

Institute for  
Fiscal Studies

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## A tale of three distributions: inheritances, wealth and lifetime income

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# Overview

- We provide new evidence on the impact of receipt of inheritances and other intergenerational transfers on inequality in wealth and lifetime incomes
- We look at the impact of wealth transfers on the distribution of a broad measure of wealth including state and private pensions
  - Find that effect on inequality is negligible
- We show that our results provide the best available guide to the impact of wealth transfers on inequality in lifetime incomes
  - Broader measure of wealth roughly proportional to lifetime income

# Perceptions and previous literature

- Usually assumed in public debate that inheritances and gifts increase wealth inequality
  - Likelihood and size of receipt correlated with other indicators of socioeconomic advantage
- But previous literature finds wealth transfers reduce inequality (or at least do not increase it)
  - Wolff (2002) and Wolff and Gittleman (2013) for the US
  - Klevmarken (2004) for Sweden
  - Karagiannaki and Hills (2013) for the UK
- All look at marketable wealth (ie. excluding pension wealth)

# Data: English Longitudinal Study of Ageing (ELSA)

- Biennial panel survey of over 50 population in England
  - Similar to HRS in the US and SHARE in Europe
  - Contains detailed information on income and wealth holdings
- We use a representative sample of 3,750 individuals aged 65 to 79
- Construct three measures of wealth
  1. “Non-pension wealth”: net financial wealth, net property wealth and physical wealth
  2. “Total private wealth”: non-pension wealth + estimated value of private pension income
  3. “Total wealth”: total private wealth + estimated value of state pension income

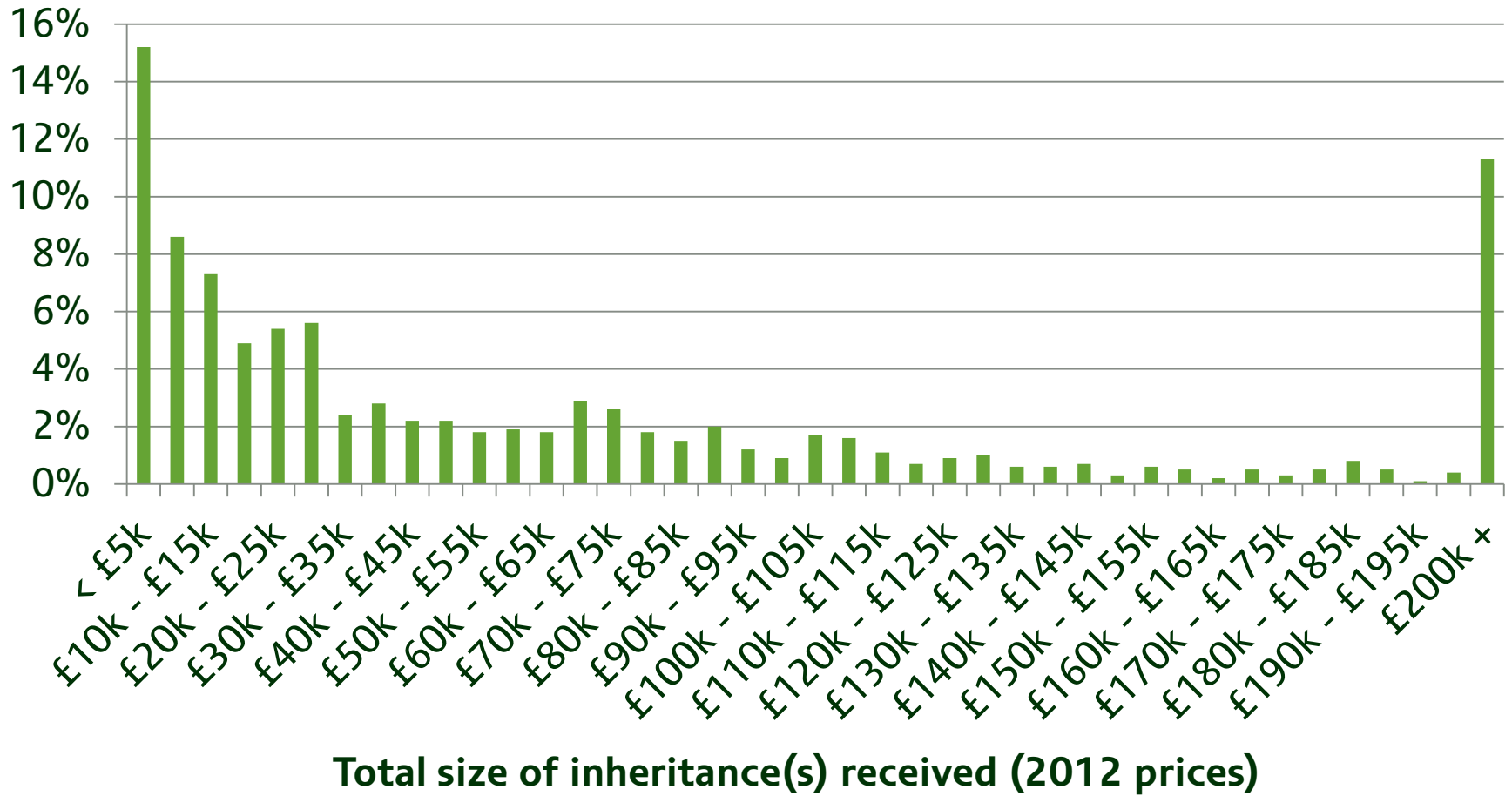
## Distributions of different wealth measures

