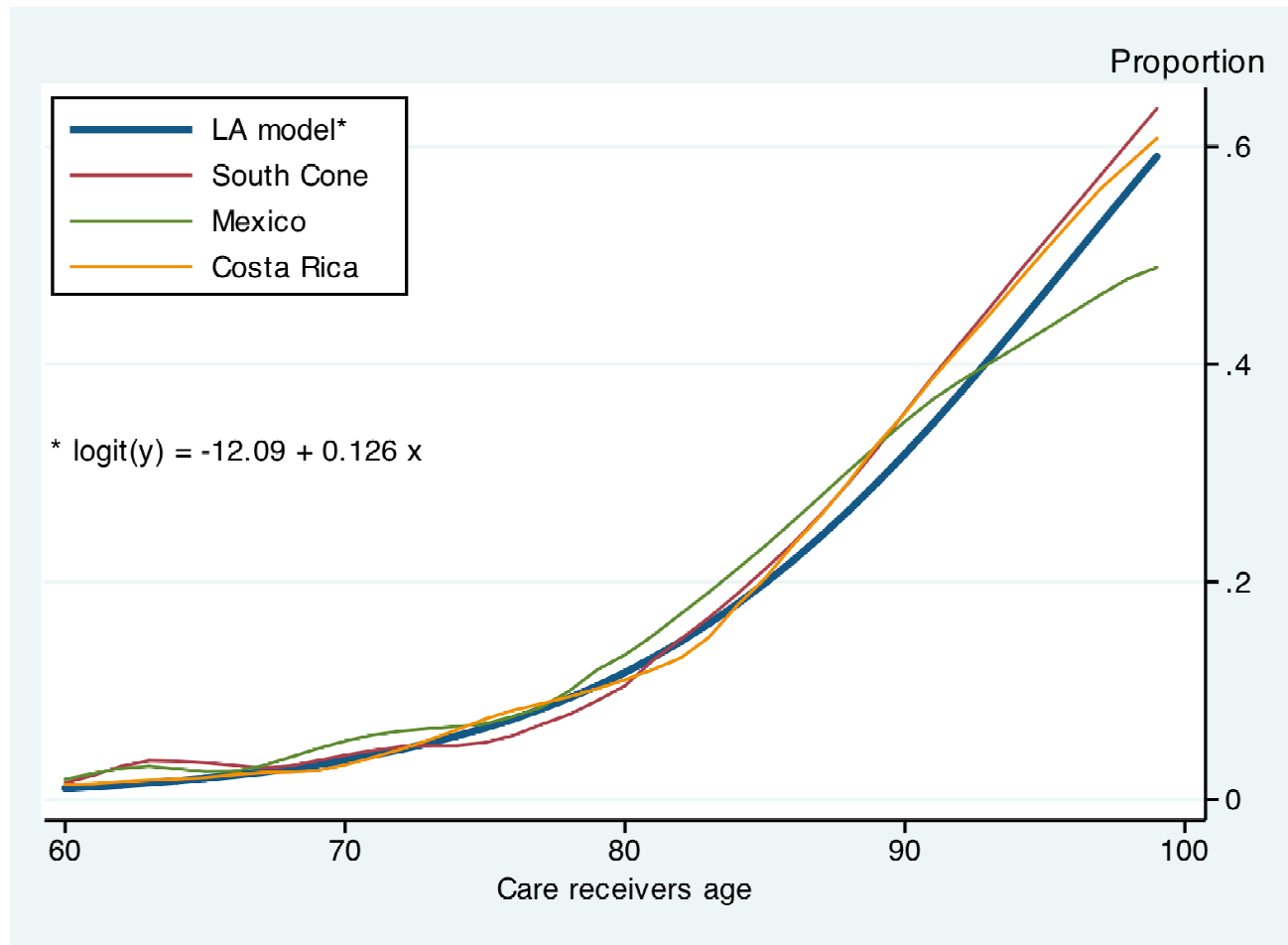
Analytic approach



Old-age care = help received in ADLs. Costa Rica



Similar care-receiving curves



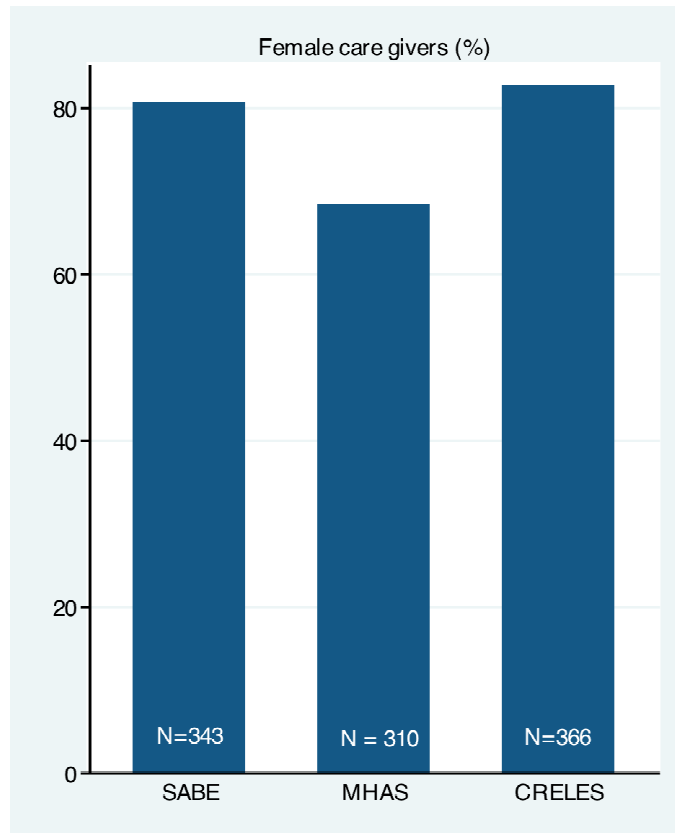
Logistic regression on the probability of being a care-receiver in LA

