

# The Effects of Changes in Women's Labor Market Attachment on Redistribution Under the Social Security Benefit Formula

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# The Social Security Benefit Formula is Highly Redistributive at the Individual Level

After we compute Average Indexed Monthly Earnings (AIME), in 2004 the formula replaced:

- 90% of first \$7,344 per year of annualized AIME
- 32% of next \$36,924 of annualized AIME
- 15% of remainder up to maximum covered earnings

## Redistribution and Family Income

- In some families, total income is equal to the income of the primary earner, and low earning spouses are subsidized.
- In other families, each spouse contributes substantial earnings and spouse and survivor benefits are smaller.
- When the redistribution formula is based on ***individual earnings***, but spouses have very different work histories, and low earning spouses are subsidized, redistribution will not bear as clear relation to family ***earnings***.

# A Decade Ago, 3 Studies Concluded Social Security is Much Less Redistributive at the Family Level Than Individual Level

## ■ Coronado, Fullerton and Glass, 2000

### ■ PSID 1968-89

□ Update, Brown, Coronado, Fullerton, 2006, used PSID 1968-1993

## ■ Gustman and Steinmeier, 2001

HRS 1992 with matched SS earnings data

## ■ Liebman, 2002

SIPP 1990-1991 matched to SS earnings data



# Other studies have investigated this finding.

## ■ Some Agree

- Goda, Shoven and Slavov (2011)

## ■ Some Disagree

- Harris and Sabelhaus (2005)

## Among the Factors Offsetting the Nominal Progression of the SS Benefit Formula.

- Much of Social Security redistribution takes place within the same household, from husband to wife.
- Spouse and survivor benefits are proportionately higher for the wives of high earners – they work less and get higher benefits.
- Low Income individuals do not live as long as high income individuals.

# Subject of Present Study: Has Progressivity of Social Security Changed Over Time?

- With increasing labor market activity of women, and growth in the share of married households with two earners, Social Security benefits should become more redistributive.
  - Smith, Toder and Iams (2003)
- Our aim is to measure the extent to which Social Security has become more redistributive according to family income.

# HRS Data

- Members of households with one person age 51 to 56
- 2004: Early Boomers
- 1992: Original HRS
- Households are excluded from the analysis if one member
  - is a public employee



# Changes from Earlier Study

- ANYPIA in batch mode
- Focus on cohorts from households with a 51 to 56 year old, rather than 51 to 61 year old.
- Differences in economic environment
  - Interest rates lower for 2004 cohort.
  - More households with a single, divorced person.

Table 1: Percentage of HRS Respondents Age 51 to 56 in Labor Force, Working Full Time, and AIME

	<b>HRS Cohort, 51 to 56 in 1992</b>	<b>Early Boomers, 51 to 56 in 2004</b>
	<b>Labor Force Participation</b>	
Males	83	79
Females	64	<b>71</b>
	<b>Percent Working Full Time</b>	
Males	77	74
Females	52	<b>58</b>
	<b>AIME * 12</b>	
Males	\$35,881	\$42,881
Females	\$12,608	<b>\$21,676</b>

# Benefits for HRS Households 1992 and 2004

	<b>Present Value of Benefits Based on Own Earnings</b>	<b>Spouse Benefits (Average Value of Top Up)</b>	<b>Survivor Benefits (Average Value of Top Up)</b>	<b>Total Benefits</b>	<b>Share of Total Benefits Due to Spouse and Survivor Benefits</b>
<b>All Households 2004</b>	220,040	10,473	40,526	271,093	<b>.188</b>
<b>All Households 1992 in 2004 dollars</b>	160,756	11,560	36,574	208,890	<b>.230</b>

# Baseline Measures of Present Value of Benefits to Taxes

- 2004, based on own earnings, **.81**
- 1992, based on own earnings, **.96**
- 2004 household benefits (own benefits for each spouse, spouse and survivor benefits), and taxes, **1.04**
- 1992, household benefits (own benefits for each spouse, spouse and survivor benefits), and taxes, **1.23**

