



Australian Government

The Treasury

# The Distribution of Government Support for Retirement Income – Point-in-Time and Lifecycle Estimates

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*Views expressed in this presentation are those of the author and are not necessarily those of any Commonwealth Agency or of the Government*

# Acknowledgements

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- Bruce Bastian
- Michelle Dixon
- Mandy Brown
- Will Wang
- Will Young

Of course they are not responsible for any errors, omissions or inadequacies

# AIM

## Point in time distributions

- **Examine distribution of contributions and earnings tax concessions - 2009-10 ,  
Change in distribution of concessions on contributions 2007-08 to 2012-13**

## Cameo lifecycles

- **Review Rothman and Mercer Studies on Government support for Retirement Incomes Across the Lifecycle**
- **Improve on Mercer study using actual data for incomes, contributions and non-super assets at selected quantiles**

# What is the tax concession on superannuation?

## Using a comprehensive Income Benchmark

- Benchmark is TTE, so the tax expenditure is:
  - Difference between personal marginal tax rate and 15% super fund tax rate on contributions +
  - Difference between personal marginal tax rate and 15% super fund tax rate on earnings –
  - Taxes paid on payouts

## Using Expenditure Tax Benchmark

- Benchmark is EET or TEE

Income Benchmark is most common in Australia

# Data and methodology

**DATA** – Totally confidentialised sample of personal tax and aggregated member contribution statements for 2009-10 and 2007-08.

**TE Methodology** – add contributions and/or earnings to taxable income to estimate counterfactual tax rate

**2012-13 Projection** – RIM's superannuation microsimulation model based on ATO sample data.

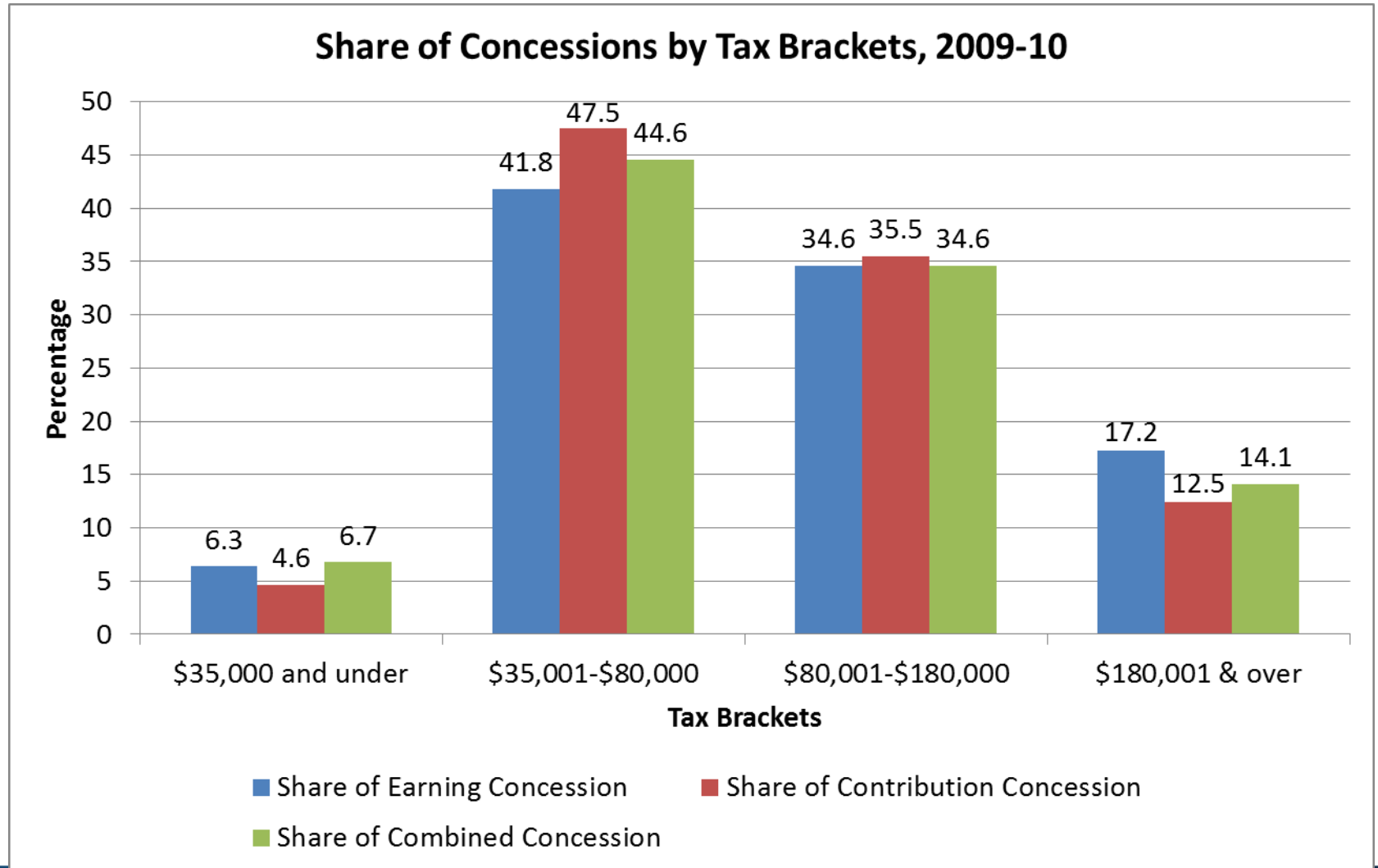
# Tax scales used in this analysis – Medicare levy and LITO are added

	2007-08	2009-10	2012-13
Effective tax free threshold	\$11,000	\$15,000	\$20,542

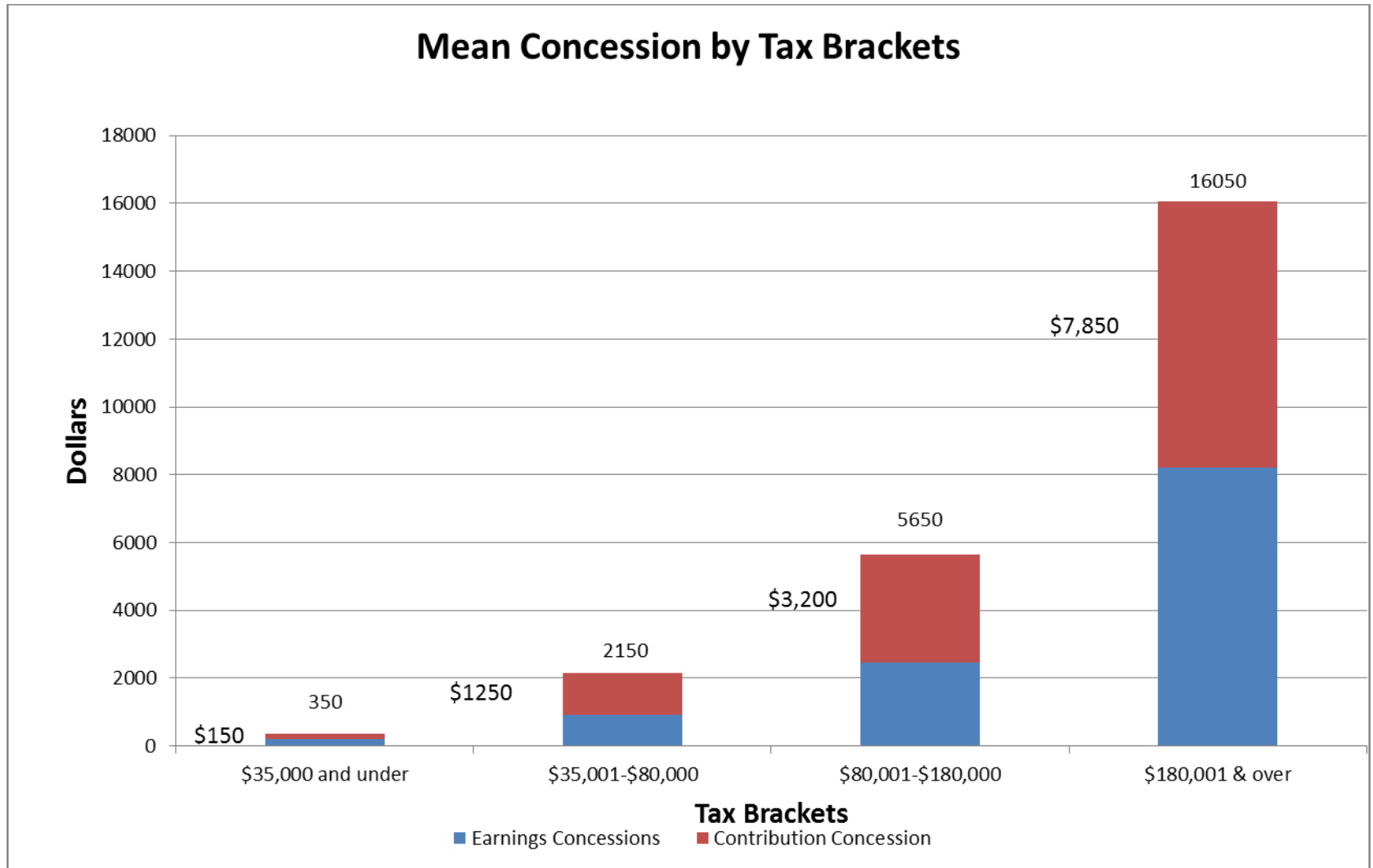
	2007-08			2009-10			2012-13		
Tax Brackets and Rates	Tax range (low)	Tax range (high)	Rate	Tax range (low)	Tax range (high)	Rate	Tax range (low)	Tax range (high)	Rate
Bottom tax bracket	low	\$ 6,000	0%	low	\$ 6,000	0%	low	\$ 18,200	0%
2nd tax bracket	\$ 6,001	\$ 30,000	15%	\$ 6,001	\$ 35,000	15%	\$ 18,201	\$ 37,000	19%
3rd tax bracket	\$ 30,001	\$ 75,000	30%	\$ 35,001	\$ 80,000	30%	\$ 37,001	\$ 80,000	32.5%
4th tax bracket	\$ 75,001	\$ 150,000	40%	\$ 80,001	\$ 180,000	38%	\$ 80,001	\$ 180,000	37%
Top tax bracket	\$ 150,001	high	45%	\$ 180,001	high	45%	\$ 180,001	high	45%