Variable	Odds Ratio	z-value	Sig.
Age (years)	1.12	28.58	**
Males	0.64	-5.75	**
Married	0.96	-0.49	
No children	0.95	-0.38	
1-2 children	1.00	Reference	
3-4 children	1.13	1.24	
5+children	1.11	1.11	
6+ yrs Education	0.67	-4.62	**
South Cone	1.00	Reference	
Mexico	1.11	1.20	
Costa Rica	1.11	1.12	

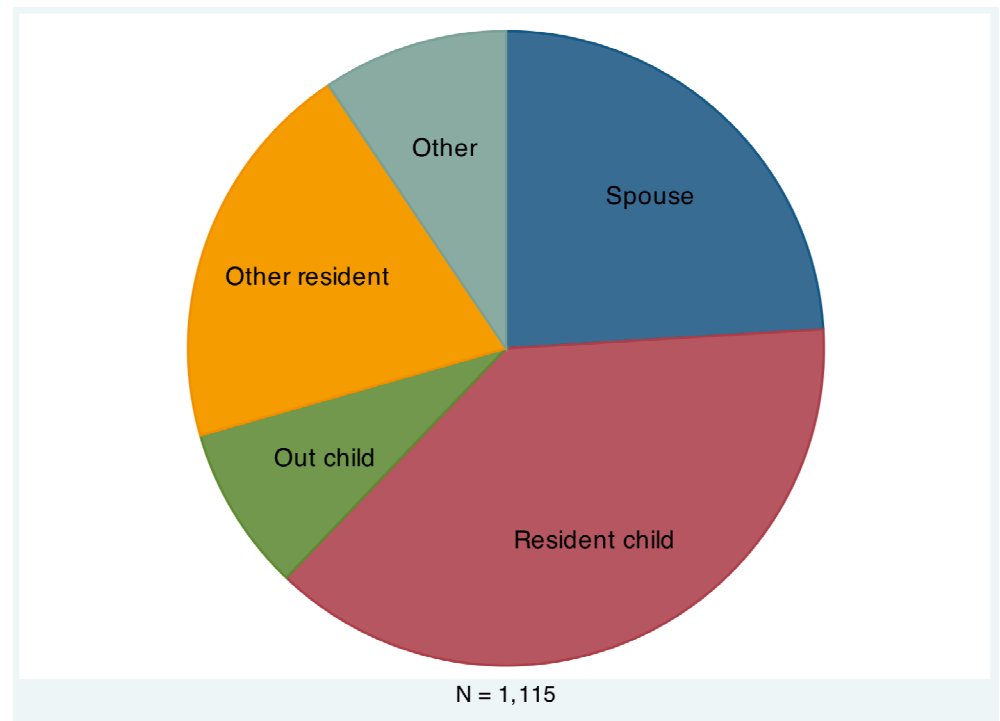
N = 13,699. ** significant at P<0.01

Who are the caregivers?