# Present Value of Benefits to Taxes Based on Own Earnings

- Men, 2004, .69
- Men, 1992, .84
- Women, 2004, 1.09
- Women, 1992, 1.25

# Measures of Redistribution

- Benefit/Tax ratio by decile
- Difference between benefits in each AIME decile and average benefit/tax ratio \* taxes paid.
- Share of total benefits redistributed to decile
- Rate of return by decile

## Redistribution Among Individuals in AIME Deciles in 1992 and 2004

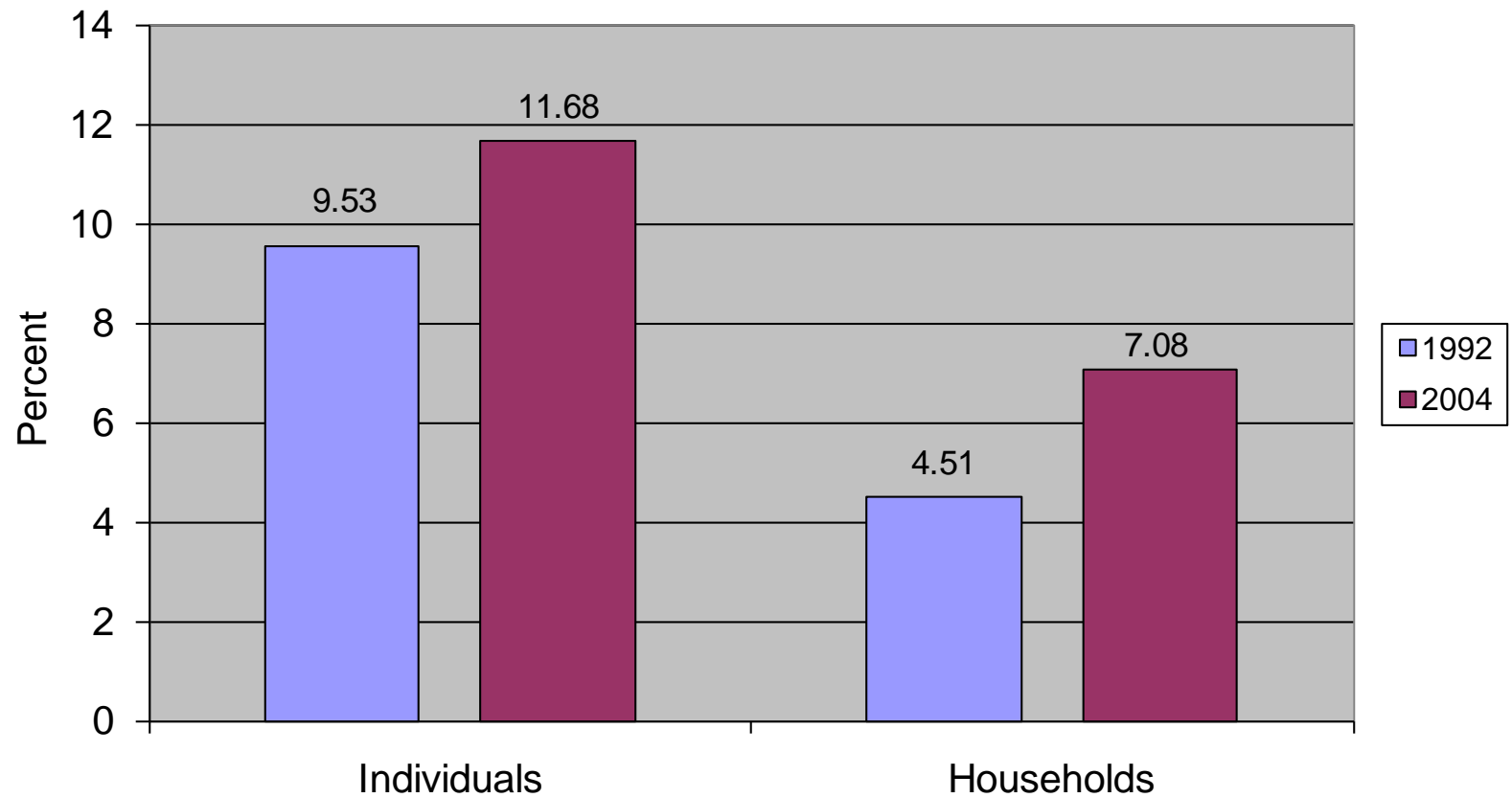
	Annualized Individual AIME Deciles: 2004 (thousands of 2004 dollars)										
	0-4	4-9	9-14	14-20	20-27	27-35	35-44	44-57	57-73	73+	All
PV Benefits/PV Taxes	0.70	1.53	1.59	1.23	1.06	0.91	0.87	0.76	0.65	0.56	0.81
% by which benefits in decile are increased	-34	77	84	46	22	10	0.8	-9	-20	-32	-
Share of total benefits redistributed to the decile	-0.30	2.06	3.42	3.01	1.96	1.13	0.11	-1.51	-3.50	-6.38	11.68
	Annualized Individual AIME Deciles: 1992 (thousands of 2004 dollars)										
	0-1	1-4	4-8	8-13	13-19	19-27	27-35	35-44	44-52	52+	All
PV Benefits/PV Taxes	0.00	0.85	1.71	1.65	1.32	1.15	1.01	0.86	0.81	0.76	0.98
% by which benefits in decile are increased	-98	-19	68	64	34	15	0.4	-11	-16	-20	-
Share of total benefits redistributed to the decile	-0.30	-0.26	1.92	3.24	2.65	1.65	0.07	-2.00	-3.02	-3.95	9.53