Changes in tax brackets or rates from the previous year have been highlighted in grey

# Shares of Contributions & Earnings Concessions 2009-10, by tax bracket

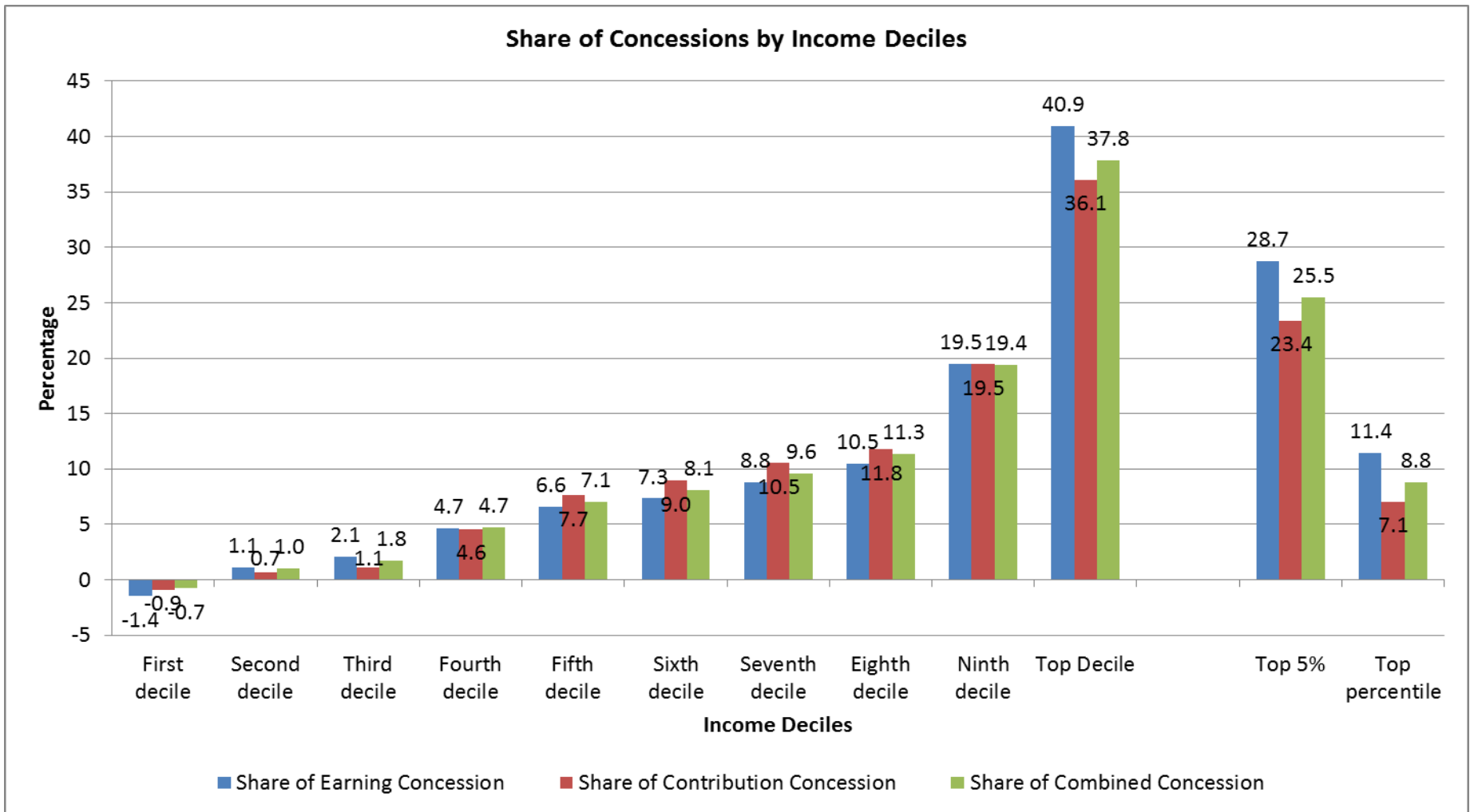


# Mean concession by tax bracket, 2009-10

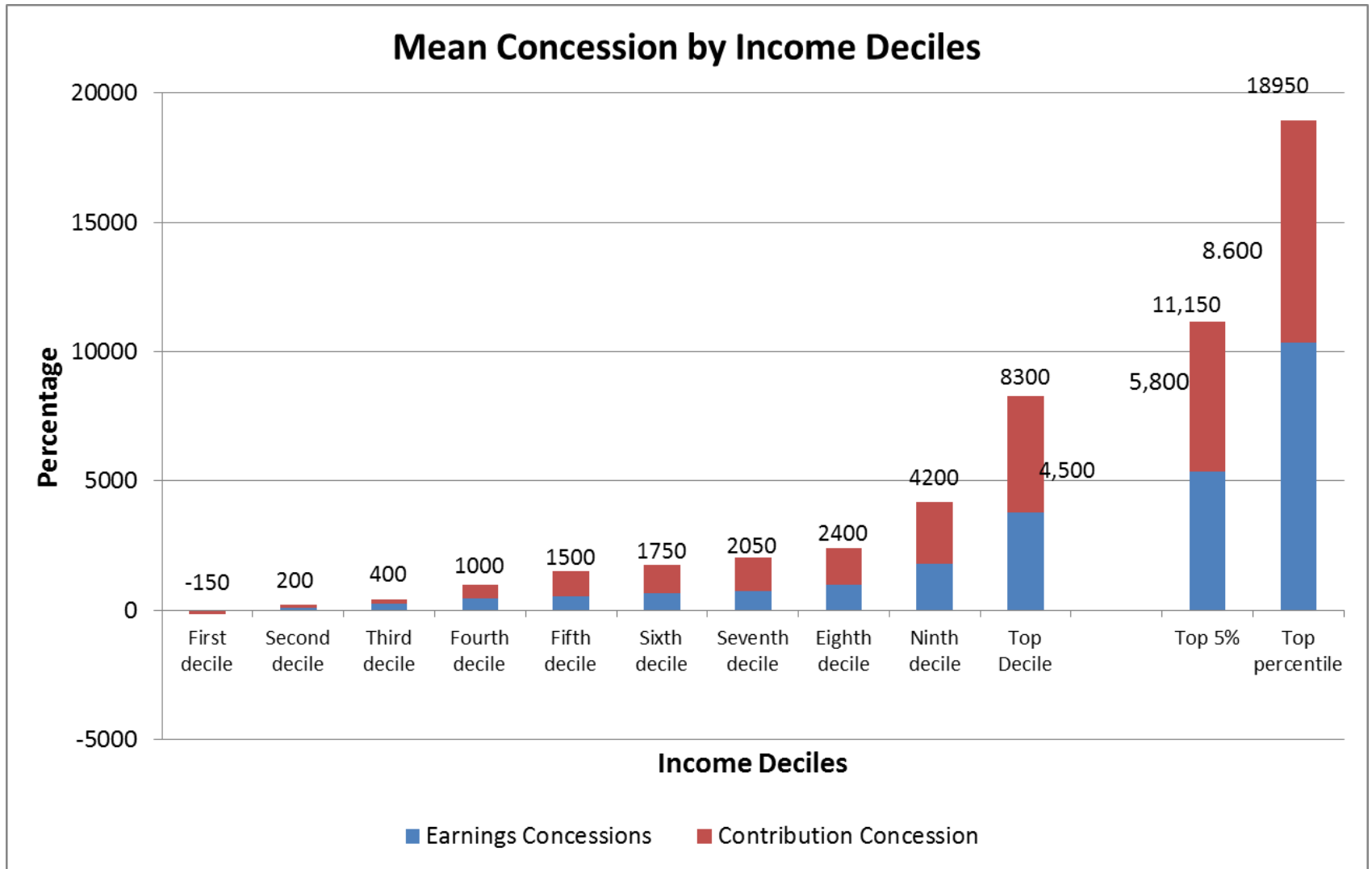