<i>Household wealth per person (2012 prices)</i>	<b>Non-pension wealth</b>	<b>Private wealth</b>	<b>Total wealth</b>
Mean	£212,028	£326,263	£466,671
Median	£141,160	£230,261	£373,123
Gini coefficient	0.524	0.482	0.338
Top 10% share	37.6%	33.3%	26.1%

# Data: lifetime receipt of inheritances and gifts

- Wave 6 of ELSA (2012/13) asked respondents about the value of up to 3 inheritances and large gifts ( $> \text{£}1000$ ) over their lifetime
  - Nearly a third of our sample (65-79s) have received an inheritance, and 6% have received a large gifts

# Distribution of size of inheritances received



Total size of inheritance(s) received (2012 prices)

# Data: lifetime receipt of inheritances and gifts

- Wave 6 of ELSA (2012/13) asked respondents about the value of up to 3 inheritances and large gifts (> £1000) over their lifetime
  - Nearly a third of our sample (65-79s) have received an inheritance, and 6% have received a large gifts
- Distribution of inheritances highly unequal...
  - 15% of recipients received <£5,000 in total, 11% more than £200,000
- ... and correlated with education level and household income
- Evidence of correlation in inheritances across partners
  - 53% of those whose partner inherited also received an inheritance, compared to 18% of those whose partner did not inherit