# Redistribution Among Household by AIME Deciles in 1992 and 2004

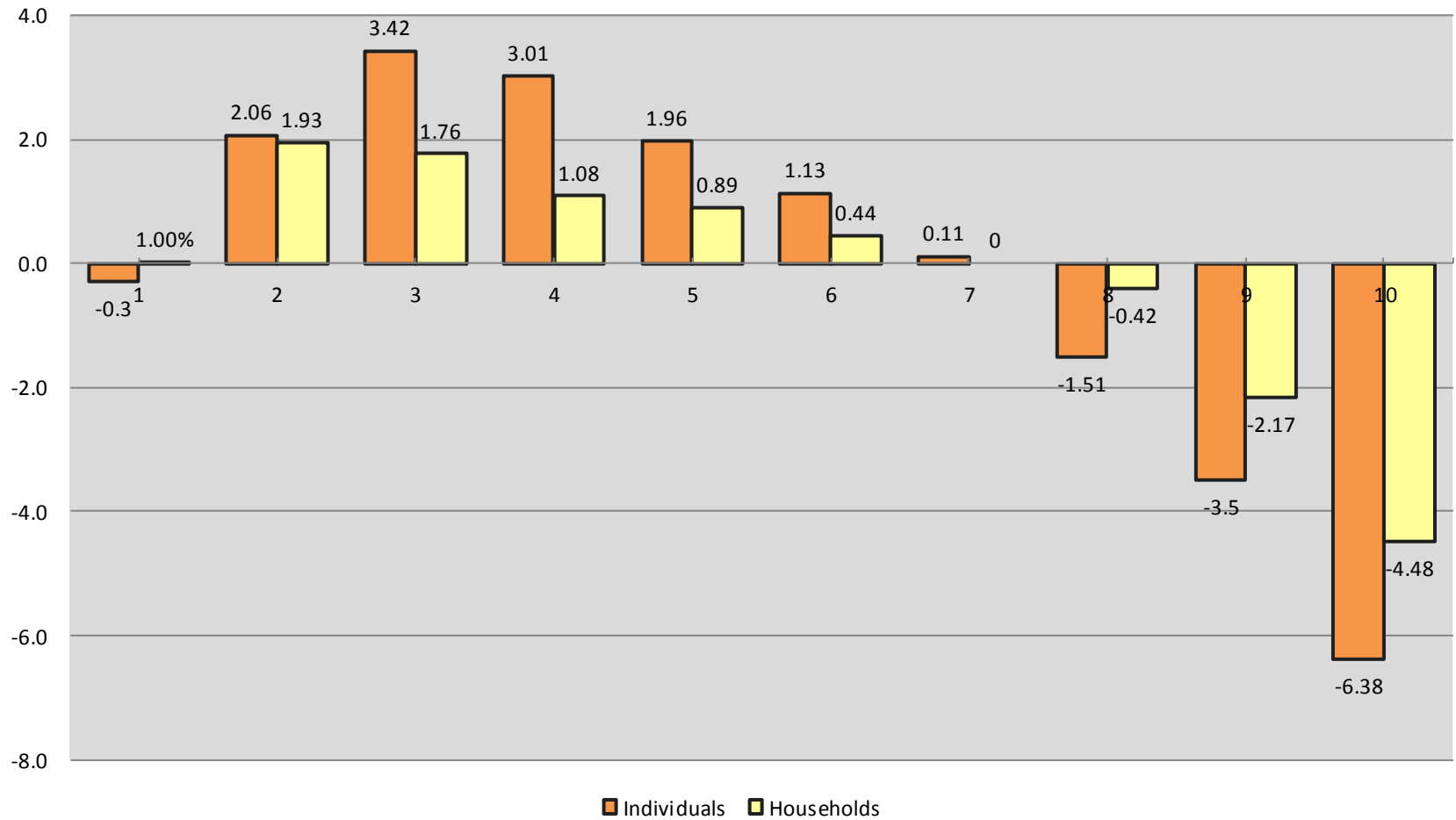
	Annualized Household AIME Deciles: 2004 (thousands of 2004 dollars)										
	0-12	12-23	23-33	33-41	41-52	52-63	63-75	75-88	88-103	103+	All
PV Benefits/PV Taxes	1.72	1.56	1.35	1.19	1.18	1.10	1.07	1.02	0.92	0.80	1.04
% by which benefits in decile are increased	60	49	28	15	10	4	-0.01	-3	-14	-23	-
Share of total benefits redistributed to the decile	1.00	1.93	1.76	1.08	0.89	0.44	-0.00	-0.42	-2.17	-4.48	7.08
	Annualized Household AIME Deciles: 1992 (thousands of 2004 dollars)										
	0-5	5-13	13-21	21-29	29-37	37-44	44-51	51-59	59-69	69+	All
PV Benefits/PV Taxes	0.80	1.79	1.51	1.40	1.37	1.29	1.24	1.20	1.19	1.04	1.23
% by which benefits in decile are increased	-3	45	23	12	9	3	1.1	-2.1	-3.8	-16.1	-
Share of total benefits redistributed to the decile	-0.22	1.13	1.14	0.84	0.86	0.37	0.14	-0.30	-0.63	-3.36	4.51



