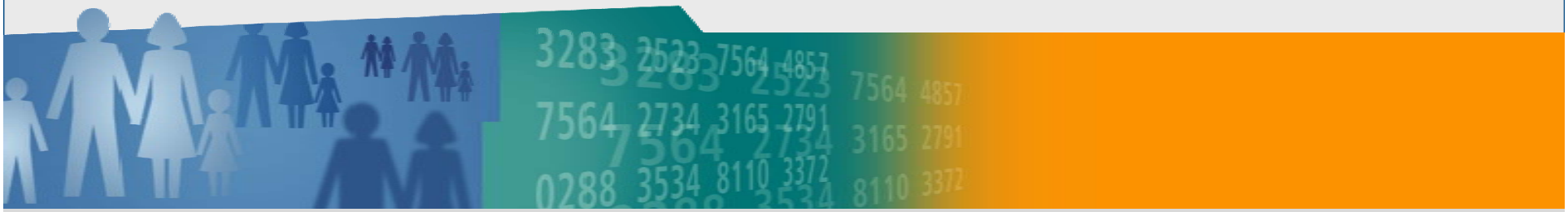


The gender wage gap in Australia: What it costs us, why it's still here and will it ever go?

Presentation to Our Work, Our Lives – Women and Industrial Relations Conference, Darwin, 12-13 August 2010

Rebecca Cassells

Australian women have come far

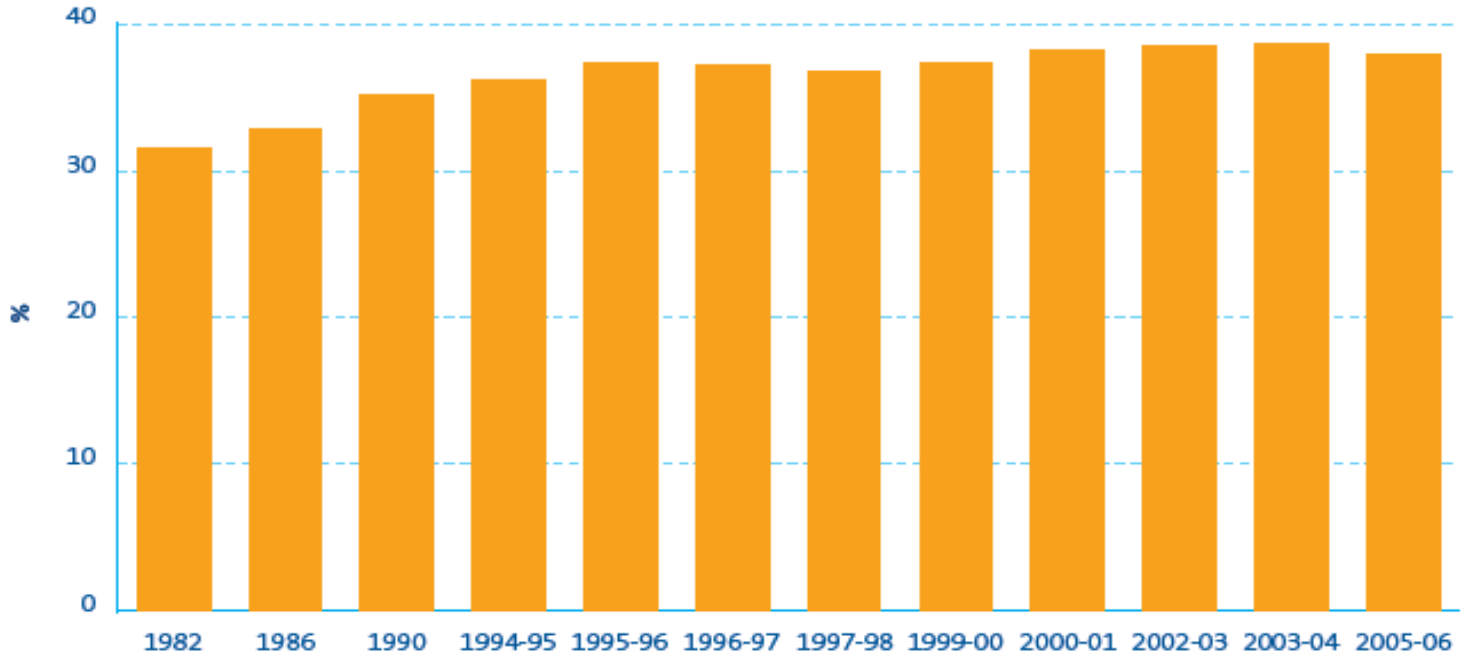
- More educated than ever
- Higher labour force participation
- More employed in higher occupations
- Fought for and achieved equality in many areas