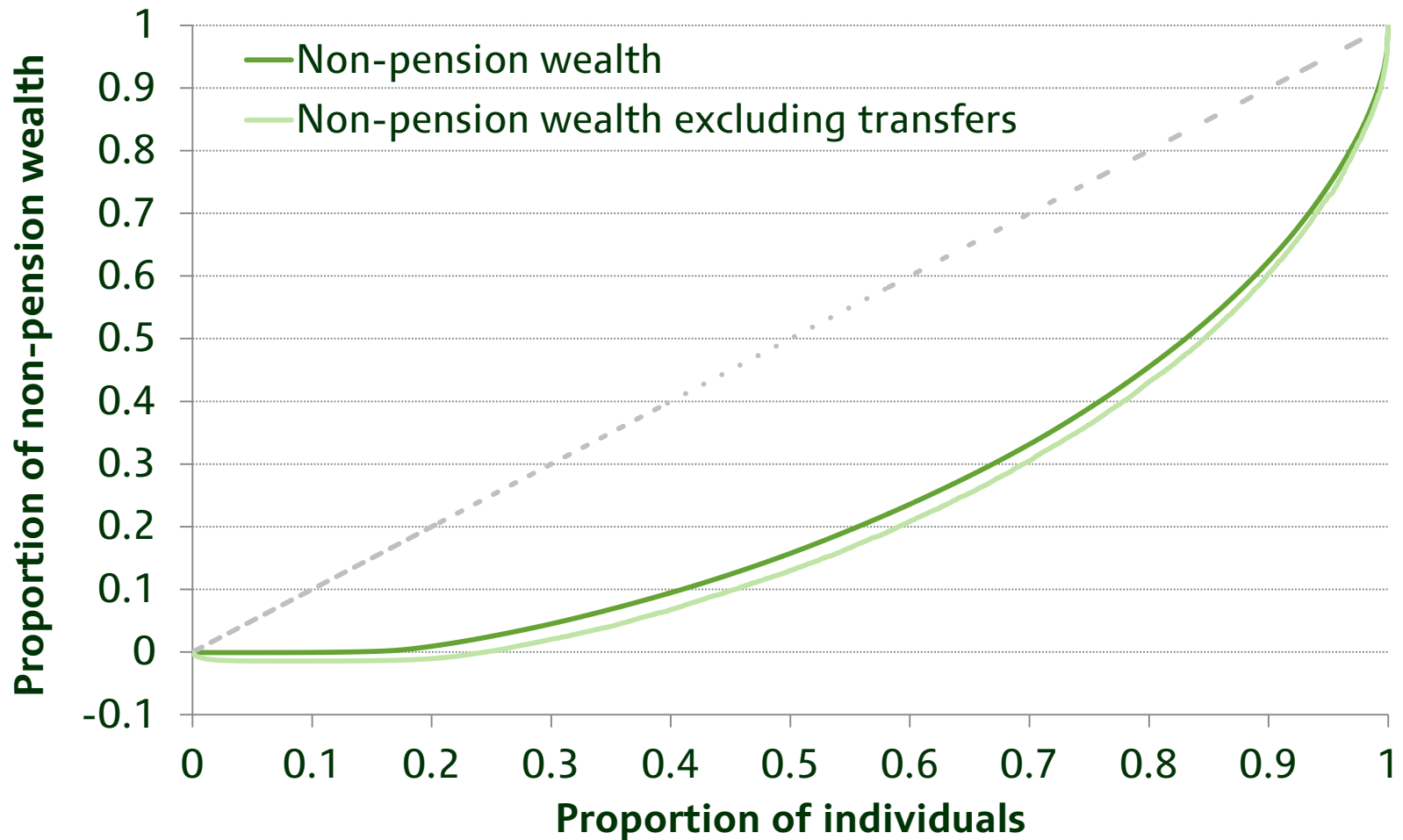
# Calculating the contribution of transfers to current wealth

- Extremely contentious issue in the literature
  - Koltikoff and Summers (1981) vs. Modigliani (1988)
- True impact will depend on the impact of wealth transfers on saving and labour supply decisions
  - We abstract from these behavioural responses throughout
- We capitalise wealth transfers at a real rate of 3% since the time of receipt
  - Simplest interpretation is no crowding out of private saving, no impact on the return to private saving, and 3% real return
  - But could reflect some crowding out, offset by effect of inheritances in increasing return to private saving

# The impact of transfers on wealth inequality

- Given these assumptions, we can split current wealth ( $W$ ) into wealth excluding transfers ( $WX$ ) and wealth transfers ( $T$ )
- Then recover the impact of transfers on wealth inequality by comparing the distributions of  $W$  and  $WX$ 
  - Do this for each of our three measures of wealth