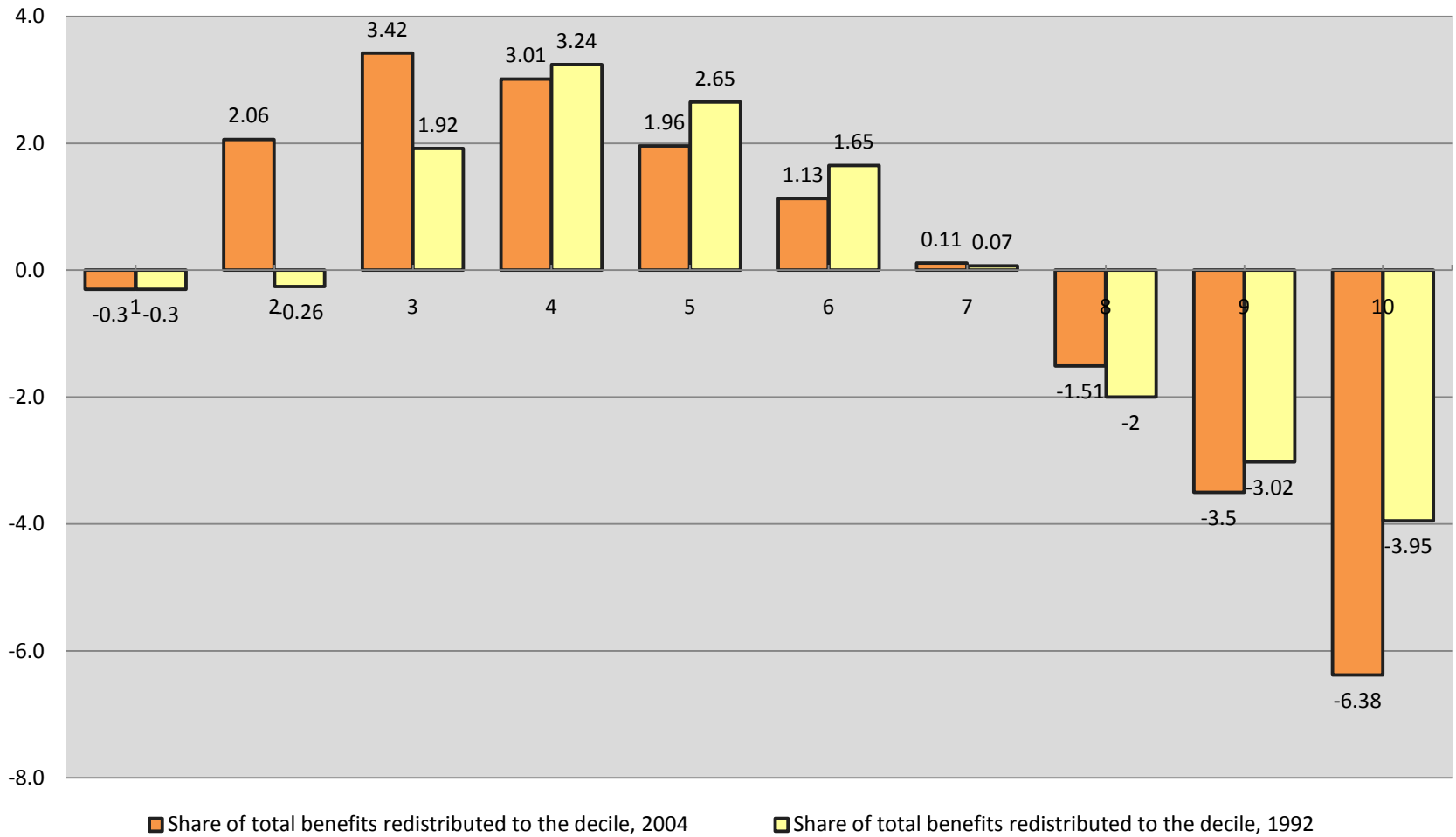
Fraction of Total Benefits Redistributed Among Deciles