But……Still divisions

- Income
- Wealth and superannuation
- Unpaid work

Women's income as a proportion of total income

Figure 20 - Women's Income as a proportion of total Income



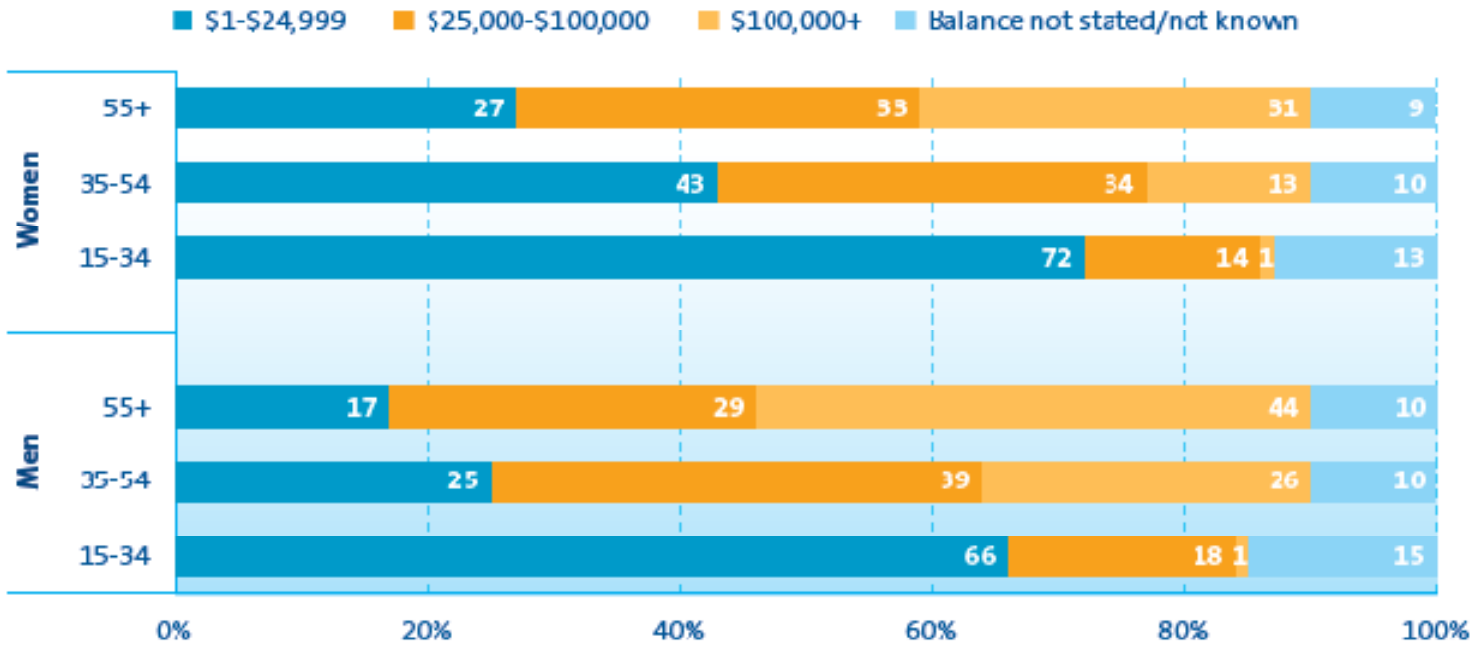
Note: Gross personal income comprises income from all sources (government pensions and allowances, earnings, investment income, and private cash transfers) attributed to individuals before income tax or the Medicare levy are deducted for persons aged 18-64 years.

Source: *Australian Social Trends 2008, ABS Cat No. 4102.0, p1.*

Life time earnings - $1million difference

- Men - $2.4 million
- Women - $1.5 million
- Greater if you have children
- And the more educated you are