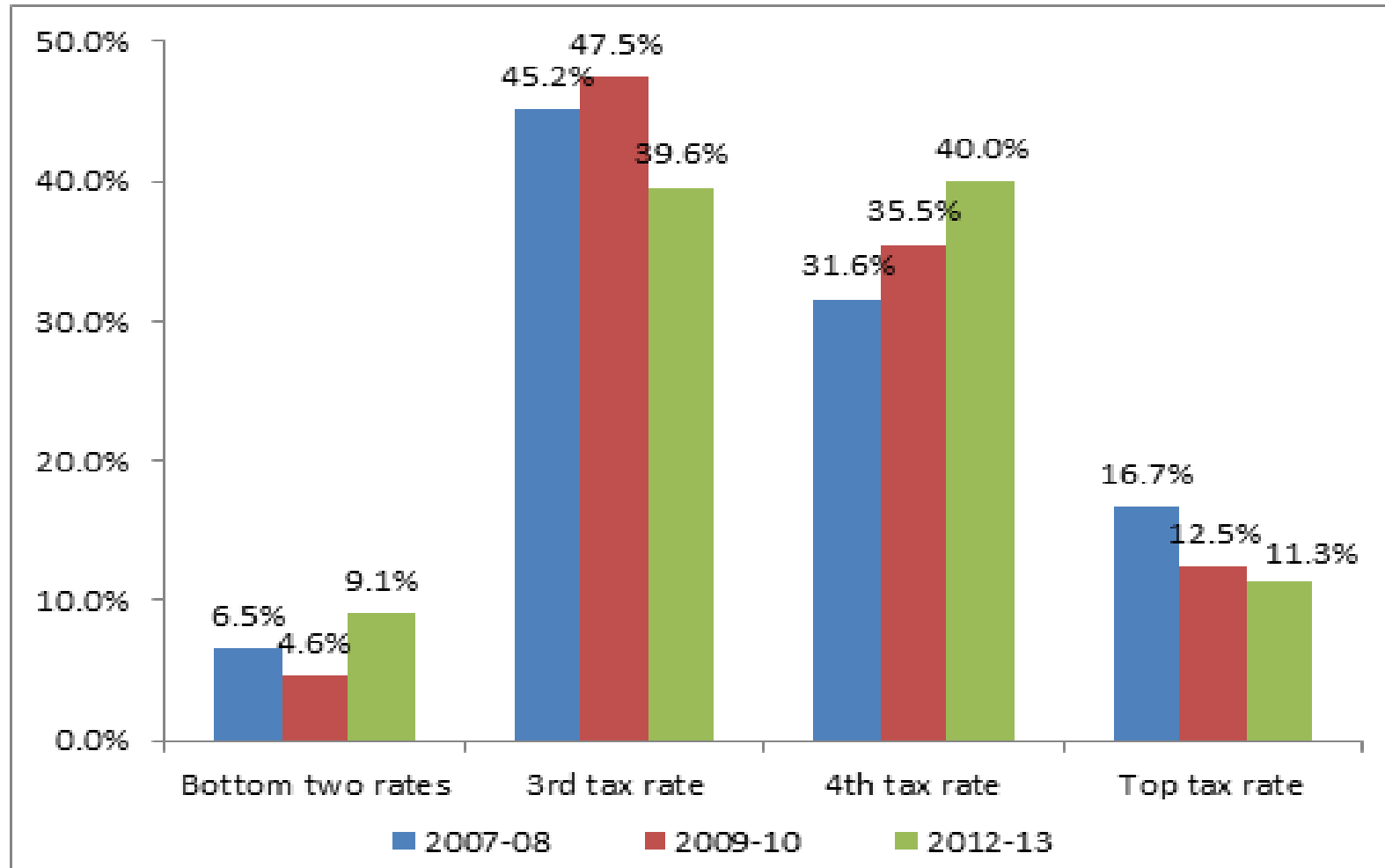
# Share of Contribution & Earnings Concessions 2009-10 by Decile of Taxable Income



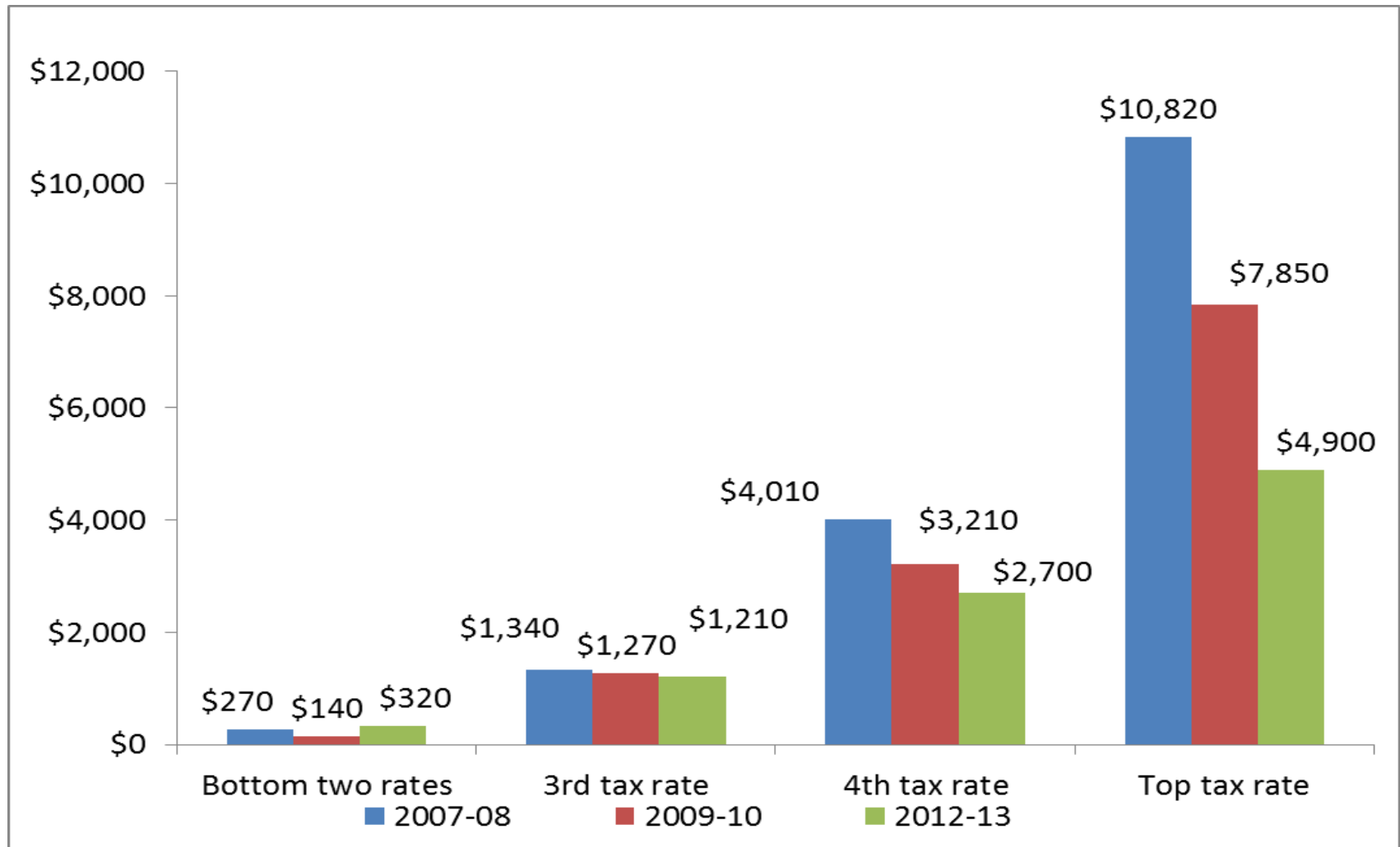
# Mean Concessions by Income Decile, 2009-10



