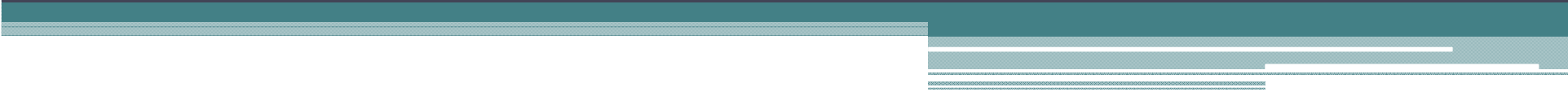


An Analysis of Family Transfers: Theory and Evidence

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A decorative graphic at the bottom of the slide consisting of several horizontal lines of varying lengths and colors, including teal and light blue, arranged in a stepped, overlapping fashion.

Family Transfers vs. Public Transfers

- World focused on public transfer programs
 - Social Security programs around the world
 - Health and Long-term care Insurance
- Family transfers are as large or larger than government transfers
 - In U.S. \$65 billion / yr to children
 - Bequests of \$200 billion / yr
- Interaction between public and private
 - Who is really helped?
 - How well-off are beneficiaries

Behavioral Models for Transfers

- Altruism / Caring
 - Transfers are made because the donor cares about the well-being of the recipient, and expects nothing in return
- Formally $U_p = U_p(C_p, V(C_k))$
 - Parent determines transfer based on child's income
 - Negative relationship between child's income and both the probability / amount of transfer
 - Positive relationship between parent's income and both probability / amount of transfer
 - Note that 2-sided altruism is possible

Behavioral Models for Transfers

- Exchange / Reciprocity
 - Transfers are made as part of a reciprocal relationship / in exchange for something else
 - Some sort of self-interest embedded in behavior
- Formally: $U_p = U_p(C_p, S)$
 - Relationship between child's income and *probability* of transfer is negative
 - Relationship between child's income and *amount* can be either positive or negative
 - Depends on elasticities of supply and demand for services

Alternative Models

- Warm Glow: $U_p = U_p(C_p, T)$
 - Parent gets utility from giving
 - No relationship between child's income and the probability / magnitude of transfer
 - Positive relationship between parent's income and transfers
- Paternalistic: $U_p = U_p(C_p, C_k)$
 - Parent cares about the particular consumption bundle of the child
 - Positive relationship between parent's income and transfers

Alternative Models

- **Evolutionary Model**
 - Parent cares about survival of her genes
 - Altruistic not to offspring but to own genetic material
 - Optimal family size (quantify / quality trade-off)
 - Demand for grandchildren
- **Demonstration Effect**
 - Exchange: Reimbursed by a third party
 - Instills social norms about caregiving through “role modeling”
 - Teaching children how they “should” behave

Empirical Evidence - Income effect

- Research focused on altruism vs. exchange
 - Examines signs and magnitudes of the income coefficients
- First studies found transfers made to better-off children but poor measures of parental income
- Recent studies find compensatory transfers (more going to less well-off children)
- Results consistent with both altruism and exchange

Derivative Restriction

- *Altruism* model requires that an increase in recipient's income of one dollar and a decrease in the donor's income of one dollar, result in a decrease of one dollar in transfers for positive transfers

$$\partial T / \partial Y_k - \partial T / \partial w_p = -1$$

Termed “derivative restriction”

- Cox (1987) first examined relationship
- More recently, Altonji et al. (1997)
 - Both show that quantity is far from negative one

Intuitively

- (Mother's income, son's income) = (\$200, \$50)
Mother transfers \$50 → resources (\$150, \$100)
- Now suppose mother's income were \$1 lower and son's income were \$1 higher i.e. (\$199, \$51). If mother still transferred \$50 allocation would be (\$149, \$101)
- Mother could have achieved this allocation originally with a \$51 transfer. Because it wasn't chosen, she "prefers" (\$150, \$100) to (\$149, \$101)

Static versus Dynamic

- Model / predictions are based on single period, corresponding to changes in *permanent incomes* of the parent and child. We observe changes in *current incomes*
- ❖ If observations on current income of the child alter expectations of future income, derivative restriction need not hold.
 - Intuitively, low $Y_{k1} \rightarrow$ low $E [Y_{k2}]$
 - \rightarrow Parent wants to increase T_1 and T_2
 - $\rightarrow \partial T_1 / \partial Y_{k1}$ is dampened relative to its value with no updating



Outline

- Examine variation in transfers over time
 - How are transfers over time related?
- What are we missing in cross sectional analyses?
- How do transfers respond to “life events”?
- How are transfers distributed within the family?
 - Do transfers flow to a favorite child?
 - Are they evenly divided?
 - Do they help a needy child?



Health and Retirement Study

- Nationally representative sample of individuals born 1931-1941 (initial HRS cohort)
- First interviewed in 1992, biennially thereafter
- Total sample size: 12,652 individuals in 7,700 households in wave 1
- Updated with additional cohorts over time
 - Approximately representative of United States population ages 50+
 - Total of 31,000+ respondents over 11 waves



Health and Retirement Study

- Extremely detailed information for respondents
- Also rich information on all their children
 - Age, sex, in school, highest grade, working, marital status, own children, live w/in 10 miles, own home, income (in categories)
- Unusually good data on transfers to each child in the family

Analytic Sample

- Limit sample to respondents / children observed in the first wave (1992)
- Further require that families report in all 9 waves, 1992-2008
- Limit to children 18+ in '92 and non-coresident
 - Abstracts from legally required support payments
 - Value of room and board for coresident children
- → 3,383 families and 10,064 children

Transfer questions in the HRS

“Have you [and your husband/partner] given (your child/any of your children) financial assistance totaling \$500 or more in the past 12 months?”