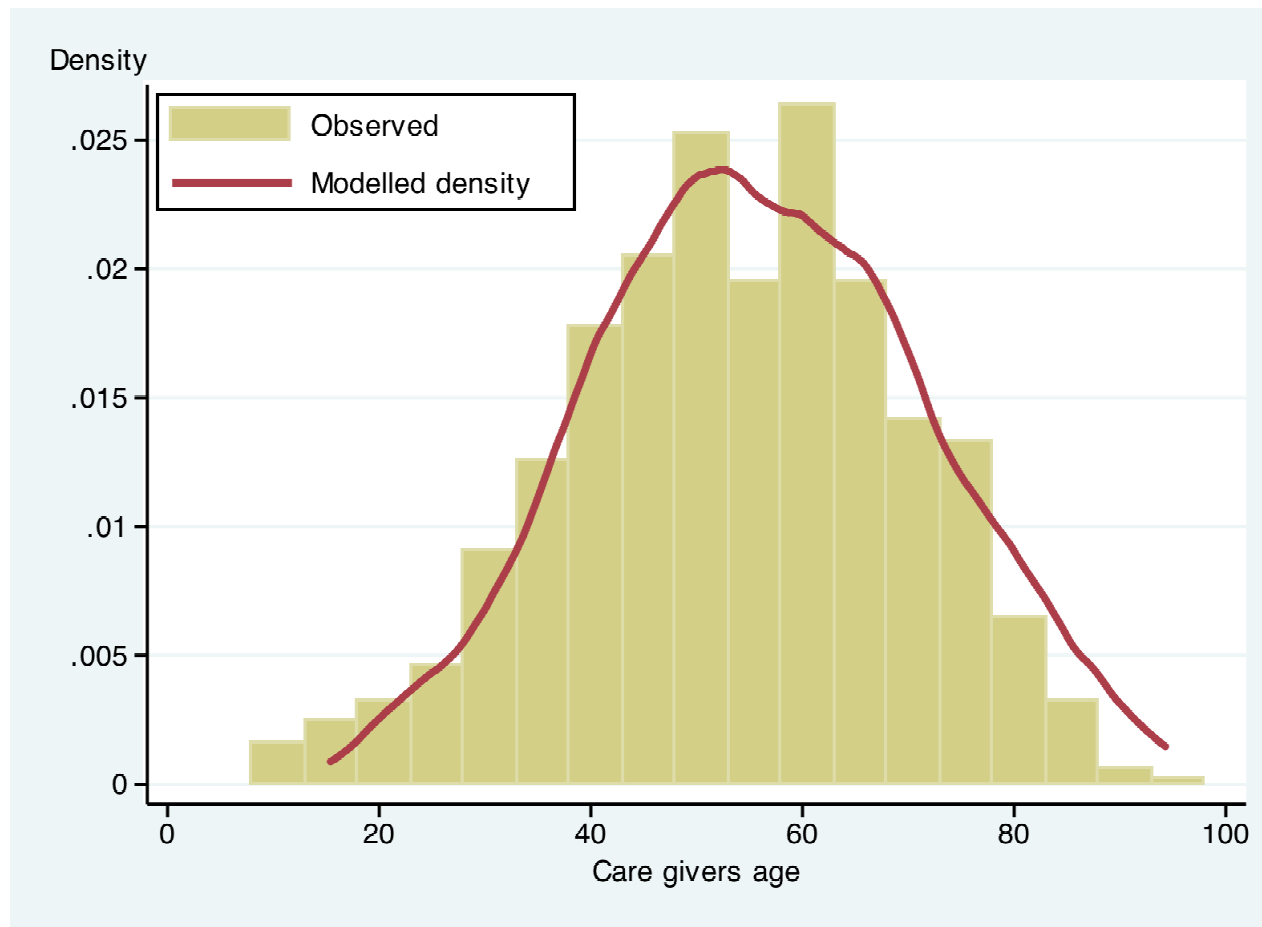
By sex



By Kinship

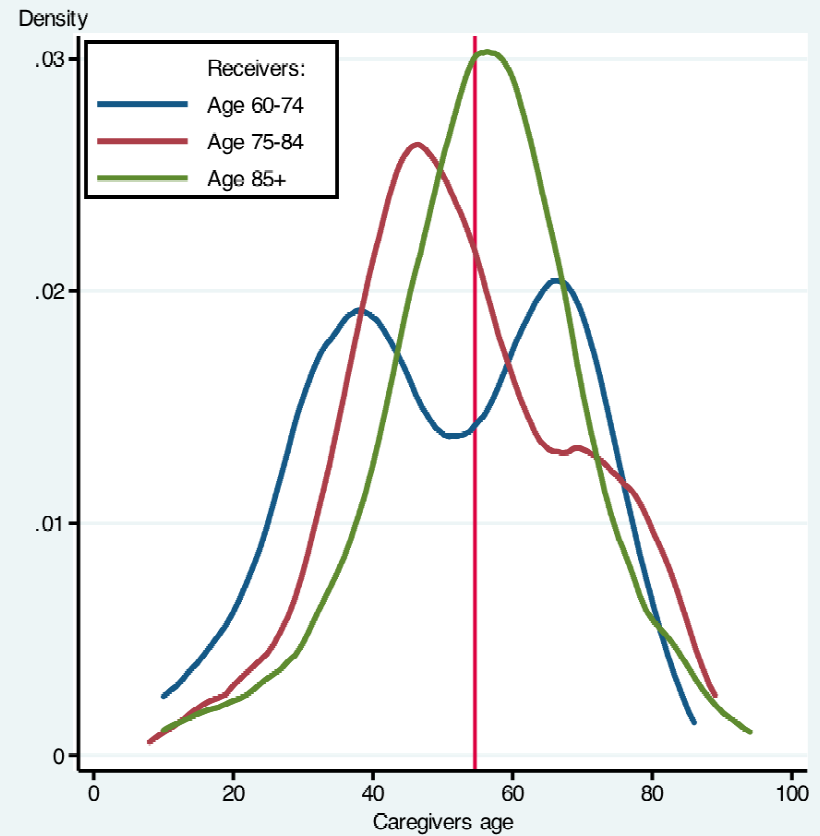
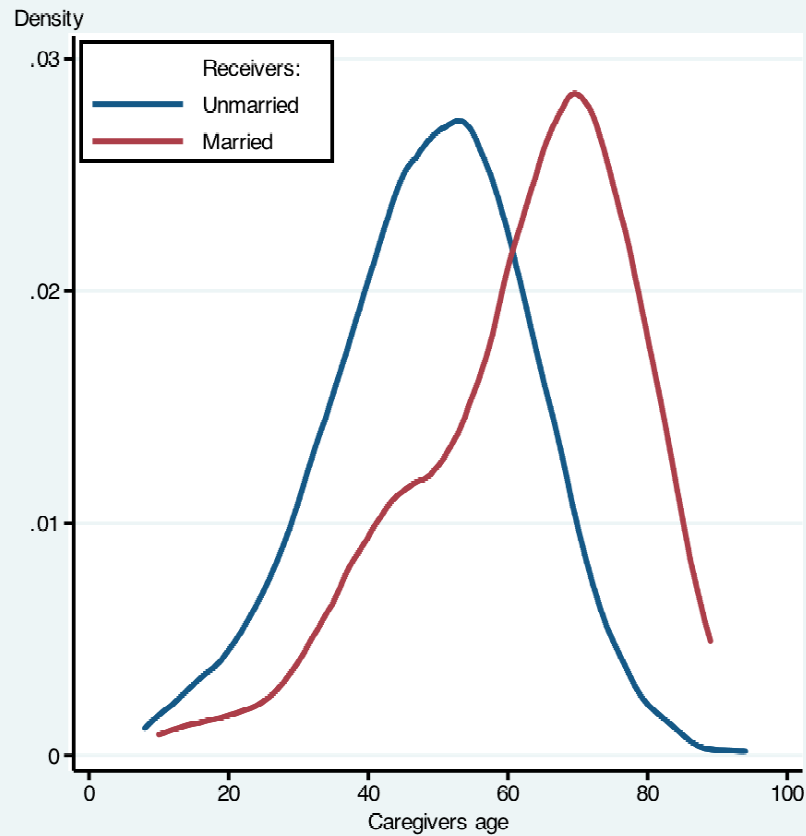