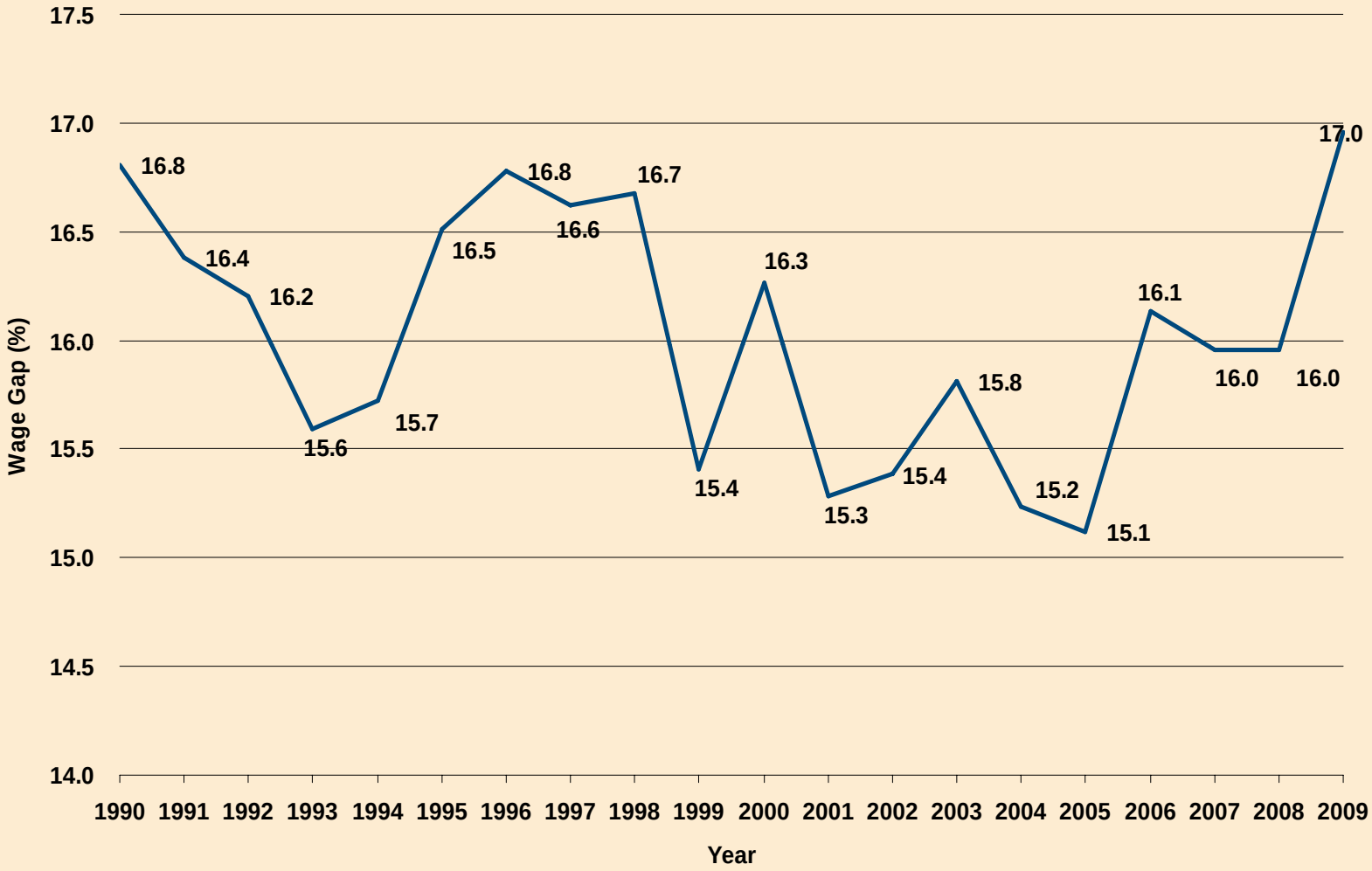
Figure 23 - Total superannuation balances by age group and gender, 2007



Notes: Population is all persons with superannuation in the accumulation phase. See Technical Notes for a definition of accumulation phase.

Source: *ABS Survey of Employment Arrangements, Retirement and Superannuation Data Cube, Cat No. 6361.0.55.002.*

Gender wage gap over time



Note: The gender wage gap is calculated for full time, ordinary time adult employees, using original data.

The reference period for data used in this figure is February for each year.

Source: ABS Average Weekly Earnings, Data cube, 2009, Cat No. 6302.0

How can this be?

- Recent research by NATSEM, funded by the Office for Women (FaHCSIA)…..
- Determinants of the wage gap
- The potential implications of the wage gap for the Australian economy

Acknowledgements

Fellow authors - Yogi Vidyattama, Riyana Miranti, Justine McNamara

This presentation uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this presentation, however, are those of the authors and should not be attributed to either FaHCSIA or the MIAESR.