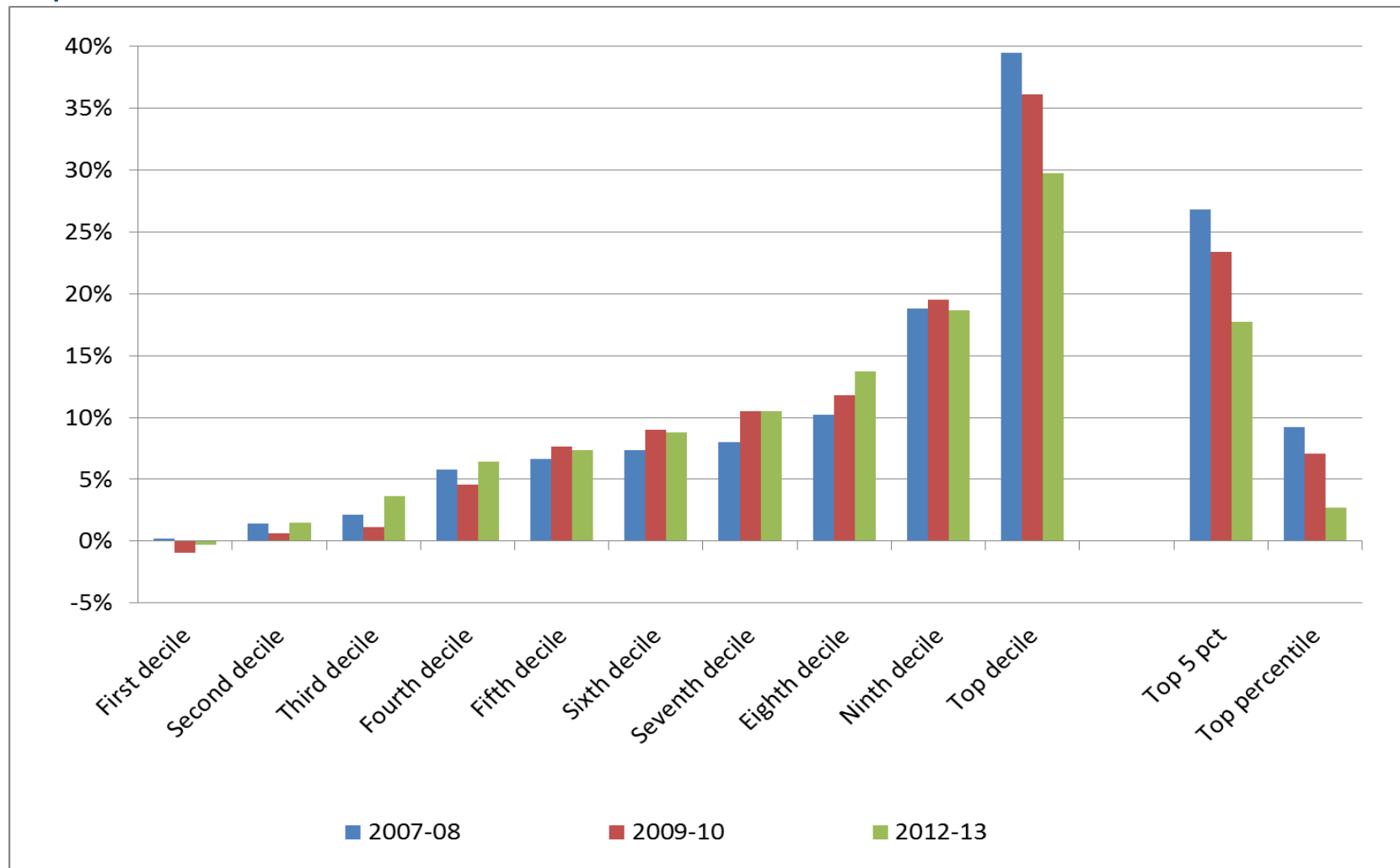
# Contribution Concession Shares by Tax Bracket, 2007-08, 2009-10, 2012-13



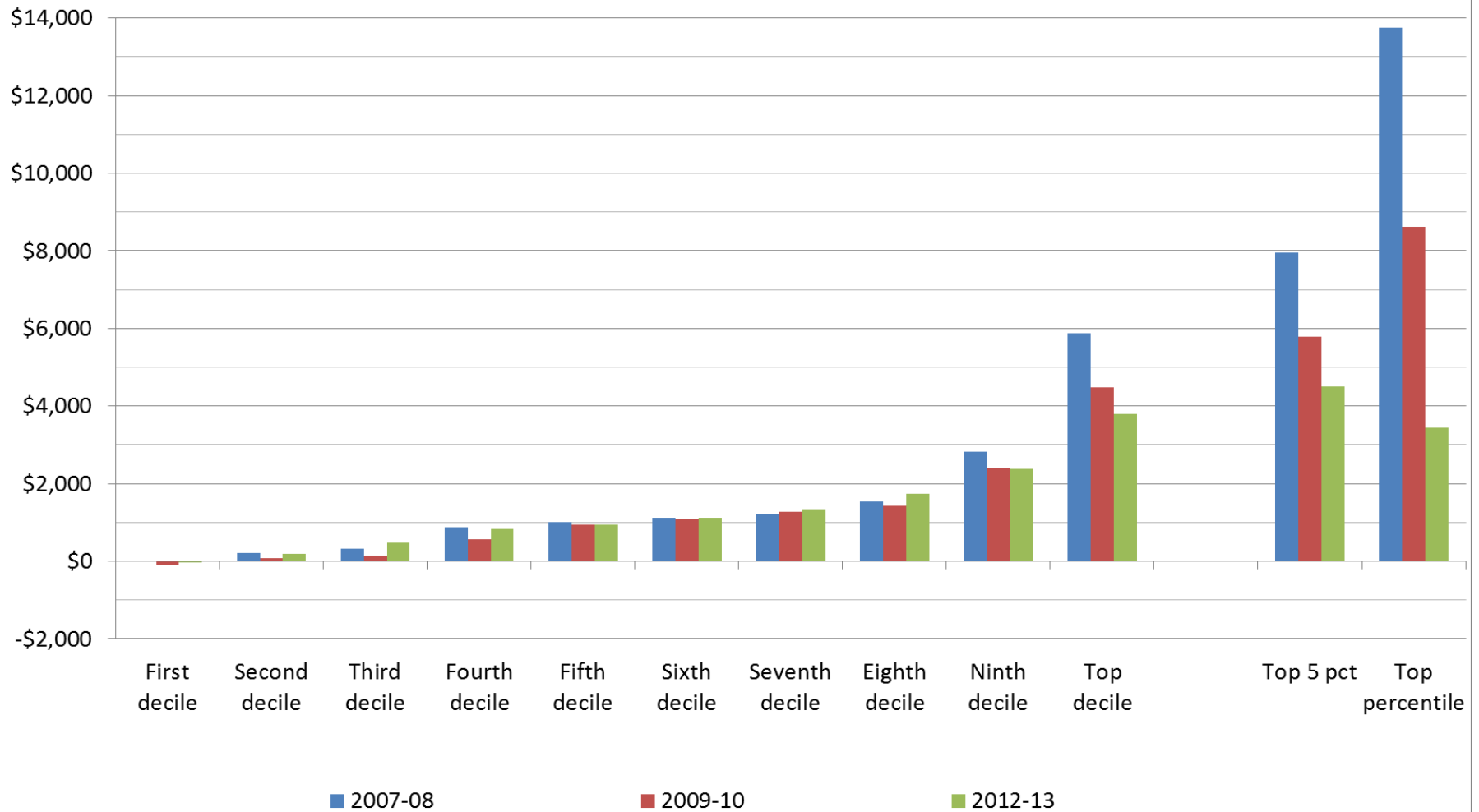
# MEAN Contribution Concession by Tax Bracket, 2007-08, 2009-10, 2012-13