“Which of them was given such assistance”

“About how much did that assistance amount to altogether in the past 12 months?”

Transfer questions in other surveys

NLS: “Did respondent receive **financial aid** *from* relatives in the past year?”

4.9% reported yes

PSID Annual Core: “**help** *from* friends or relatives in the past year”

4-7% reported yes

PSID supplement: “During 1987, did (you or your family living here) *give* any money towards the support of anyone who was not living with you at the time?”

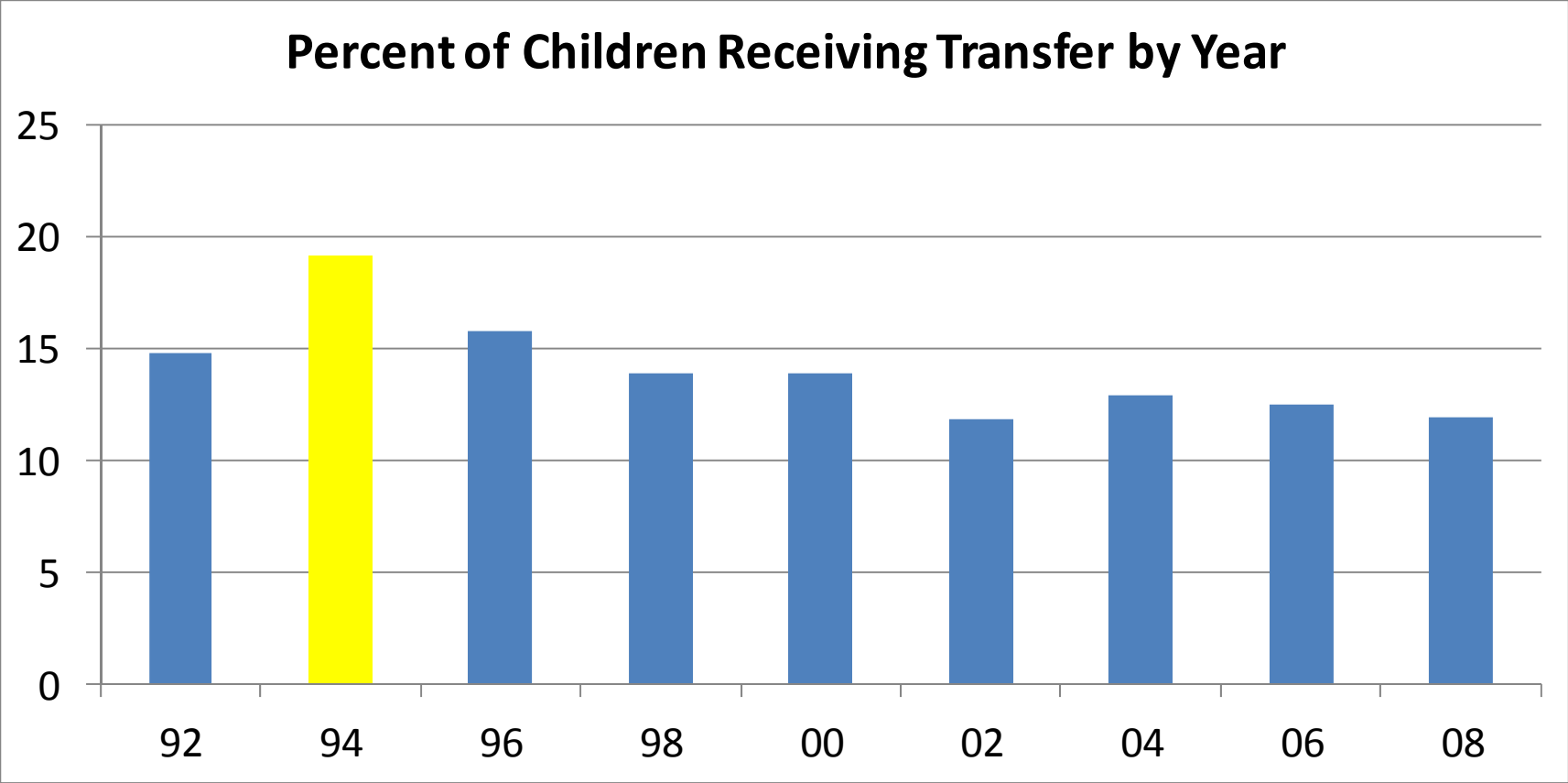
20% reported yes

Mean transfers by year

Year	Prob	Mean	Mean > 0	Median>0
1992	14.8	588	3,971	1,699
<i>1994*</i>	<i>19.1</i>	<i>514</i>	<i>2,689</i>	<i>948</i>
1996	15.8	1,040	6,565	2,597
1998	13.9	782	5,631	2,531
2000	13.9	839	6,764	2,430
2002	11.8	776	6,557	2,346
2004	12.9	883	6,849	2,241
2006	12.5	946	7,592	2,969
2008	11.9	900	7,534	2,000