Finding the determinants

Methodology

Finding the determinants:

- How to decompose the wage gap - Explained v's Unexplained.
- What is the true non-discriminatory wage structure?
- Olsen-Walby technique (Olsen and Walby 2004, p.69) which focuses on 'hypothetically moving the market in ways that equalise men's and women's experiences'

Sample: wage earners (full and part-time) from HILDA 2007. We excluded people who were self-employed people, people aged below 21 years, and those aged 65 years and above. We also excluded people with unusually low or high hourly wages.

Selected characteristics

	Mean	Mean	Difference
	Males	Females	
Time in paid work (years)	19.13	17.09	2.04
1-34 hours per week (%)	0.1	0.41	-0.31
35-40 hours per week (%)	0.4	0.38	0.02
41-49 hours per week (%)	0.21	0.11	0.1
50+ hours per week (%)	0.28	0.1	0.18
Bachelor qualification (%)	0.27	0.33	-0.06
Vocational qualification (%)	0.39	0.29	0.1
Year 12 or lower qualification (%)	0.34	0.38	-0.04
Occupational segregation (average level)	6.11	4.35	1.76
Industry segregation (average level)	6.01	4.39	1.62
Tenure in current occupation (years)	9.91	8.7	1.21
Tenure with current employer (years)	7.25	6.41	0.84
Firm size: Less than 20 employed (%)	0.37	0.34	0.03
Firm size: 20-100 employed (%)	0.28	0.33	-0.05
Firm size: 100-500 employed (%)	0.21	0.18	0.03
Firm size: 500+ employed (%)	0.15	0.14	0.01

Source: Authors' calculations from HILDA, 2007, Wave 7 unit record data

Also controlled for:

- Number and ages of children
- Marital status
- Presence of a long-term health condition
- Work schedule
- Unionisation
- Public/private sector
- Urban/rural residence

Key determinants of the gender wage gap

- Being a woman (60%)
- Industry segregation (predominance of men working with men and women with women) (25%)
- Labour force history (time in paid work, tenure in current occupation and with current employer) (7%)
- Vocational qualification (the lower proportion of women with a vocational qualification) (5%)
- Firm size (higher proportion of women working in smaller firms) (3%)

Simulated effect of moving Australian women to average situation of Australian men

	Simulated change as a % of the pay gap	Cents/hour equivalent	$/35 hour week	Per year
	%	$	$	$
Labour force history	7	0.22	8	405
Vocational qualification	5	0.15	5	273
Industry segregation	25	0.79	28	1431
Firm size	3	0.11	4	194
Female	60	1.86	65	3394
	100	3.13	110	5697

Note: The proportion of the overall wage gap is measured as the simulated change in the characteristics of women to that of the average situation of men multiplied by the reward or coefficient for that particular characteristic. Figures may not add to total due to rounding. The total gap has been derived using selected variables only. The wage gap of $3.13 per hour has been derived from the difference between the average wage of men and women for all wage earners. **Source:** Authors' calculations from HILDA, Wave 7 unit record data

Implications of findings about determinants

- Large effect of simply being a woman may be due to discrimination or to other differences between men and women that are **not** already controlled for (eg motivation, self-esteem, importance of work/money/family)
- Estimation of effects is **simulated.** In real world, outcomes could be different - eg changes to industrial segregation might be accompanied by changes in the value put on some types of work

The wage gap and the economy

Methodology

- the impact of gender inequality on macroeconomic outcomes has more frequently focused on gender equality in education
  - (e.g. Barro and Lee, 1994; Barro and Sala-i-Martin, 1995; Hill and King, 1995; Klasen, 1999, 2002; Dollar and Gatti, 1999; Lagerlof, 2003; Dowrick, 2003)
- several studies have begun to focus on the potential impacts of the gender wage gap
  - (Seguino, 2000; Walby and Olsen, 2002; Cavalcanti and Tavares, 2007; Caro, 2008)

Methodology

Estimating the cost to the economy:

- Time series data
  - Main concern: relatively short data length
- Need to investigate direct and indirect channels

Data sources: Various time series data from ABS 1985-2008

Method: growth regression with GDP/capita main variable

Note: does not take account of women's unpaid contributions to the economy

The wage gap and the economy

Variables in the model:

GDP/capita (outcome)

Gender wage gap

Hours of work

Investment

Labour participation

Fertility rate

Human capital (data limitations)