# Changes in SHARES of Contribution Concessions by Decile of Taxable Income – 2007-08, 2009-10, & 2012-13 from Changes of tax scales, income, LISC, SG caps, and ‘VHISCRM’



# Changes in MEANS of Contribution Concessions by Decile of Taxable Income – 2007-08, 2009-10, & 2012-13 from Changes of tax scales, income, LISC, SG caps, and ‘VHISCRM’

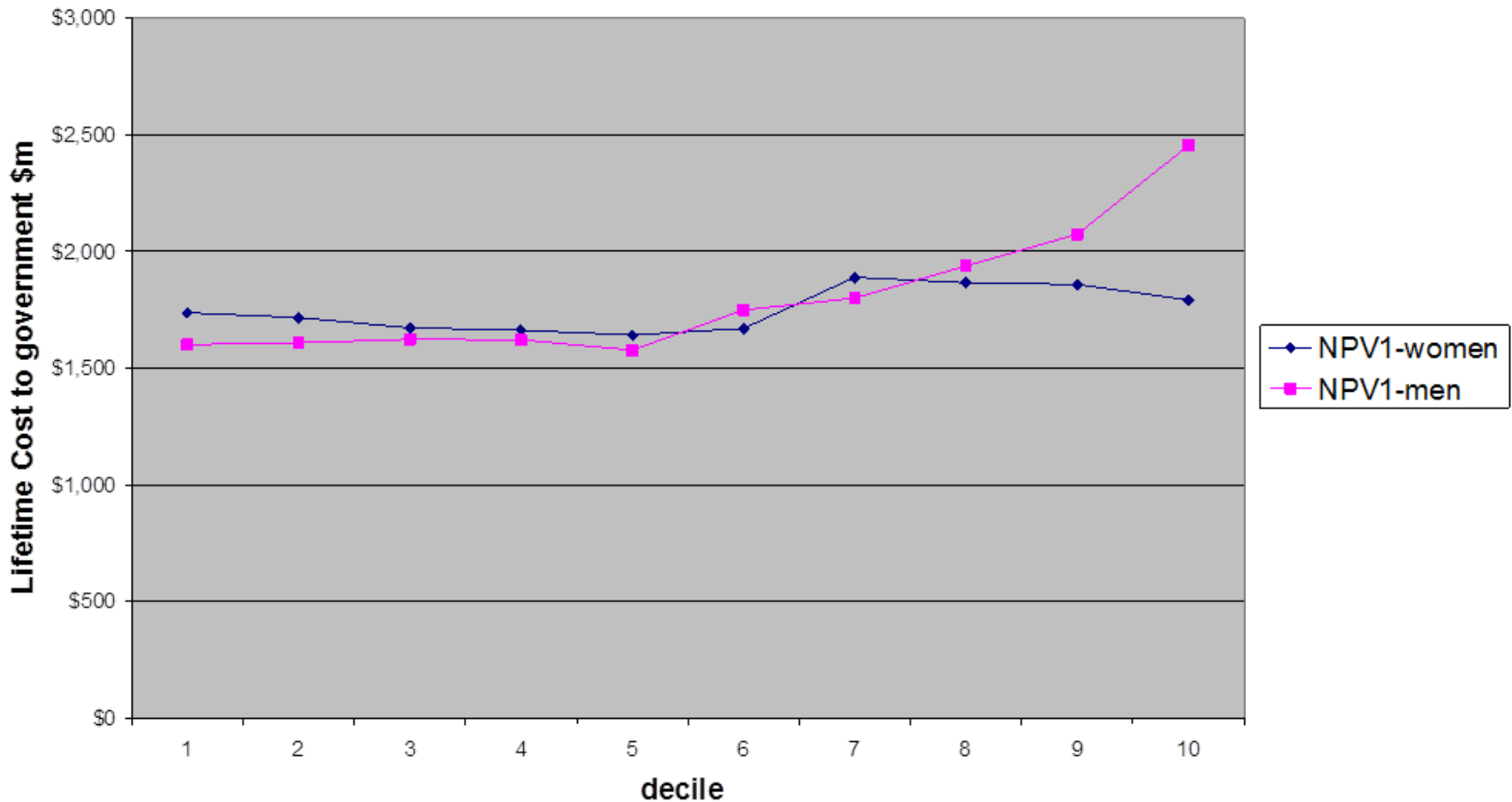


# Government Support over the Lifecycle

**Net present value of superannuation tax concessions and age pension pay for people in a cohort at different income levels**

# Rothman 2009, RIMGROUP all people born in 1960

Base Case - Cost to Government of 1960 birth cohort:  
Women relative to men

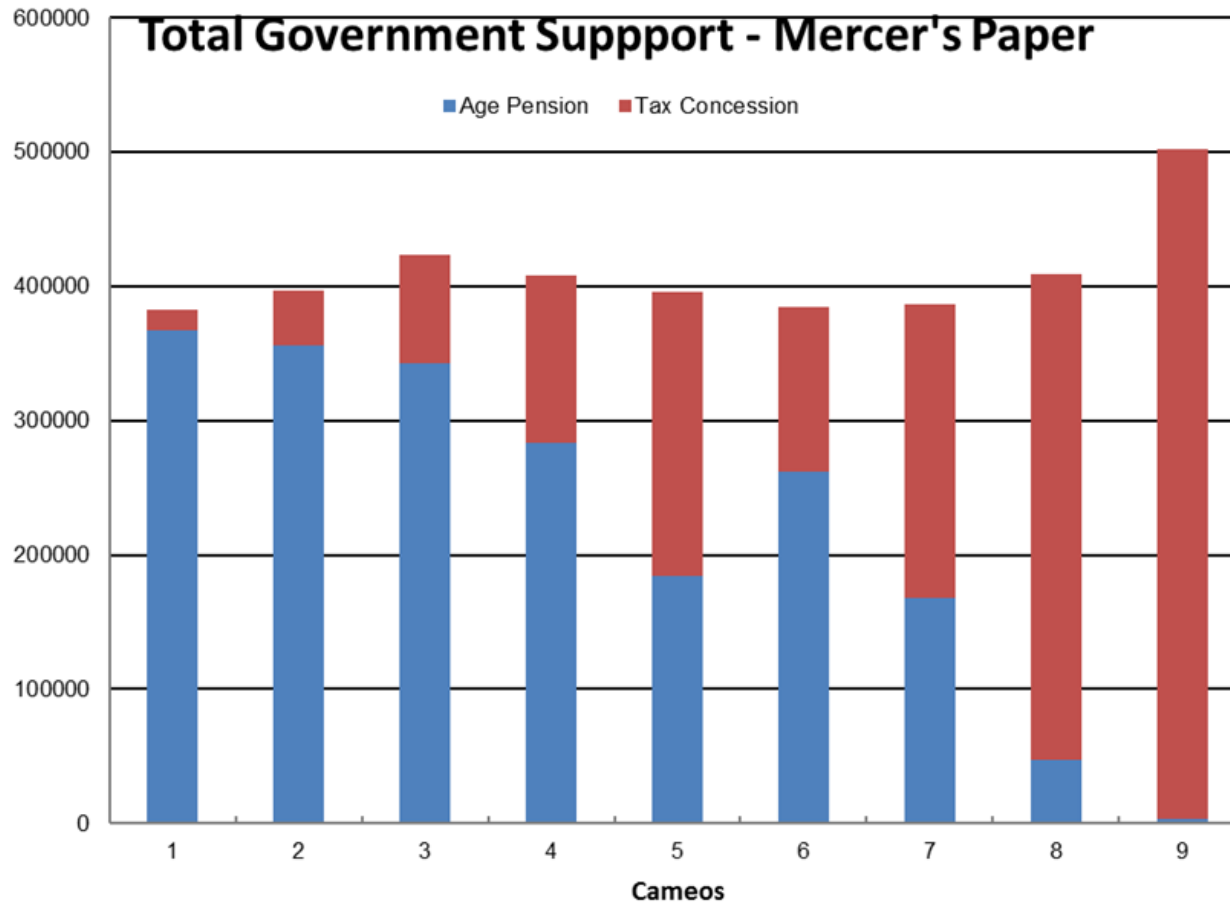




# Rothman 2009 – Method & Issues

- Uses RIMGROUP, increment & decrement model for career earning deciles, gender and birthyear cohorts
- Uses ABS income and housing survey for career income deciles rather than tax data
- Averaging within the top decile hides significant differences for the top 5% and 1%
- Has married couples and their age pension – unlike cameos of individuals