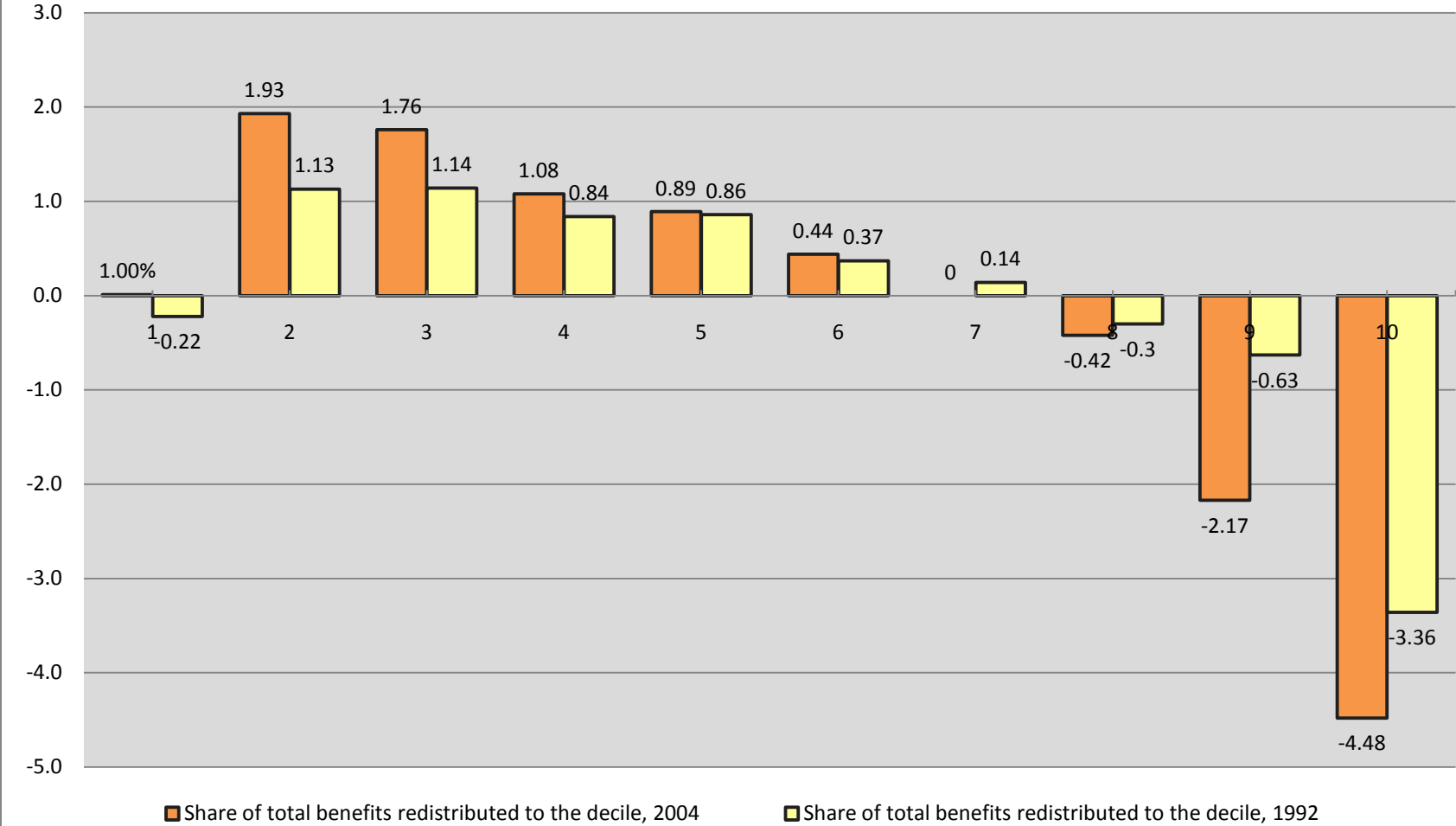
## Share of Total Benefits Redistributed to the AIME Decile, Individuals vs. Households, 2004