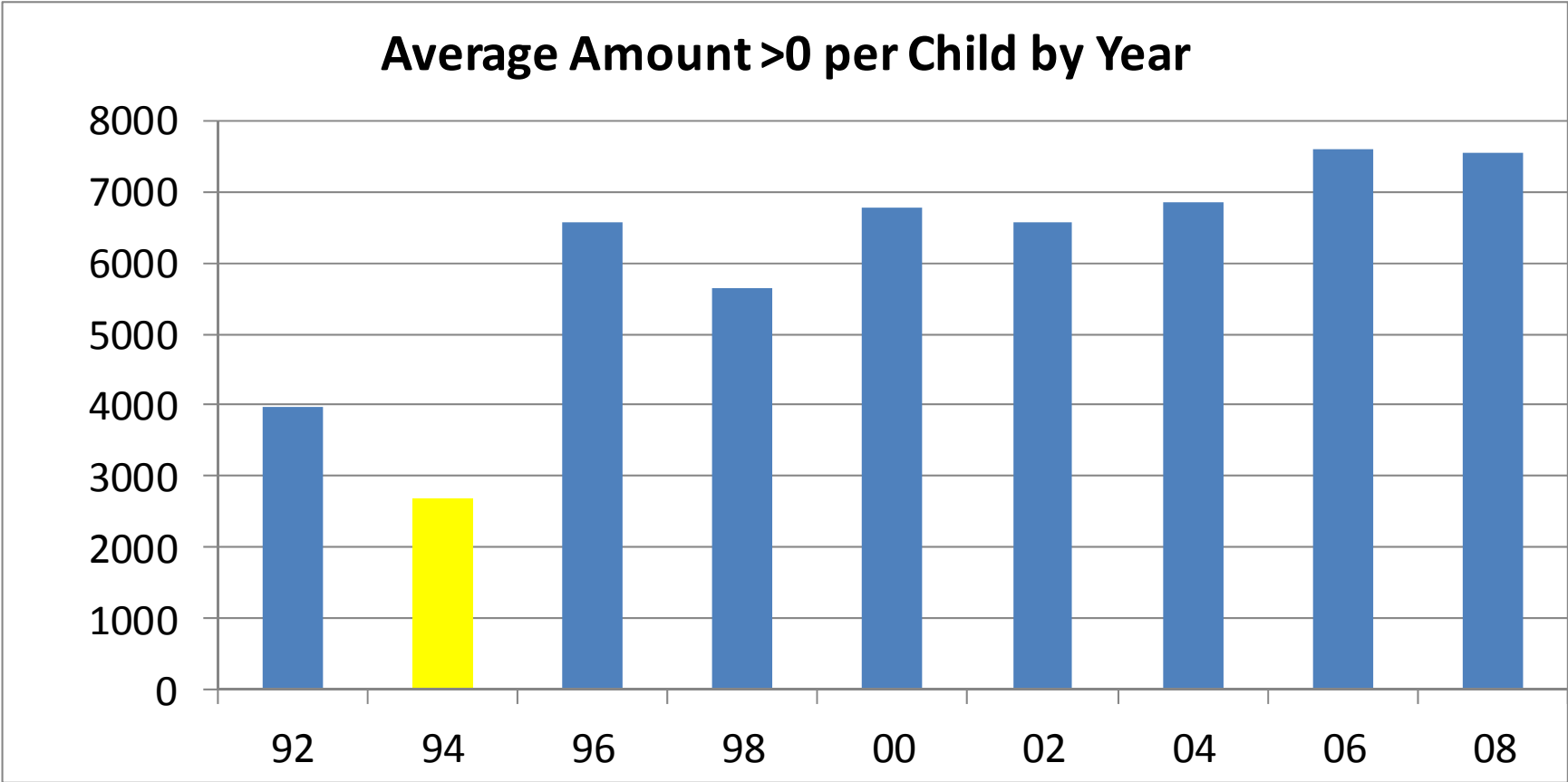


Percent of Children Receiving Transfer by Year



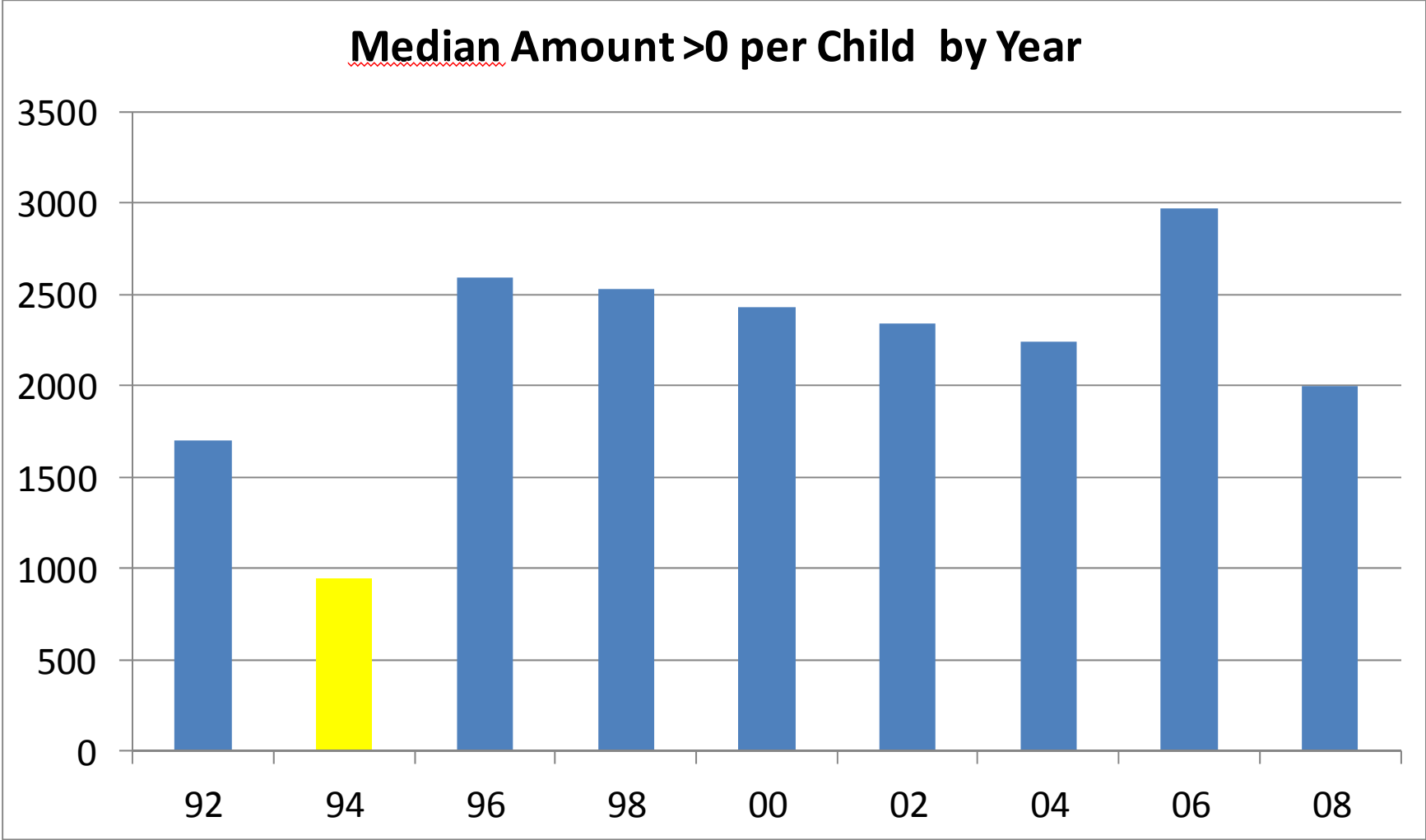


Average Amount >0 per Child by Year





Median Amount >0 per Child by Year



Number[†] (and Percent) Receiving Transfers in Each Year Child Level

Year 1 Status	Year 2 Status		
	Received Transfer	No Transfer	Total
Transfer	4,950 (6.2)	5,968 (7.5)	10,918 (13.7)
No Transfer	5,667 (7.1)	62,950 (79.2)	68,617 (86.3)
Total	10,617 (13.4)	68,918 (86.7)	69,952 (100.0)

Variation for those with transfers

- 46 percent of children get a transfer in at least one survey year out of 9
- Conditional on getting at least one:
 - 18 percent get in only one year
 - Only 1 percent in all waves
 - 62 percent receive in more than one wave
- Even for the 6 percent of children receiving transfers in back to back waves there is a substantial amount of variation
 - The correlation between the amounts is 0.14

Relationship between Transfers and Life course Events

Event	Experienced Event		Did not Experience Event	
	% received transfer	Mean>0	% received transfer	Mean>0
Attained 16 yrs school	20.2	4,714	13.3	4,217
Married	16.8	4,247	12.8	4,231
Bought a home	16.5	4,692	13.7	3,995
Had a child	14.5	5,758	13.4	4,236
Had a first child	14.4	4,823	12.9	4,061

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Lost job	17.5	5,257	13.9	4,151
Marriage ended	21.0	5,136	13.1	4,180
Lost home	15.2	4,653	13.9	4,032

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Any event (n=32,299)	15.6	5,384	13.4	3,793