# Mercer, 2012



Knox Cameos	1	2	3	4	5	6	7	8	9
Initial Salary	34000	34000	45000	45000	45000	68000	68000	68000	68000
Final Salary wage deflated	34000	34000	45000	94589	196082	68000	142935	296302	277983

# Mercer 2012 – Method & Issues

- Cameos with made up career progressions

Lowers values of tax concessions by:

- Using flat 12% contributions, not salary sacrifice for high income earners
- Calculating earnings tax concession as HALF the difference between the MTR and effective fund taxation rate
- No tax concessions in earnings phase of allocated pension
- Uses the low contribution cap of \$25,000 indexed for all cases

Raises value of age pension by:

- No non-superannuation assets in retirement
- Indexing age pension means test thresholds by wages (4%) not CPI (2.5%)
- Taking a minimum drawdown from the allocated pension
- Discounting FV by 4% rather than a more typical government bond rate of say 5%

# Treasury 2012 Cameo Projections of Concessions

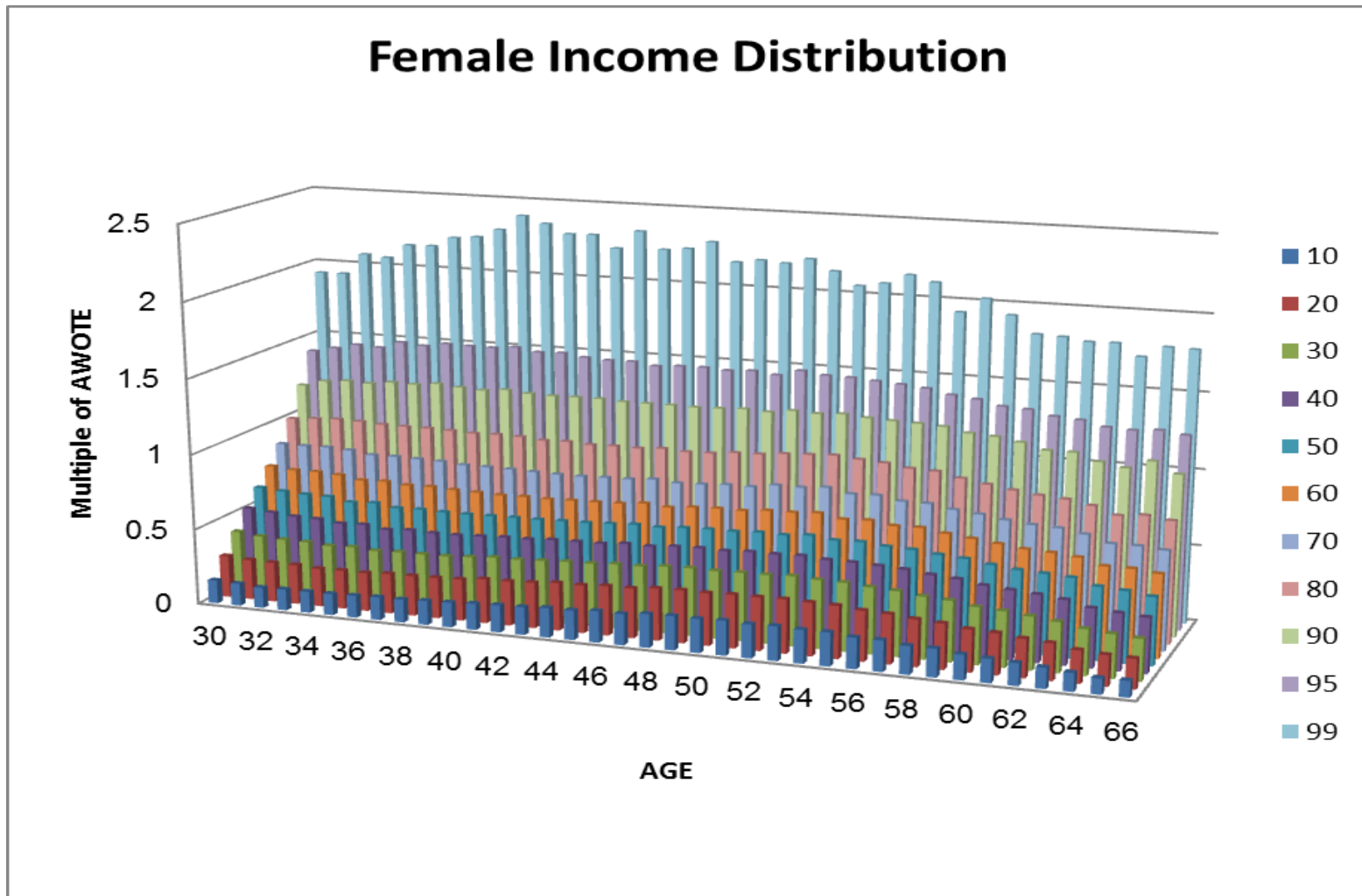
- Based on personal tax and member contribution statement data from the 2009-10 ATO sample tax files and the ABS Survey of Income and Housing 2009-10.
- To get representative cameos (including extra coverage of higher income earners), salary and concessional superannuation contribution data are extracted from the 2009-10 ATO sample tax file at the 10<sup>th</sup>, 20<sup>th</sup>, 30<sup>th</sup>, ... , 90<sup>th</sup>, 95<sup>th</sup> and 99<sup>th</sup> percentile of the salary and wage income distribution at ages between 30 and 66, separately for males and females.
- Superannuation contributions are capped at the concessional contributions cap applying from 2014-15. Non-concessional contributions are not included and this omission may lower earnings concessions and it could increase age pensions.
- Includes SG rise to 12% and LISC and contribution caps, and also includes:
- Voluntary concessional contributions varying by age gender and income; and
- Allowance for savings for retirement outside superannuation

# Salary Income in 2012-13

<b>Percentile</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	
<b>Female</b>	9,068	17,216	25,410	33,746	41,776	
<b>Male</b>	22,592	37,828	47,562	55,942	64,273	
<b>Percentile</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>	<b>95</b>	<b>99</b>
<b>Female</b>	50,086	59,750	71,537	89,228	106,345	151,861
<b>Male</b>	73,122	83,585	97,220	121,551	145,130	199,836