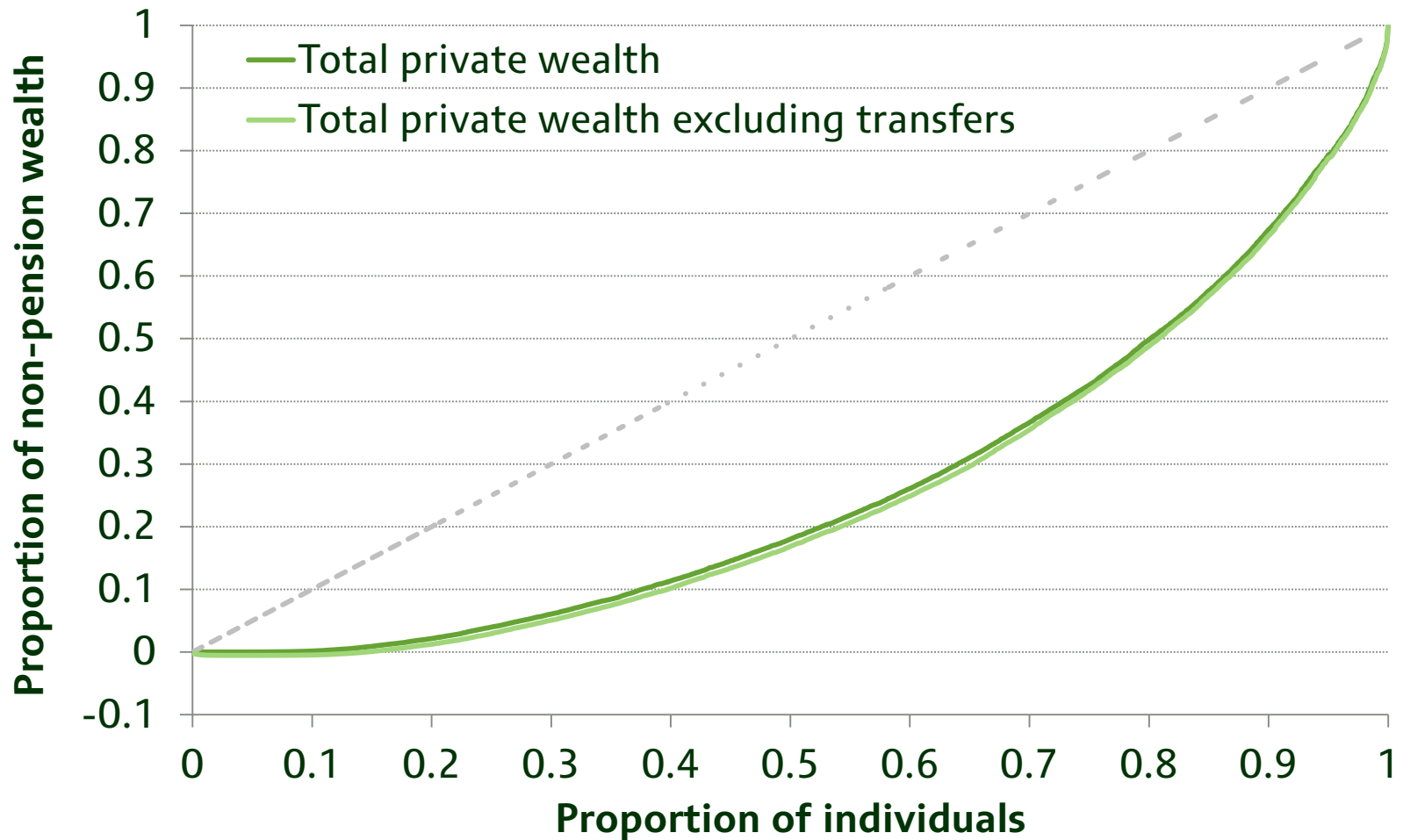
# The impact of transfers on the distribution of non-pension wealth (Lorenz curves)