Distribution by care-givers age



Model: $E[Y] = -1.37 + 0.62 * \text{age} + 30.51 * \text{married} - 0.17 * \text{age} * \text{marr}$, normal distribution

Care-givers age variations by characteristics of the care-receivers

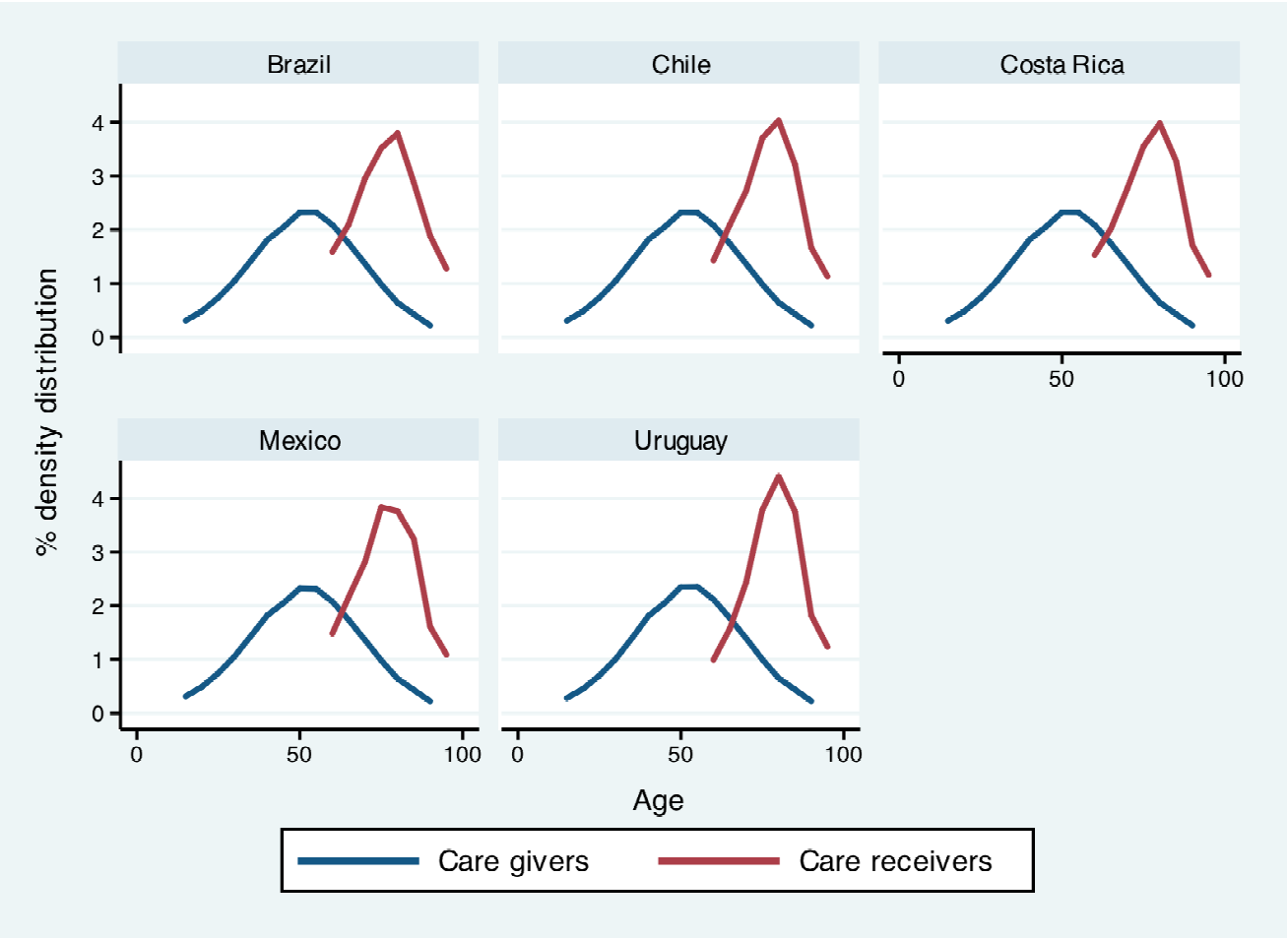


OLS regression on the age of Care-givers

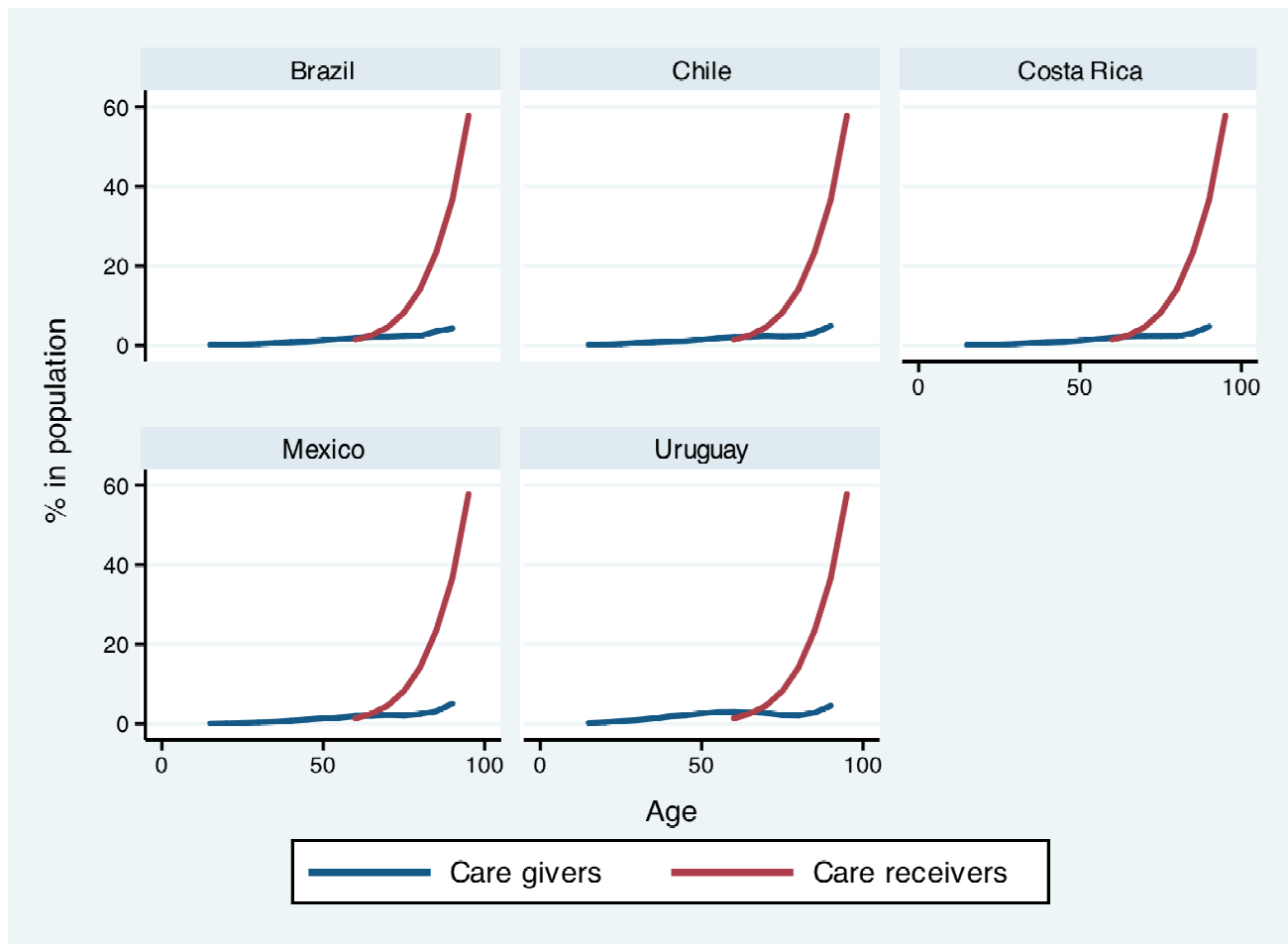
Receiver characteristics	Full model			Short model		
	Coef.	t-value	Sig.	Coef.	t-value	Sig.
Male	-0.30	-0.31				
Age years	0.71	13.38	**	0.62	10.59	**
Married	51.47	6.93	**	30.51	3.88	**
Age * married	-0.42	-4.50	**	-0.17	-1.65	+
No children	1.97	1.11				
1-2 children	0	Refer.				
3-4 children	1.86	1.44				
5+children	-1.32	-1.13				
6+ yrs						
Education	-0.04	-0.04				
South Cone	0	Refer.				
Mexico	-2.56	-2.33	*			
Costa Rica	-1.80	-1.59				
Constant	-9.29	-2.05	*	-1.37	-0.28	