Table 3: Equality of transfers by the number of children

Measure of parental transfer	Number of Children in family			
	2 (n=1,309)	3 (n=976)	4 (n=611)	5 (n=472)
% Giving to at least one child	31	32	31	28
<i>Over those giving...</i>				
Percent children receiving	69	50	39	29
Percent giving the same to all	14	5	4	0
<i>Of those receiving</i>				
Percent receiving the same	37	29	27	20
Source: McGarry and Schoeni (1995)				

Table 4
Equality of transfers by the number of children

Measure of parental transfer	Number of Children in sample			
	2	3	4	5 +
Number of observations	1000	714	488	254
% of families making at least one	74.7	78.2	70.1	65.1
Single year transfers (avg of 9 reports)				
<i>Exactly equal</i>	15.9	4.4	1.7	4.9
<i>Within 10 percent of mean</i>	17.0	6.0	5.4	4.9
<i>Within 20 percent of mean</i>	19.7	6.2	5.6	5.0

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Aggregated 1992-2008 real dollars				
<i>Exactly equal</i>	5.0	1.1	1.2	1.7
<i>Within 10 percent of mean</i>	14.2	2.3	1.5	1.7
<i>Within 20 percent of mean</i>	22.9	4.3	2.3	2.3

Probability and Amount of Transfer

<i>Child Vars</i>	OLS		Family F.E.	
	Prob	Amt	Prob	Amt
Inc (\$10,000s)	-0.013***	-61.2***	-0.014***	-64***
<i>Schooling</i>	<i>0.003***</i>	<i>26.7</i>	<i>-0.001</i>	<i>-25.8</i>
Married	-0.028***	-217***	-0.028***	-166.6***
Own home	-0.023***	-28.3	-0.018***	-20.6
Enrolled	0.079***	807***	0.060***	793***
Num children	0.010***	27.7	0.010***	50.5**
Male	-0.011***	-30.6	-0.017***	-85.5

Transfers are...