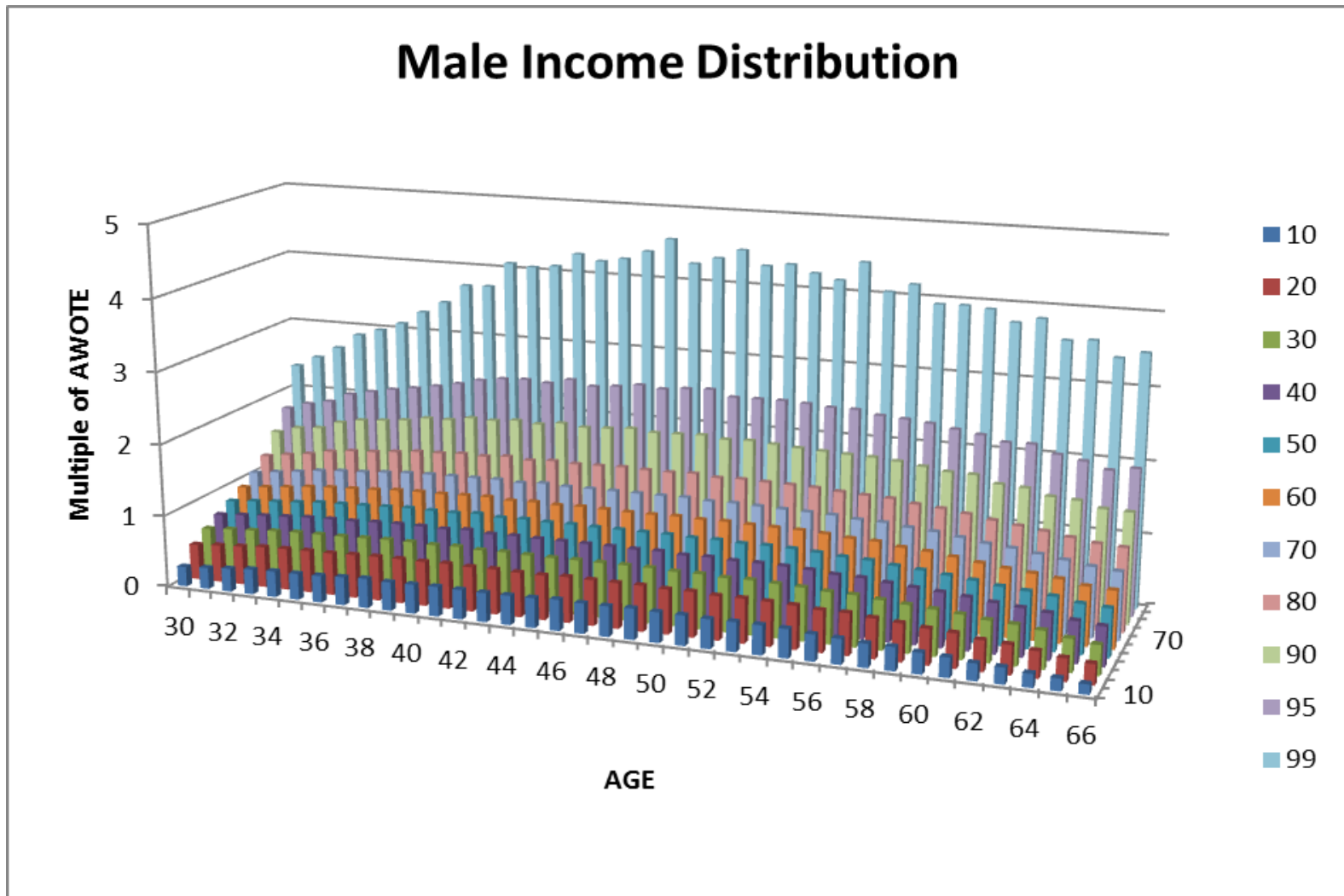
# Female percentile income distribution by age, 2009-10

[Longitudinal variation would improve]



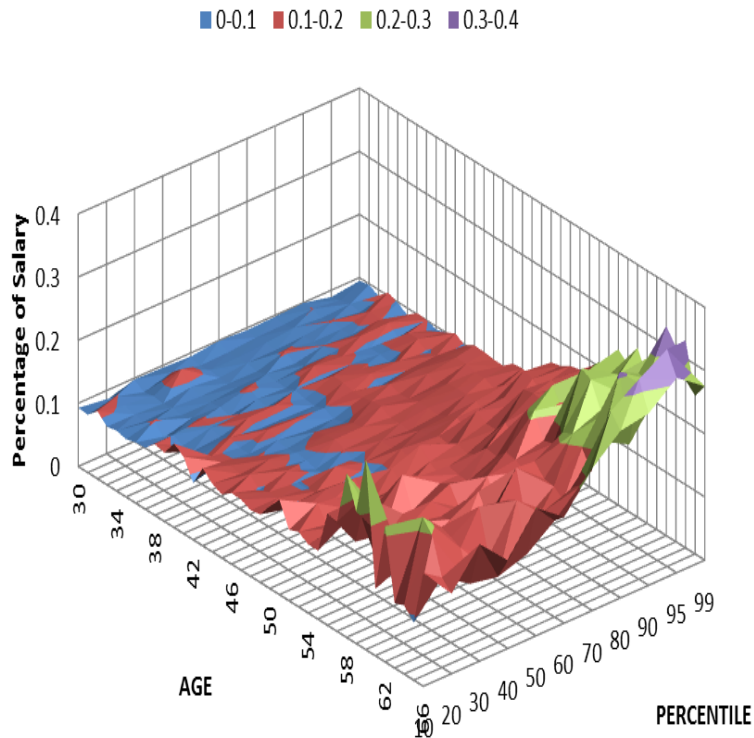
# Male percentile income distribution by age, 2009-10

[Longitudinal variation would improve]

