



THE AUSTRALIAN NATIONAL UNIVERSITY

# The impact of economic change on the health sector: Australia

International Medical Workforce Collaborative Conference, New York 2-5 May 2010

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# Unemployment and GP Demand

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SYDNEY MEDICAL SCHOOL

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# Australian Story

- Like UK and USA economic shocks tend to have little impact on health workforce and utilisation trends
- Also like UK and USA data is incomplete
- Australian modelling in general practice suggests economic impacts should arise but are probably small and generally overwhelmed by longer term policy trends

# Unemployment and Mortality

Chart 1: Unemployment rates from 1900 – 2003<sup>[1]</sup>

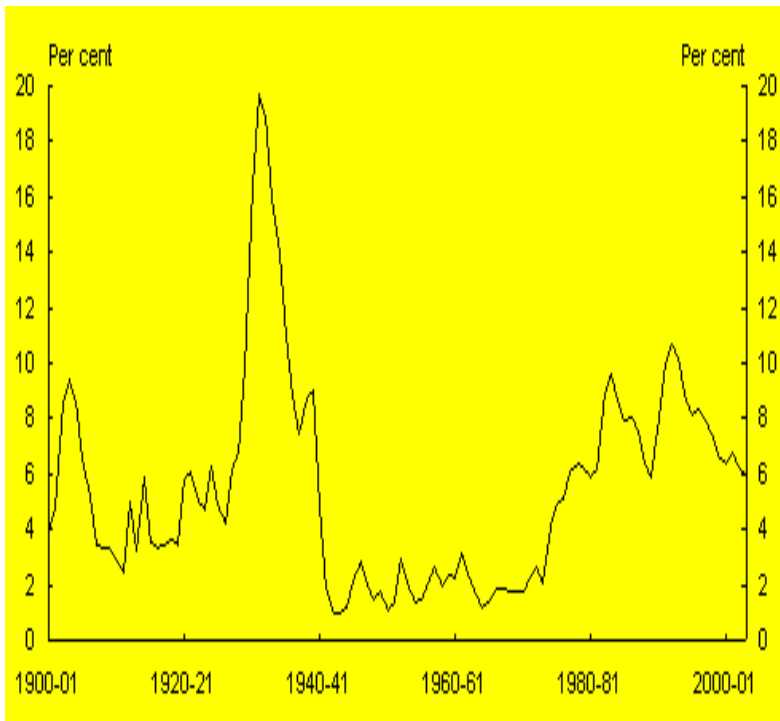
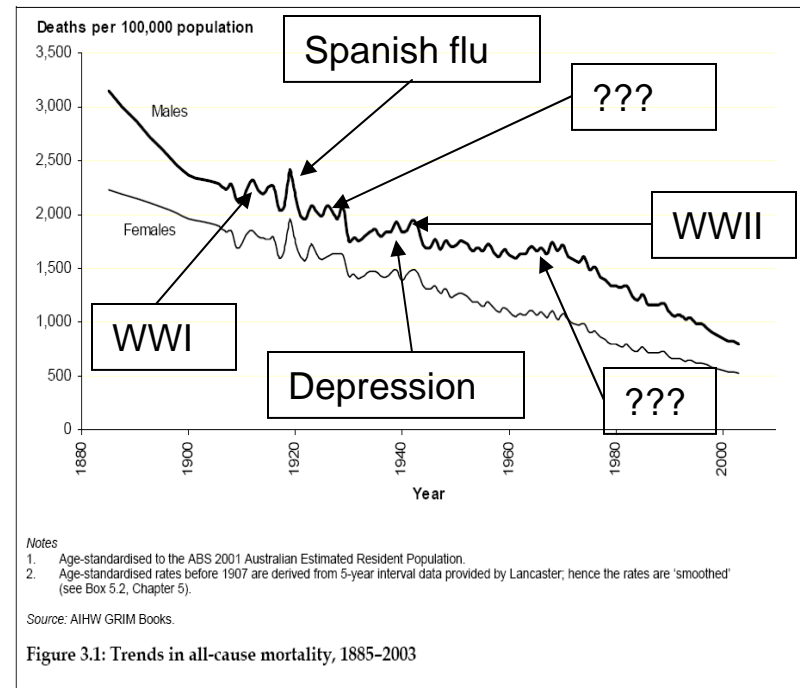
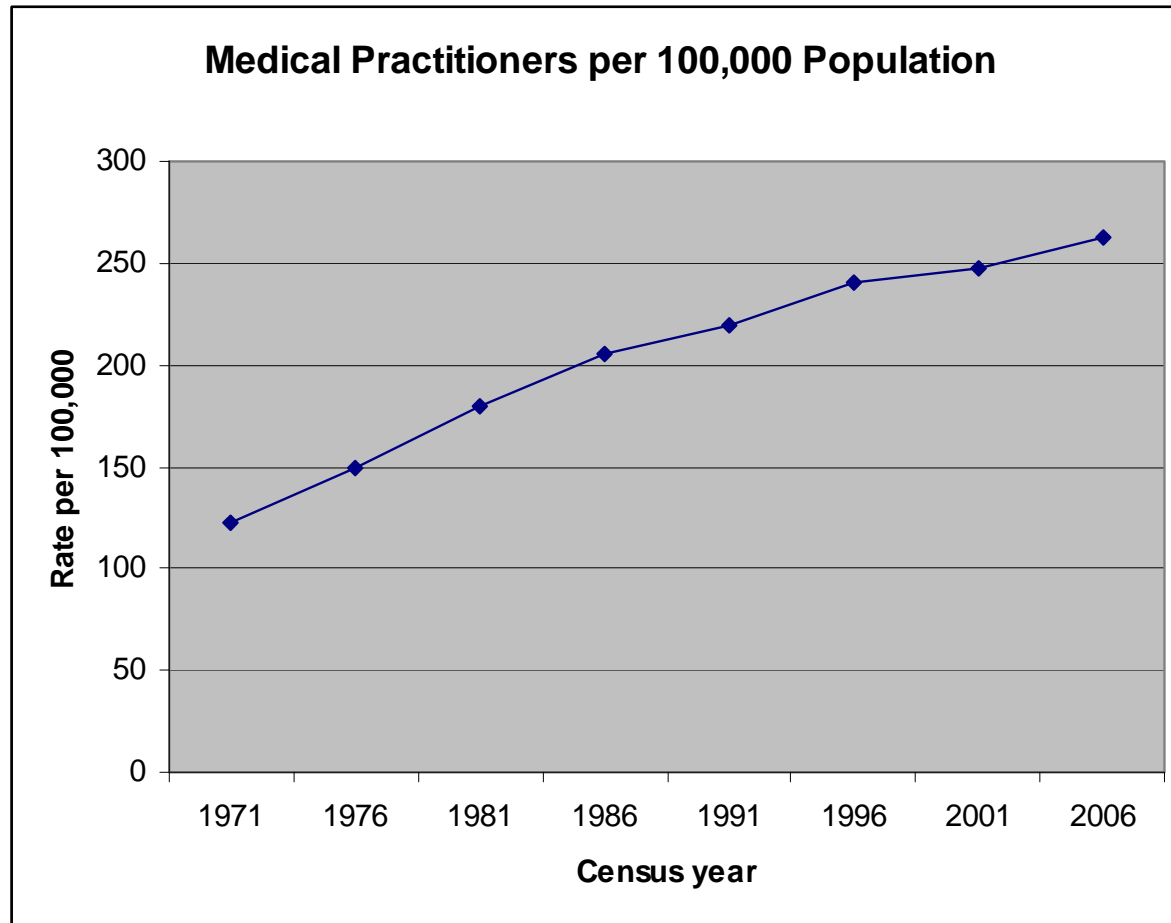