- Positively related to parental resources (not shown in table)
- Positively related to child's education in OLS but
 - No relationship when controlling for family fixed effects
- Positively related to being in school
- Negatively related to marriage indicator
- Positively related to grandchildren
- Less likely for nonwhites

Other forms of transfers

- Cross sectional measures of inter vivos giving provide an incomplete picture of transfers
 - Missing year to year variation in giving
 - **Omit bequests / inheritances entirely**
 - **Missing many educational transfers**

Distribution of bequests

- Bequests divided equally (Menchik 1980, 1988)
 - Wilhelm (1996) uses estate tax returns, finds 88% approximately equal
 - With data on wills that are written:
 - McGarry (1999) finds 83% of wills divided equally
 - Light and McGarry (2004) find 92% divided equally
- Inter vivos are by and large unequal
 - 6% of HRS respondents and 25% of AHEAD make equal inter vivos to all children (McGarry, 1999).

Transfers to Children: Bequests

- In contrast to inter vivos transfers, differences in receipt not related to income
- Altruism:
 - “oldest son has more assets than youngest”
- Exchange
 - “_____takes care of me”
 - “leaving more to son who helped maintain property”
- Evolutionary
 - “it will be divided between biological children”

Why do patterns differ?

1) Bequests are public.

- Parents are concerned that unequal bequests will make children unhappy (Wilhelm '96; Bernheim and Severinov '03).

But....

- Can “hide” distribution through trusts
- Anecdotal evidence that children redistribute among themselves

Why do patterns differ? (cont'd)

- 2) Future income of children is uncertain, negative shocks may even out over time (McGarry, 1999).
- See unequal bequests when one child has a severe problem (disability)

Why do patterns differ? (cont'd)

3) Social norms about behavior.

- Financial planners / attorneys writing wills suggest equality
- Default option is equal which may help set norm
- Differences in opportunity vs. outcomes



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Third type of transfer: Tuition

- How does support for schooling vary?
- Theory predicts that within family investment in education will proceed until rate of return for additional schooling equals market rate of return. (Gary Becker)
- If additional transfers are desired, they will be made as cash transfers
- Little empirical work due to data demands
 - Inter vivos transfers and schooling transfers
 - Information on all children
 - Information over time

Tuition (continued)

- If siblings differ in ability they ought to receive different educational investments
 - Relationship depends on education production function, could be positively or negatively related to ability
 - Are unequal schooling transfers offset with cash transfers as parents try to equalize MU of consumption?

Tuition (continued)

- Alternatively, does public aspect of giving → equal treatment?
- Or, are certain children favored with respect to both inter vivos transfers and schooling investments?

Motivation

- Do parents equalize total transfers or total resources?
 - Compare distribution of transfers across children
 - Focus on correlation between schooling and cash transfers
 - Do they offset each other as an investment model or earnings / total transfers ?

Approach

- Combine the following:
 - Past tuition transfers
 - Inter vivos transfers over extended period of time (up to 17 years)
- More complete view of transfers in general and within family differences
 - Schooling and cash transfers
 - Differences across siblings

Data: HRS

- Constructed from all cohorts of the HRS
 - Initial HRS cohort (1931-1941) interviewed in 1992
 - AHEAD cohort (1923 or earlier) interviewed in 1993
 - Children of the Depression Era (1924-1930) interviewed '98
 - War Babies (1942-1947) interviewed '98
- Detailed data on inter vivos transfers
- Merge with the Human Capital and Educational Expenses Mail Survey (HUMS), 2001

HUMS Data Supplement to HRS

- Sub-sample of 3,862 households sent survey, 3,031 responded (78.5 percent response rate)
- Asked parents to report college costs for all children
 - Data on college attendance
 - *Fraction* of tuition and room & board paid by parent
 - Public or private institution, in-state vs. out-of-state
 - Years attended and degrees earned
 - Name of institution (not made public).
- Sample representative of population with at least one child with college attendance