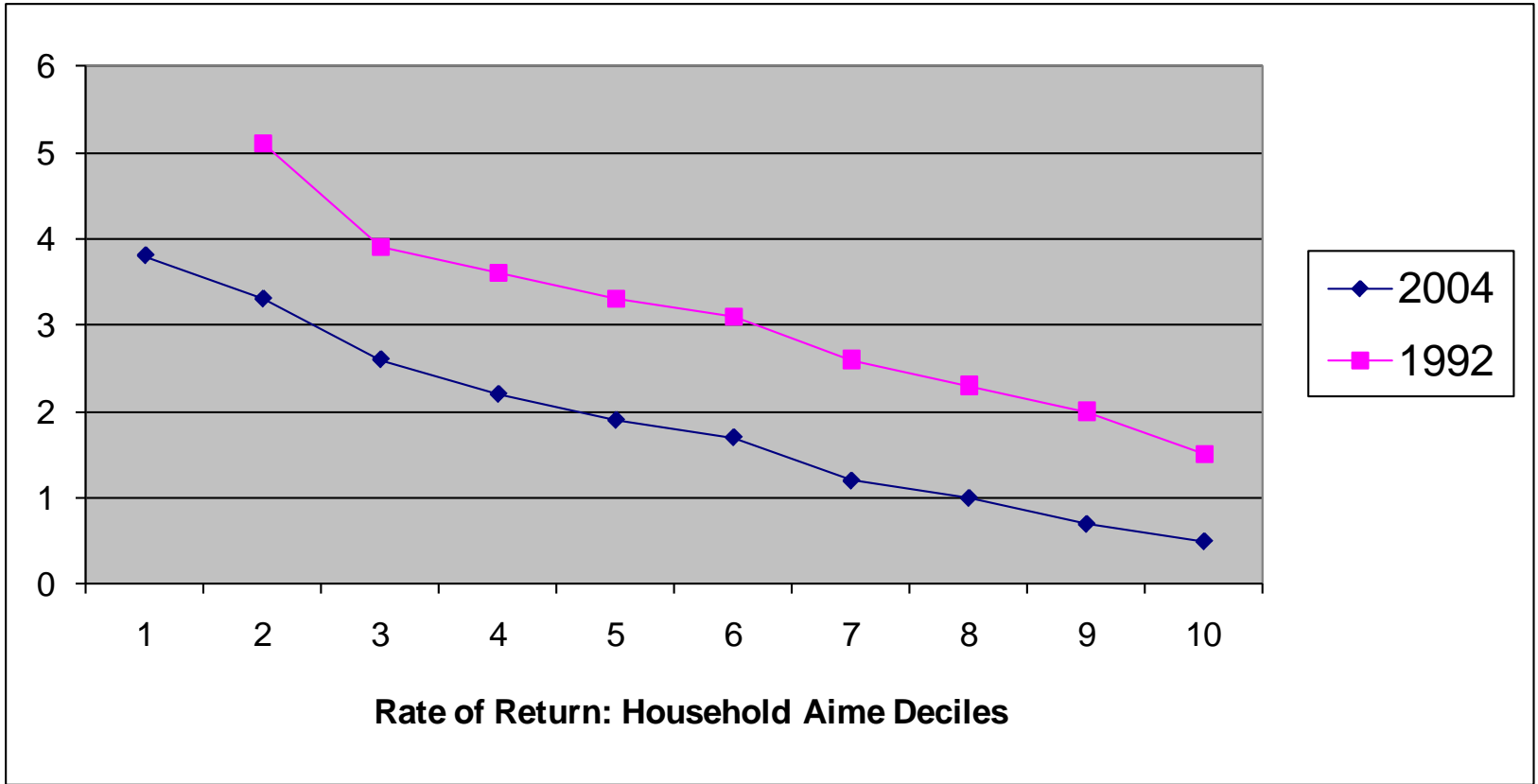


## Redistribution Among Individuals in AIME Deciles in 1992 and 2004



## Redistribution Among Households in AIME Deciles in 1992 and 2004





# Tests of Sensitivity of Findings

- More Households with One Divorced Member in 2004
  - Reweighting 2004 sample to reflect smaller number of divorced households in 1992 increases the share of total benefits redistributed among households from 7.08 to 7.25 percent.
- Interest Rates Lower in 2004 than 1992
  - Benefits about one quarter higher in 1992 using 2004 interest rate.
  - Taxes about one quarter lower in 1992 using 2004 interest rate.
  - Share of benefits redistributed about 15 percent higher in 1992 using 2004 interest rates.
- Still Have to Investigate Changes in Life Expectancy Over 12 Years Between Cohorts.
  - Basic results reflect single adjustment for life expectancy.

# Facts For Policy Makers

- In the past, the Social Security System was not highly redistributive among families with different incomes.
- Most of the redistribution was from families with primarily two earners to families with primarily one earner.
- In 1992, it was hard to argue there was a great deal of redistribution.
- In 2004, the system has become more redistributive, but is still not very redistributive.

# Value Judgments Facing Policy Makers

- Do policy makers want to accept the redistribution observed under the current system as appropriate, or do they want to change the amount of redistribution, either increasing or decreasing it?
- Are policy makers happy with a system that redistributes from two earner families to one earner families? Is the greater concern for equity for working women, or is it to encourage what was the traditional family structure (family values)?