The wage gap and the economy

	σ	β	**Impact Coefficient**
Wage gap → economic growth	-0.25		-0.250
Wage gap→investment→economic growth	-0.261	0.081**	-0.021
Wage gap→fertility→economic growth	0.993	-0.182	-0.181
Wage gap→average hours of work→economic growth	**-1.432****	0.222***	-0.318
Wage gap→labour participation→economic growth	0.378	0.695***	0.263
Total effects			**-0.507**

Note: ** significant at a confidence level of 95 per cent. Economic growth refers to economic growth of GDP per capita. The results should be read as, for example, a one percentage point increase in the gender wage gap reduces economic growth of GDP per capita by -0.507 per cent. **Source:** Authors' calculations

Simulated cost of the gender wage gap to the Australian economy

	Current situation (1)	Increase in the wage gap from 17 to 18 per cent (2)	Cost to the economy (1) – (2)	Elimination of wage gap from 17 per cent to zero (3)	Gain to the economy (1) – (3)
Gender wage gap	17%	18%	Na	0	Na
GDP per capita	$51,114	$50,854	$260	$55,534	$4,420
GDP (millions)	$1,084,146	$1,078,649	$5,497	$1,177,595	$93,449
Population (millions)	21.21	21.21	Na	21.21	Na

Source: Authors' calculations

Words of caution

- Results are **simulated estimates**
- Possible that more data or different methodology would produce different results AND that real world outcomes might be different than the simulated outcomes
- **However** both micro (determinants) and macro (cost to economy) model rigorously tested and robust to various assumptions

Complex implications

For example:

- Macro results show that increasing hours of work is significant channel through which a lower gender wage gap would affect economic growth **but** working more hours in itself complex – child care availability and affordability, gendered division of household labour, work-life balance

- What type of change? Eg in relation to industry segregation, is the answer to reduce segregation or to raise wages in female-dominated industries?

- More research questions to answer (eg further examination of industries, income levels, contribution of part-time work)

Will it ever go?

Gender wage gap for Gen Y

- High hopes for Gen Y women
- Highly qualified and employed
- Confident and proactive attitudes
- Wage gap should if anything be reversed

Aim

- Compare the same group of Gen Y's over time.
- (Fortin 2008; Finnie and Wannell 2004)

- What happens to the wage gap?

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Sample

- Broadly Gen Y's
- Aged 18-27 in 2002
- Aged 21-30 in 2005
- Aged 24-33 in 2008
- Beginning of careers, with a clear career progression.
- Excludes those studying full-time in any period, those with very low wage rate.

Decomposition Methodology

- Oaxaca-Blinder-Ransom methodology (initially)
- Divides into the explained and unexplained components
- Chosen a pooled wage for the non-discriminatory wage
- Variables – human capital, job characteristics

Decomposition

		2002	2005	2008
Unadjusted Wage Gap	(log hourly wages)	-0.05	0.04	0.04
Explained Component	$(Xm-Xf)\beta^*$	-0.06	0.00	-0.03
Unexplained Component	$Xm(\beta m-\beta^*)+(\beta^*-\beta f)Xf$	0.01	0.05	0.07

Summary and Implications

- Results are preliminary – more testing to come.
- Wage gap has reversed in 2002, reverts back in 2005 & 2008. Explained v's unexplained.
- Is this a cohort or age effect?
- Will it continue to widen?

Overall presentation summary

- Wage gap is persistent
- Doesn’t look like it is going anywhere anytime soon
- Main key determinant is being a woman
- Potential substantive costs to the economy

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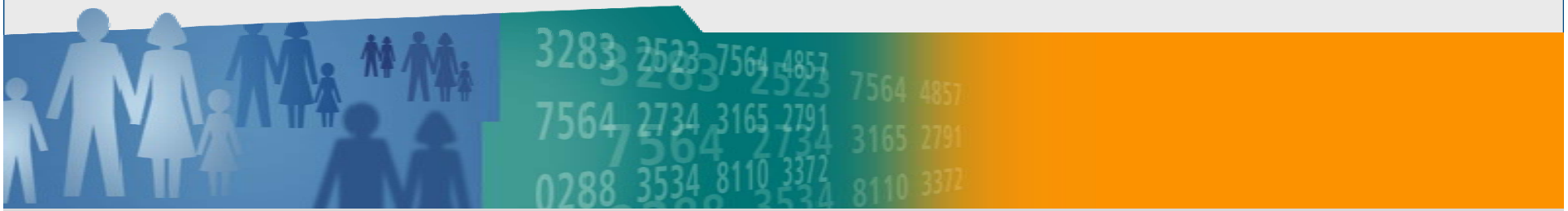

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