Figure 1: Parental contribution to tuition

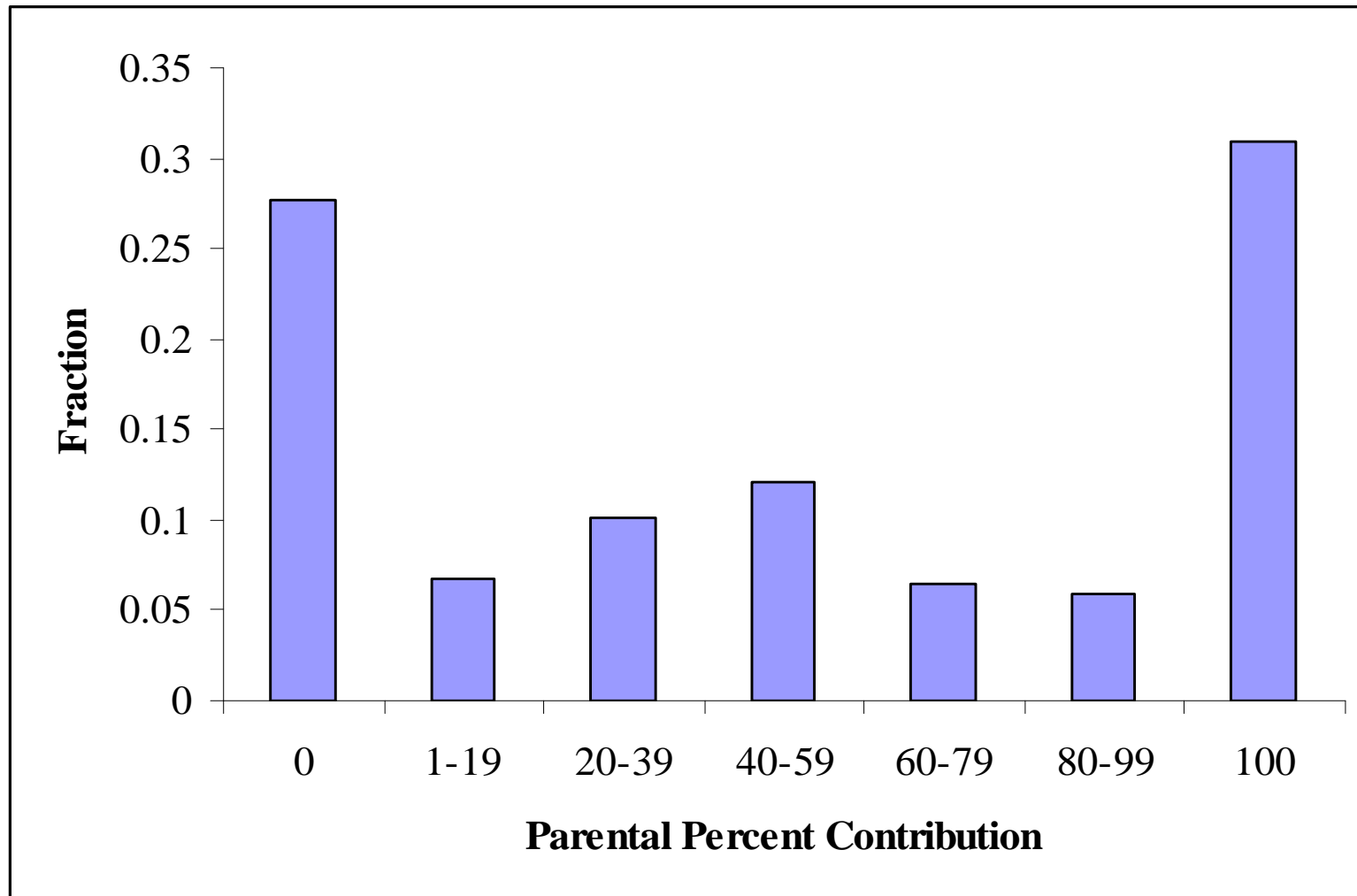


Figure 2: Parental contribution room & board

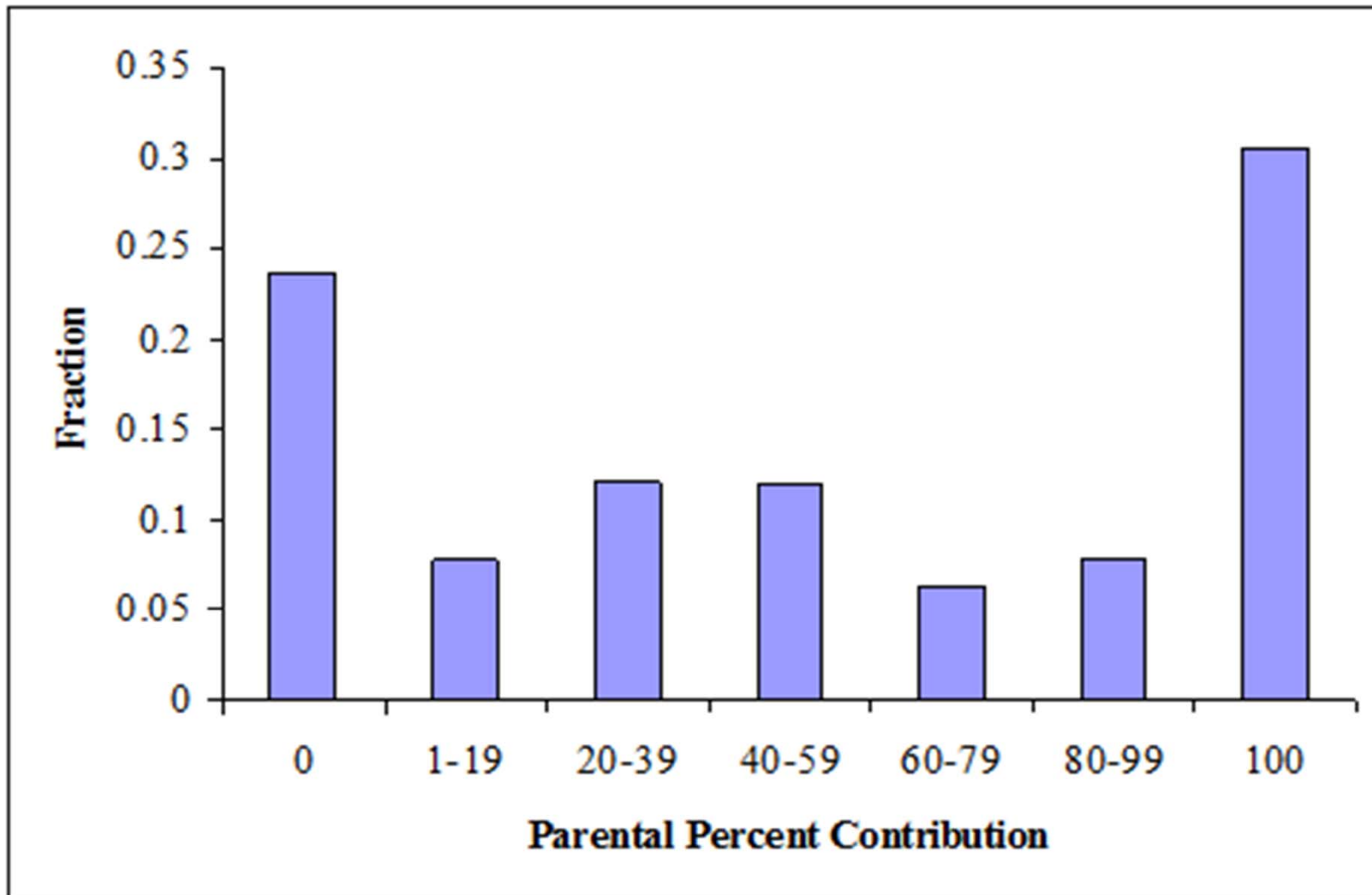


Table 5: Fraction of parents making equal transfers

	Number Children in sample			
	2	3	4	5+
<i>Total tuition + Room and Board :</i>				
+/- 10 % all families	0.46	0.40	0.42	0.55
+/- 10 % at least one	0.16	0.05	0.00	0.01