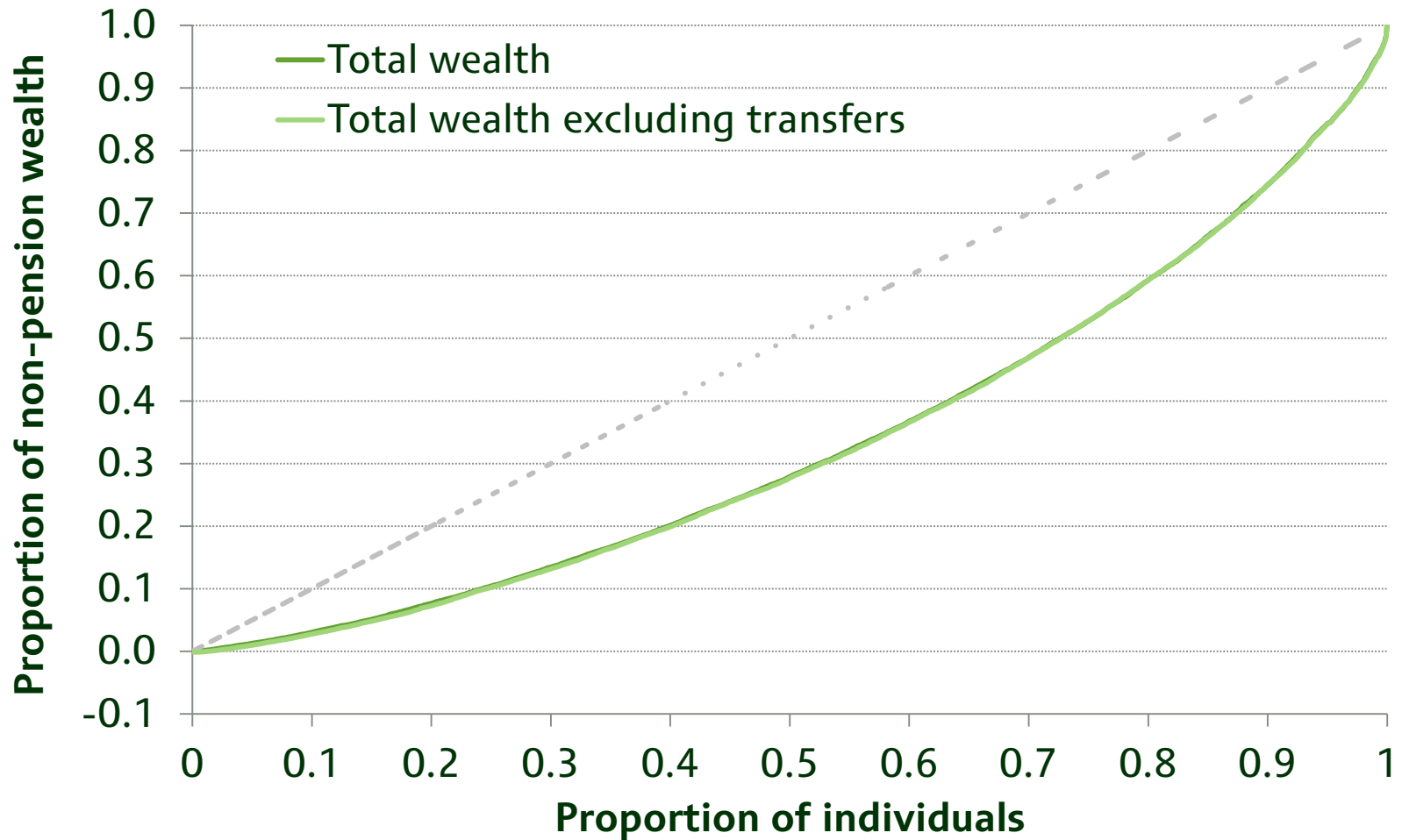
# The impact of transfers on wealth inequality (1)

- Given these assumptions, we can split current wealth ( $W$ ) into wealth excluding transfers ( $WX$ ) and transfers ( $T$ )
- Then recover the impact of transfers on wealth inequality by comparing the distributions of  $W$  and  $WX$ 
  - Do this for each of our three measures of wealth
- Transfers reduce inequality in non-pension wealth
  - Gini coefficient falls from 0.57 to 0.52
  - Top 10% share falls from 39.6% to 37.6%
- Why? Transfers are a bigger *share* of wealth towards the bottom of the distribution

# The impact of transfers on the distribution of total private wealth (Lorenz curves)



# The impact of transfers on the distribution of total wealth (Lorenz curves)



## The impact of transfers on wealth inequality (2)

- Key result: wealth transfers do not reduce inequality in total wealth (including state and private pension wealth)
- Gini coefficient is unchanged (at 0.34) and the top 10% share are also broadly unaffected
- Why? State pension wealth is much more important towards the bottom of the distribution
  - Once it is included, transfers no longer give a disproportionate boost to low-wealth individuals