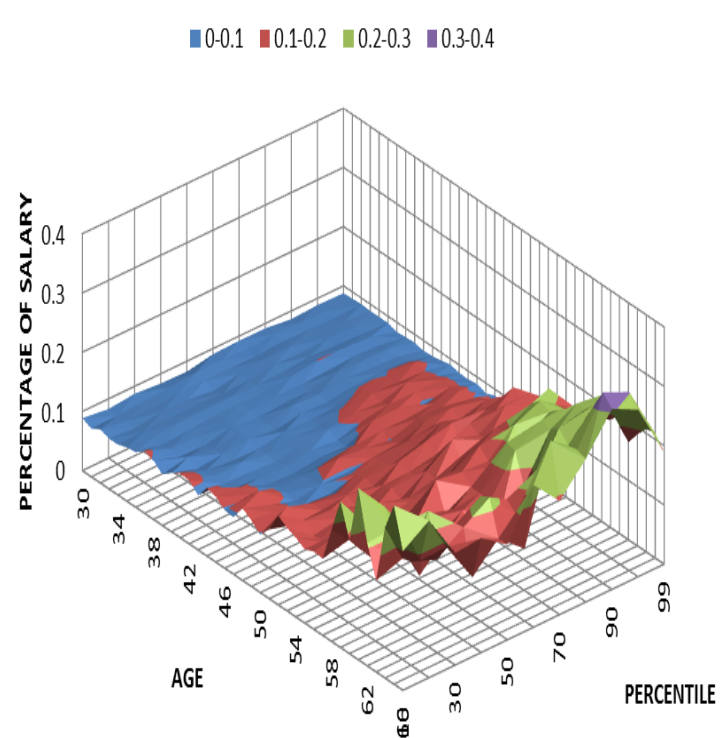


# Average top decile deductible contributions can exceed 30% of remuneration in 2009-10

## Female Contribution Rates



## Male Contribution Rates





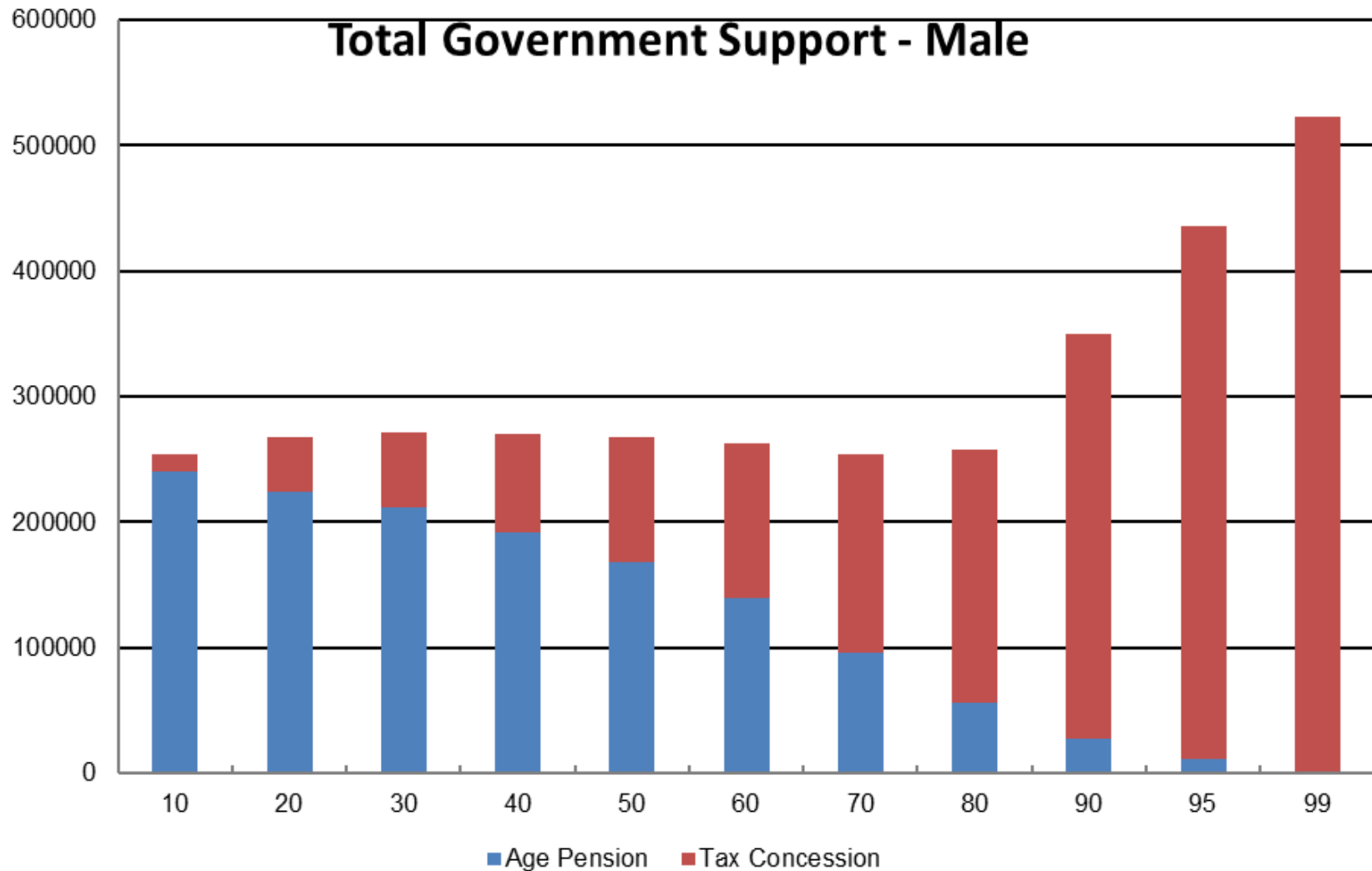
# Non-Super Assets as Proportions of Total Financial Assets, 55-60 year olds, ABS SIHC 2009-10

<b>Percentile</b>	<b>Total to Super Ratio</b>	<b>Non-super assets as % of total</b>
<b>10</b>	<b>1.1664</b>	<b>14.26%</b>
<b>20</b>	<b>1.2182</b>	<b>17.91%</b>
<b>30</b>	<b>1.2700</b>	<b>21.26%</b>
<b>40</b>	<b>1.3219</b>	<b>24.35%</b>
<b>50</b>	<b>1.3737</b>	<b>27.20%</b>
<b>60</b>	<b>1.4255</b>	<b>29.85%</b>
<b>70</b>	<b>1.4787</b>	<b>32.37%</b>
<b>80</b>	<b>1.6857</b>	<b>40.68%</b>
<b>90</b>	<b>2.1532</b>	<b>53.56%</b>
<b>95</b>	<b>2.8827</b>	<b>65.31%</b>
<b>99</b>	<b>4.6506</b>	<b>78.50%</b>

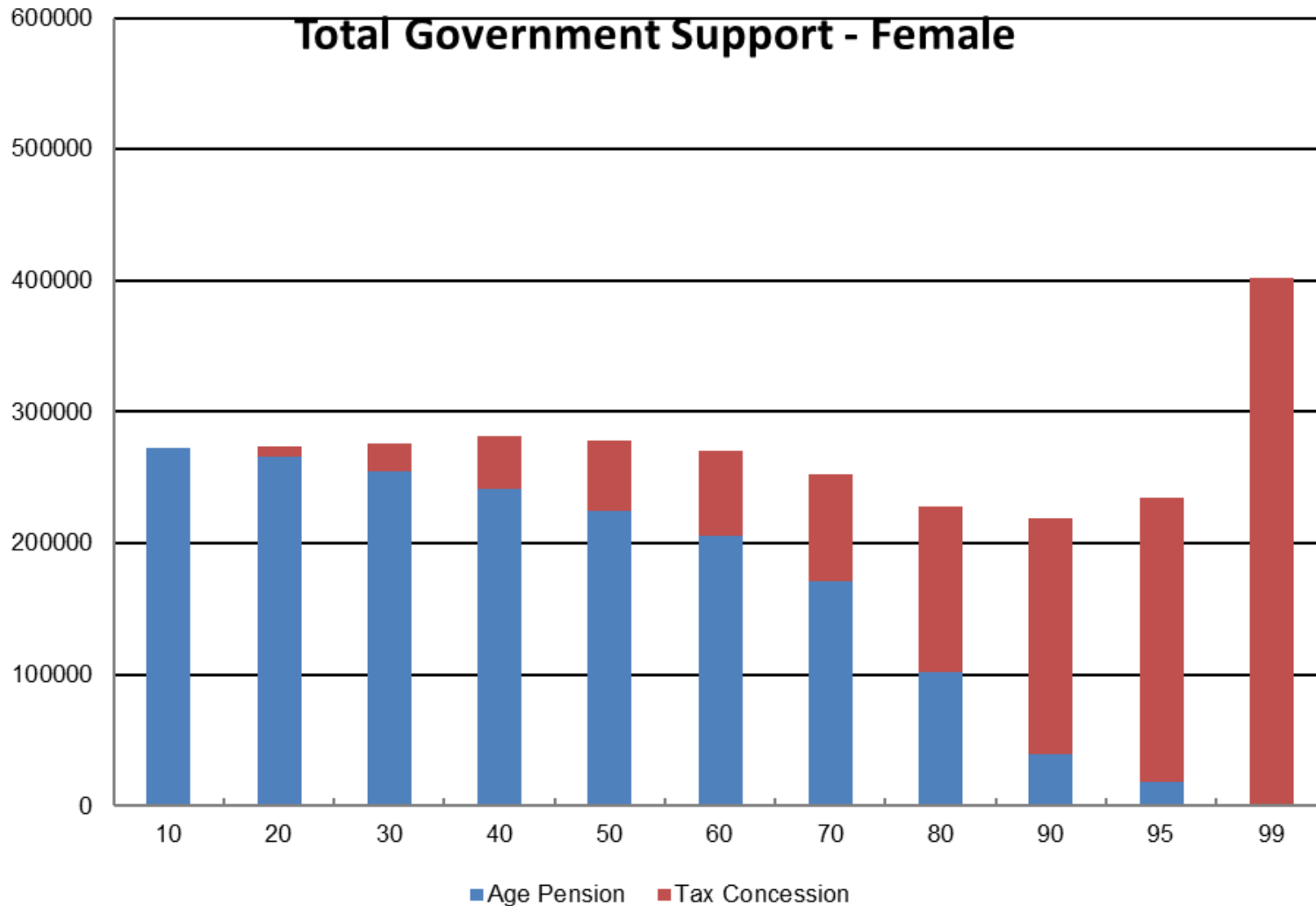
# Projection Assumptions

- Starting year: 2010
- Age at commencement: 30
- Retirement age: 67
- Male life expectancy: 88 years
- Female life expectancy: 90 years
- Investment Return (after fees but before tax) : 6.5% p.a.
- Inflation: 2.5% p.a.
- AWE inflation: 4.14% p.a.
- Long term bond rate (used in discounting): 5% p.a.
- Wage growth is adjusted through the period in which the SG rate increases.
- The top income group, i.e. the 99<sup>th</sup> percentile, is assumed to withdraw only the interest earnings from fixed income investment, whereas the other income groups withdraw at a rate that reduces the balance to 0 in the year they die.
- For all income groups all accumulated superannuation is invested in allocated pensions with withdrawals slightly above the legislated minimum rates.
- Concessions on fund earnings tax in retirement phase are not included in the model.

# RIMHYPO projection, cohorts 30 in 2010



# RIMHYPO projection, cohorts 30 in 2010



# QUESTIONS