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+/- 10 % at least one	0.16	0.05	0.00	0.01
<i>Cash transfers 2000-2008:</i>				
+/- 10 % all families	0.50	0.47	0.51	0.50
+/- 10 % at least one	0.17	0.08	0.06	0.03

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+/- 10 % all families	0.50	0.47	0.51	0.50
+/- 10 % at least one	0.17	0.08	0.06	0.03
<i>Cash transfer 2008 + Schooling transfers:</i>				
+/- 10 % all families	0.40	0.33	0.37	0.45
+/- 10 % at least one	0.15	0.05	0.0	0.01

Table 7: Correlation between Transfer Types

Variable	OLS	F.E.	OLS	F.E.
<i>Schooling \$</i>	469***	8.54	293	9.16
Male			-1273	126
Age			-43	-110**
Num siblings			-595***	
Married			-4701***	-2580***
Num own kids			871**	-766***
Income				
Schooling				
Mean dep var		6,793		6,881
Num obs		5,915		5,857

Table 7: Correlation between Transfer Types

Variable	OLS	F.E.	OLS	F.E.
<i>Schooling \$</i>	293	9.16	345	24
	(219)	(22)	(260)	(24)
Male	-1273	126	-1528	171
Age	-43	-110**	-30	-85**
Num siblings	-595***		-790***	
Married	-4701***	-2580***	-2333***	-1259
Num own kids	871**	-766***	651**	734***
Income			-53**	-47***
Schooling			-922	-133
Mean dep var		6,881		6,972
Num obs		5,857		5,676

Conclusions

- Parents give generously to children
 - Schooling, inter vivos, bequests
 - Each type of transfers appears to follow different pattern for giving.
- Amounts per child fall with sib-size but total given increases
 - Inter vivos transfers, schooling transfers are unequal
 - Equality does not increase with larger window
- Inter vivos transfers are not correlated with schooling investments
 - Parents do not compensate children for differences in schooling investments.