N=994. ** Significant at $p < 0.01$, * at $p < 0.05$, + at $p < 0.10$

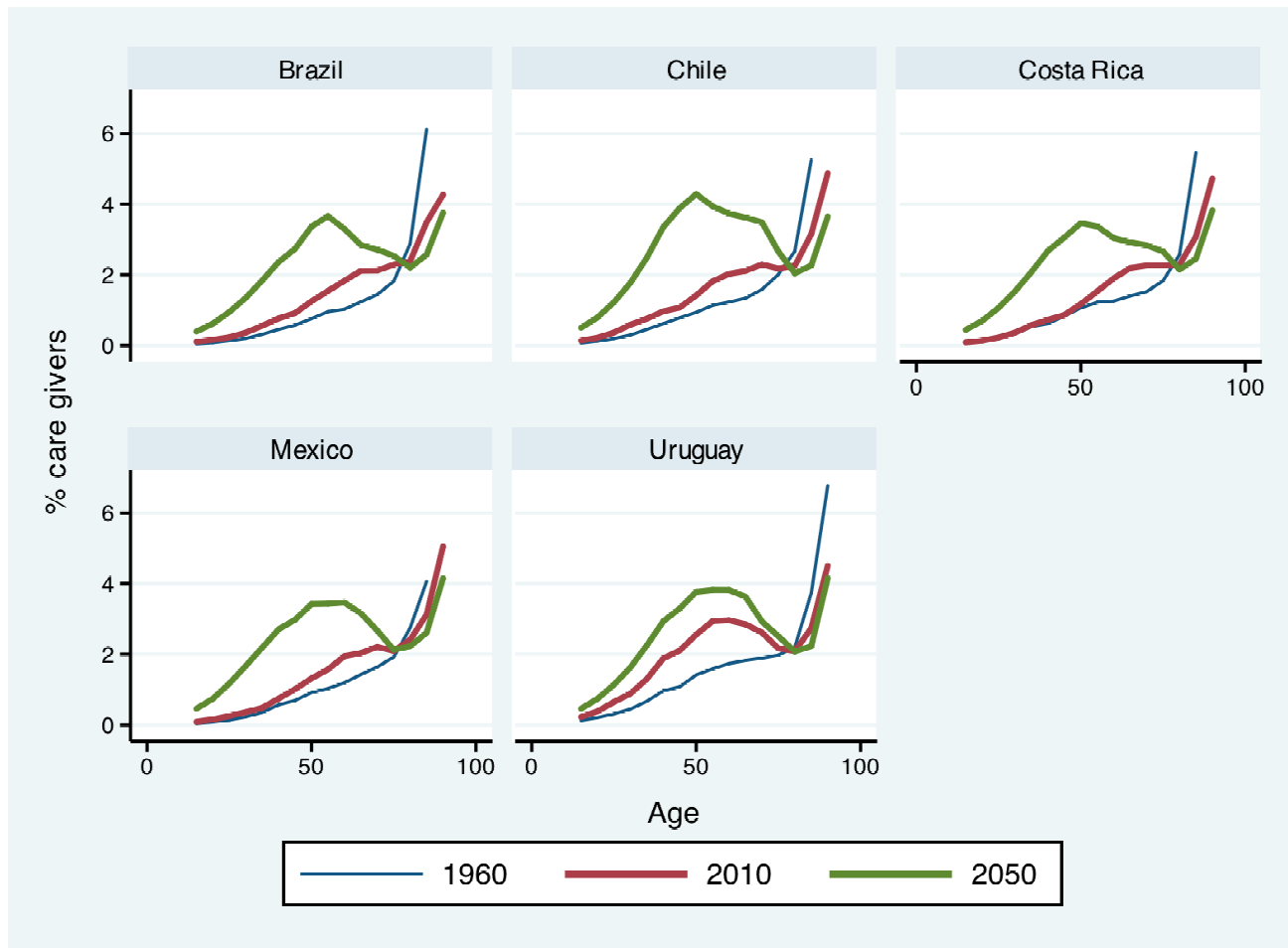
Care-givers and receivers by age in 2010 populations