# What about the impact on lifetime income inequality?

- We do not currently have data containing lifetime incomes and lifetime receipt of wealth transfers for the same individuals
- Our approach is to go “via” the wealth distribution
  - Using data containing both individual’s lifetime incomes and wealth holdings in retirement for a slightly earlier cohort



# Data: the ELSA-NI administrative data link

- Wave 1 of ELSA (2002/03) linked to National Insurance records
  - Records annual earnings since 1975 (topcoded until 1997) and number of weeks worked between 1948 and 1975
  - Can be used to construct full lifetime earnings histories
  - No data on unearned income, state benefits or employer pension contributions
- We construct three measures of net lifetime income
  1. Net lifetime earnings + net lifetime state pension income
  2. Net lifetime earnings + net lifetime state pension income + 0.5\*net lifetime private pension income
  3. Net lifetime earnings + net lifetime state pension income + net lifetime private pension income

# What about the impact on lifetime income inequality?

- We do not currently have data containing lifetime incomes and lifetime receipt of wealth transfers for the same individuals
- Our approach is to go “via” the wealth distribution
  - Using data on both individual’s lifetime incomes and wealth holdings in retirement for a slightly earlier cohort
- Can look at the relationship between net lifetime incomes and our three measures of wealth
  - Do the lifetime rich save more? (Alan, Atalay and Crossley (2014), Bozio et al (2013), Dynan, Skinner and Zeldes (2004), Venti and Wise (1998, 1999, 2000))

# Median regression of the ratio of wealth to net lifetime income (including 50% private pension income)

	Non-pension wealth	Private wealth	Total wealth
Constant	0.155*** (0.010)	0.211*** (0.013)	0.583*** (0.014)
Quintile 2 of net LI	0.003 (0.014)	0.037* (0.019)	-0.051*** (0.020)
Quintile 3 of net LI	0.017 (0.014)	0.102*** (0.019)	-0.016 (0.020)
Quintile 4 of net LI	0.062*** (0.014)	0.127 (0.019)	-0.008 (0.020)
Quintile 5 of net LI	0.111*** (0.014)	0.254*** (0.019)	0.047*** (0.020)

*Notes:* Sample size is 1,567 individuals. \*, \*\*, \*\*\* on constant indicate statistically different from zero at 10%, 5%, 1% confidence interval (respectively). \*, \*\*, \*\*\* on quintile coefficients indicate coefficient is statistically different from the previous quintile at the 10%, 5%, 1% confidence interval (respectively).

# Wealth and lifetime incomes

- Non-pension wealth as a share of lifetime income increases significantly across the lifetime income distribution
  - 16% for bottom quintile, 22% for fourth quintile, 27% for top quintile
  - ie. non-pension wealth is more unequal than lifetime incomes
- Total wealth as a share of lifetime income much more similar across the lifetime income distribution
  - 58% for bottom quintile, 57% for fourth quintile, 63% for top quintile
  - ie. inequality of total wealth similar to that of lifetime income

# Inheritances and lifetime incomes

- (Negligible) impact on inequality in total wealth likely to be better guide than (negative) impact on inequality in non-pension wealth
  - Distribution of total wealth more similar to that of lifetime income
- Impact on distribution of total wealth and lifetime incomes likely to be qualitatively similar
  - Smaller impact on distribution of lifetime incomes
  - Under assumption that correlation between transfers and non-transfer wealth close to that between transfers and lifetime income
- All conclusions for this cohort of older individuals in England
  - Might be different among later cohorts for whom wealth transfers are more prevalent

# Conclusion

- Growing policy concern about the role of wealth transfers in widening inequality and strengthening intergenerational links
  - But academic literature to date suggests transfers reduce inequality in marketable (non-pension) wealth
- We show that this inequality-reducing impact does not hold for a broader measure of wealth including private and state pensions
  - Wealth transfers no longer give disproportionate boost to low wealth households
- Use link to lifetime earnings to suggest negligible impact on total wealth inequality is better guide to impact on lifetime incomes
  - Distributions of total wealth and lifetime incomes similar