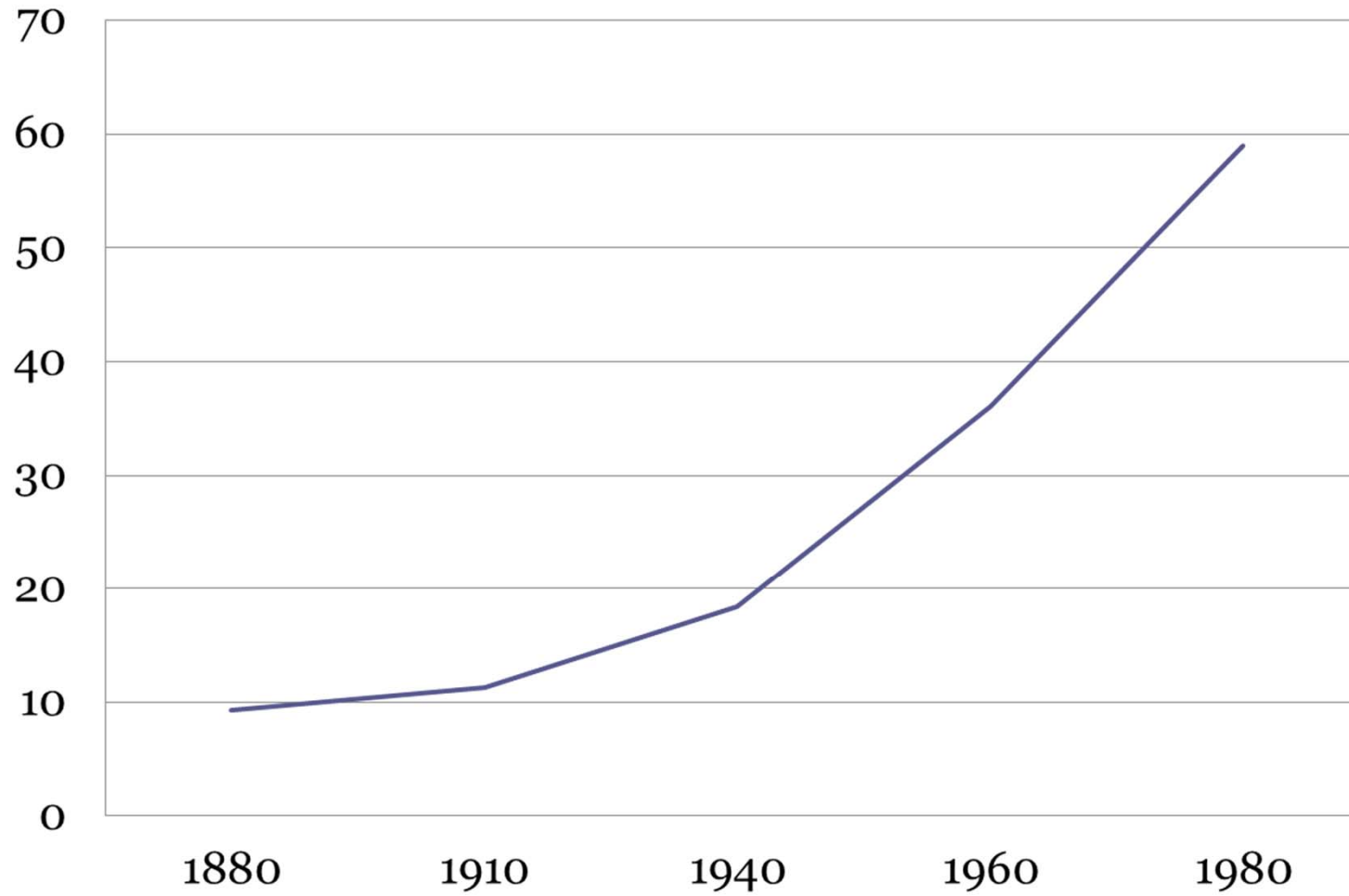
Alternative Forms of Transfers

- May be used more frequently by lower-income population
 - Time help
 - Elder care, grandchild care, errands
 - Co-residence
 - Facilitates other forms of transfers such as caregiving

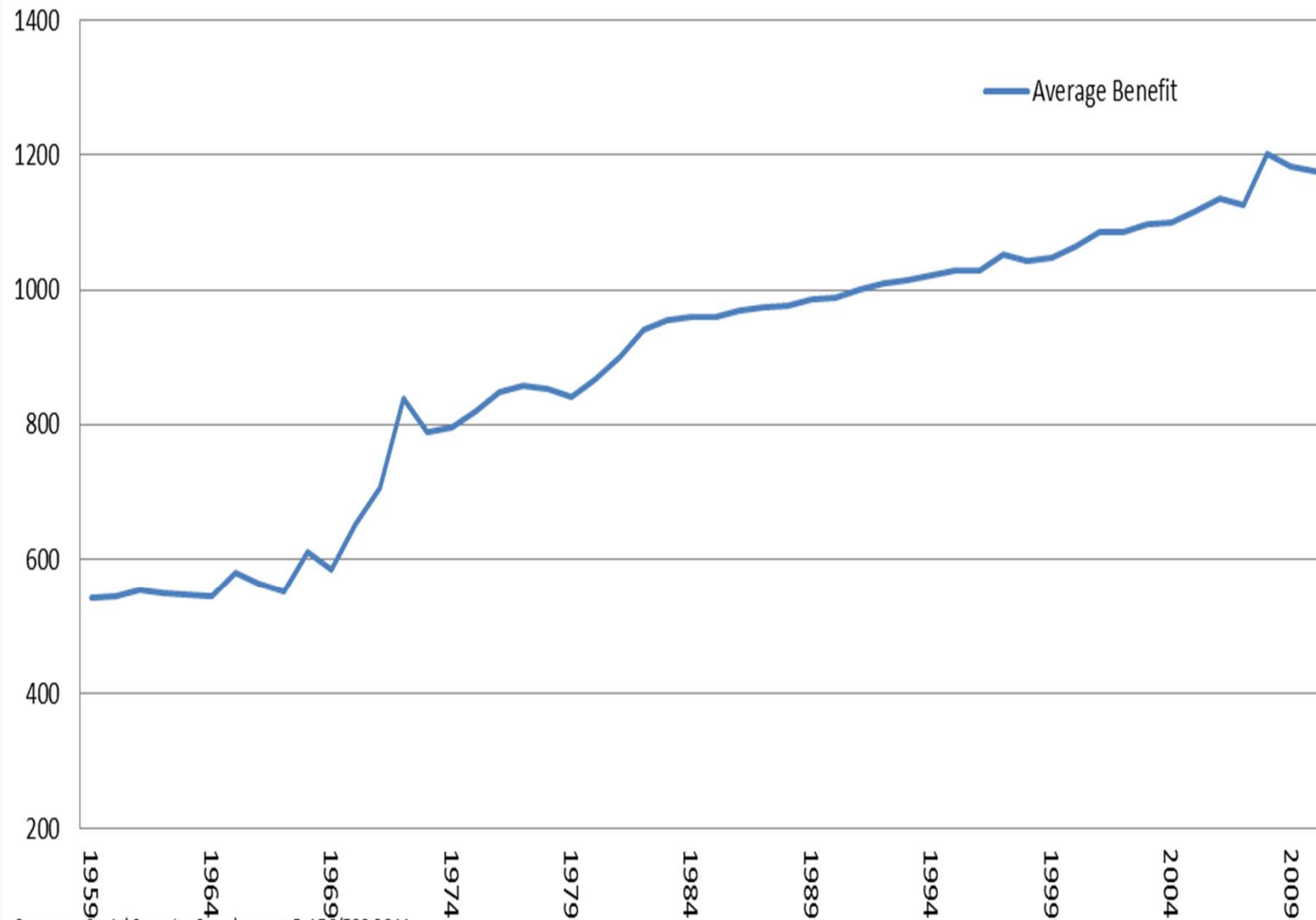
Financial and Time To Parents

	Income Quartile			
	1 st (lowest)	2 nd	3 rd	4 th
% giving time only	5.9	9.1	5.5	6.8
% giving cash only	4.5	7.9	10.7	11.6
% giving both	0.6	1.1	1.2	1.3
% giving any	11.0	18.1	17.4	19.7

Fraction of elderly widows living alone



Average Real Monthly Social Security Benefit 1959-2010



Sources: Social Security Supplement, P-156/529 2011