Proportion of care-givers and receivers by age in 2010 populations



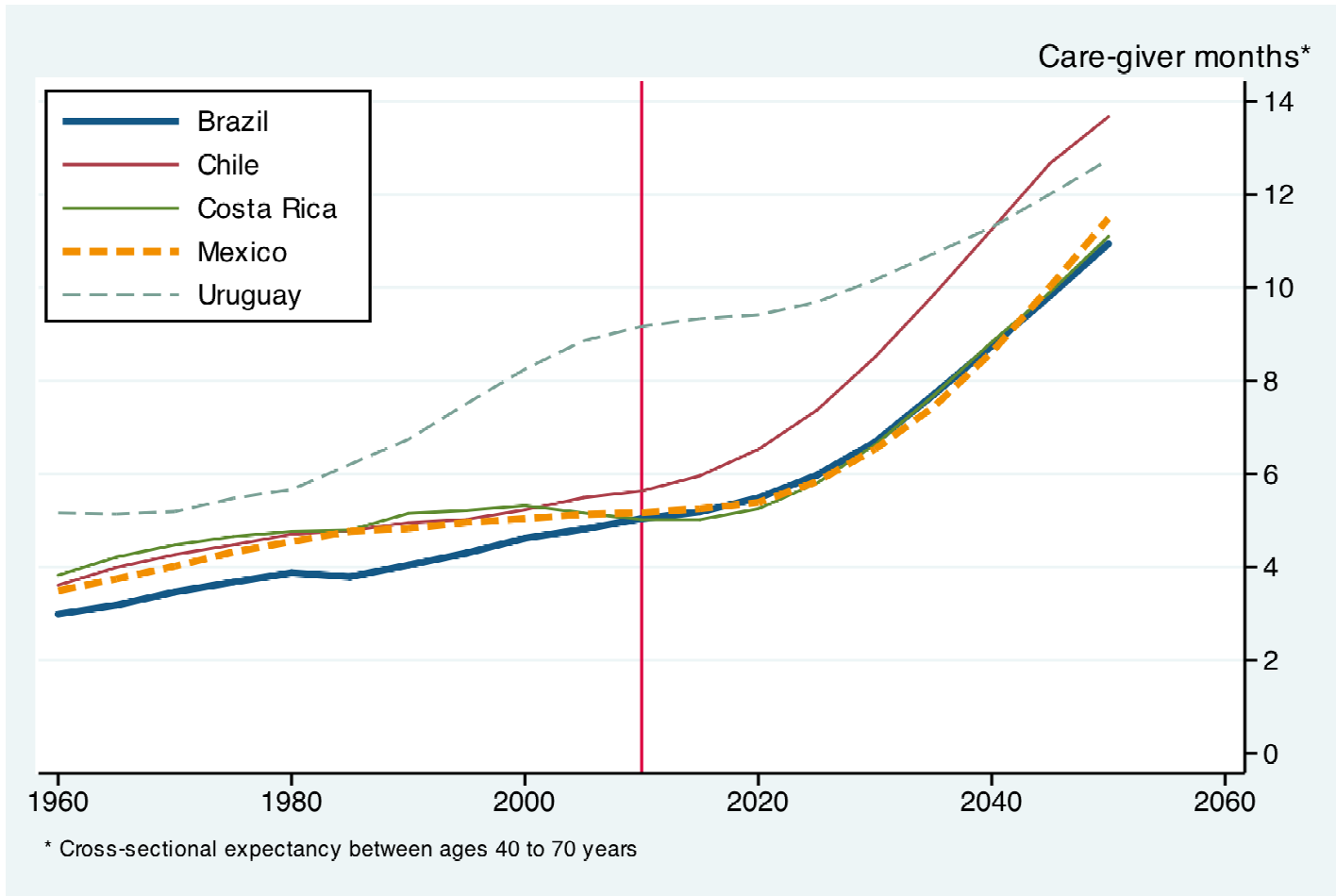
Proportion of care-givers in 1960, 2010, and 2050 populations



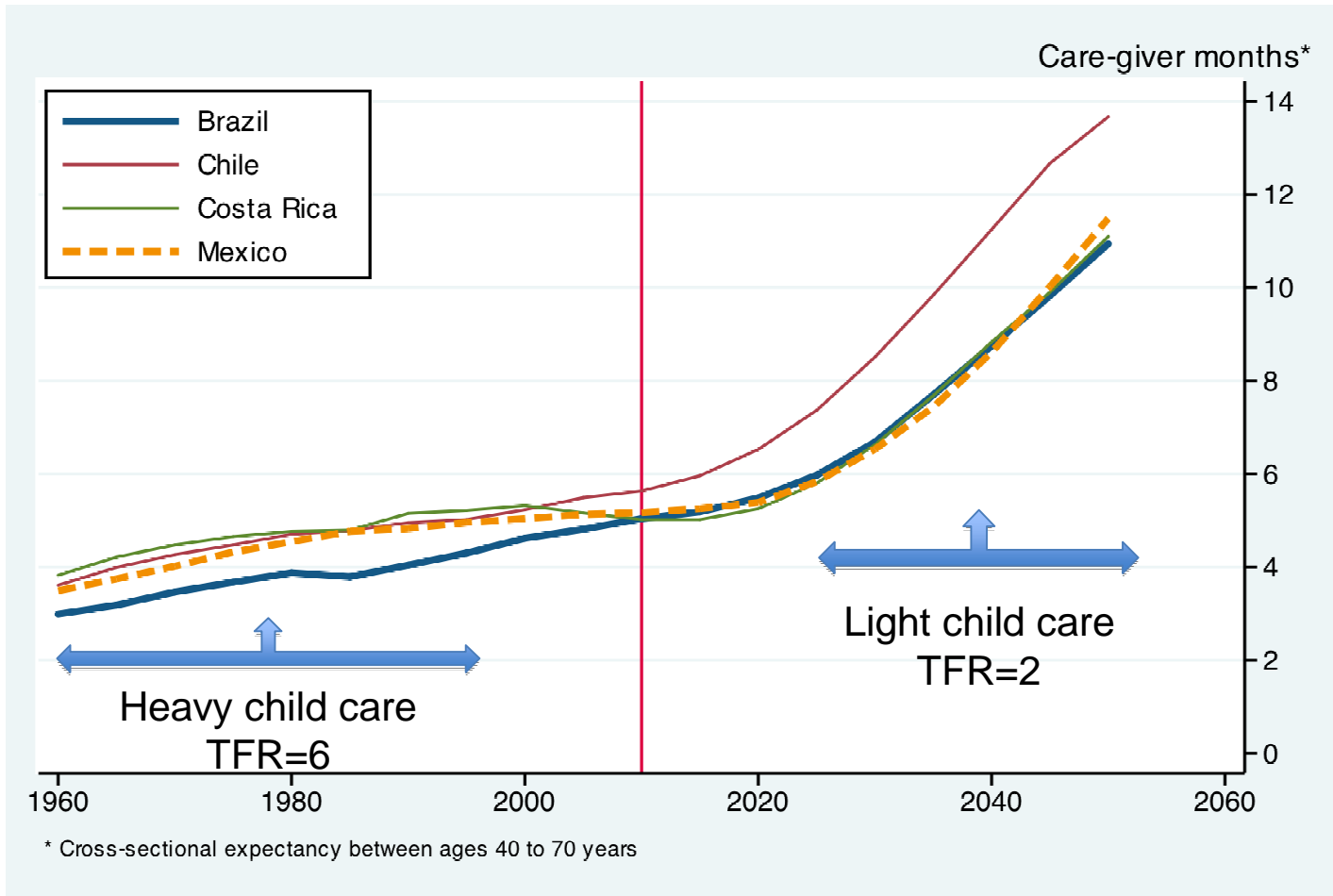
Care Giving Life Expectancy
or
Total Care Giving Rate

$$TCGR = \sum_{a=40}^{69} PCG_a$$

Care giving life expectancy. 1960-2050



Sandwich generations?



Issues to think about OAC in LA

- The need of OAC takes off after age 80
- OAC is provided by the family in LA (so far)
- It is a women' issue (so far)
- It will increase, but at low levels <4%. How much of a burden for families?
- Government-provided OAC? (remember the tragedy of the commons)
- Where is the sandwich generation?

THANK YOU

Appendix: the LA care-receiving/giving matrix

Givers age	Receivers' age							
	60	65	70	75	80	85	90	95
Proportion receivers ->	0.0139	0.0253	0.0456	0.0819	0.1412	0.2346	0.3662	0.5778
<i>Total</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>	<i>1.0000</i>
15	0.0288	0.0320	0.0228	0.0180	0.0111	0.0070	0.0021	0.0002
20	0.0391	0.0419	0.0376	0.0290	0.0180	0.0148	0.0055	0.0005
25	0.0579	0.0541	0.0476	0.0462	0.0337	0.0244	0.0134	0.0038
30	0.0751	0.0737	0.0665	0.0594	0.0499	0.0391	0.0270	0.0133
35	0.0909	0.0861	0.0848	0.0794	0.0712	0.0637	0.0457	0.0230
40	0.0965	0.0934	0.0944	0.0949	0.0963	0.0906	0.0824	0.0512
45	0.1076	0.0997	0.1047	0.1023	0.1088	0.1021	0.1015	0.0792
50	0.1108	0.1039	0.1056	0.1069	0.1205	0.1276	0.1320	0.1326
55	0.1061	0.0959	0.1017	0.1054	0.1188	0.1249	0.1439	0.1599
60	0.0914	0.0856	0.0898	0.0939	0.1053	0.1113	0.1354	0.1535
65	0.0711	0.0727	0.0788	0.0801	0.0848	0.0928	0.1067	0.1406
70	0.0527	0.0530	0.0598	0.0655	0.0668	0.0759	0.0864	0.1038
75	0.0329	0.0428	0.0443	0.0499	0.0497	0.0522	0.0554	0.0714
80	0.0234	0.0320	0.0289	0.0321	0.0317	0.0369	0.0342	0.0370
85	0.0095	0.0221	0.0214	0.0243	0.0225	0.0243	0.0190	0.0201
90	0.0062	0.0110	0.0114	0.0129	0.0110	0.0124	0.0093	0.0099