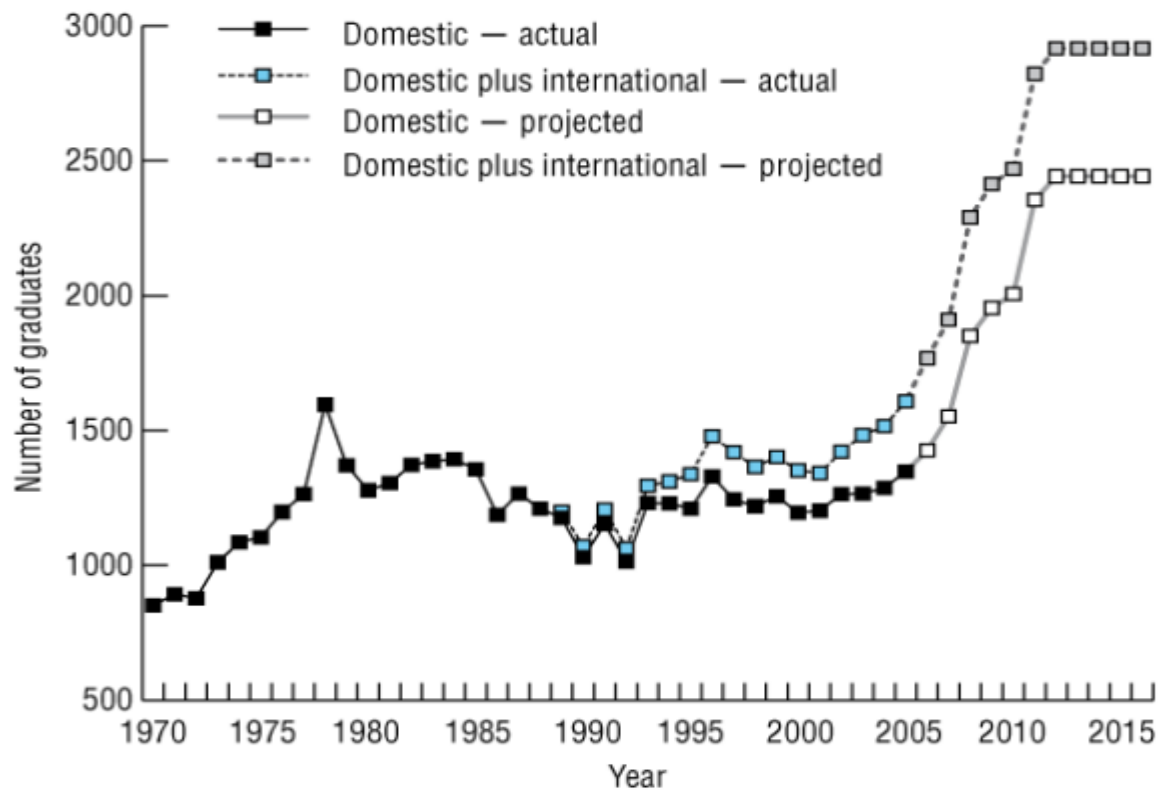
Chart 2: Death rates from 1885-2003



# Chart 3 : Doctors per 100,000 population

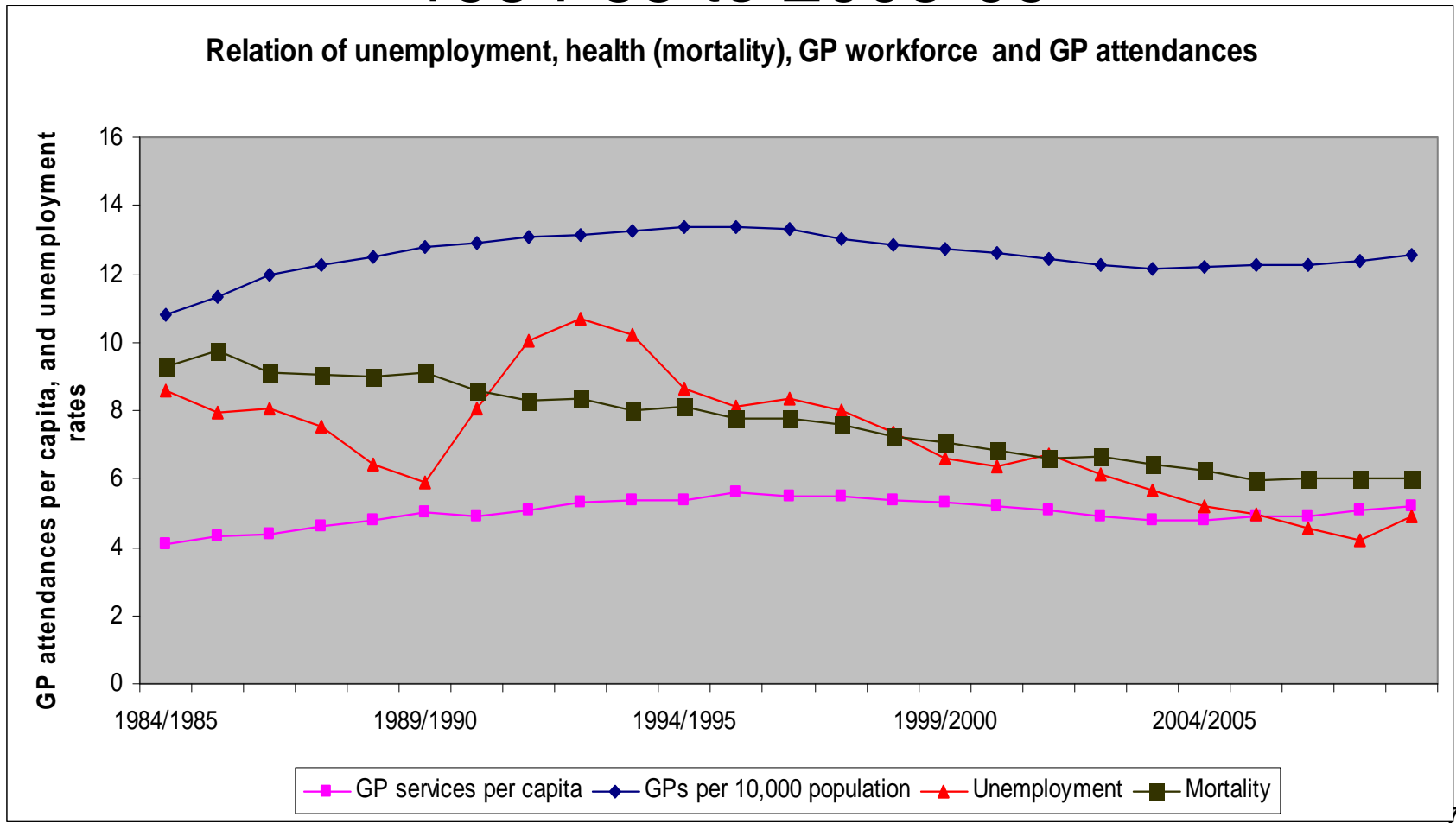


# Chart 4: Australian university medical school graduates: actual and projected, 1970-2016

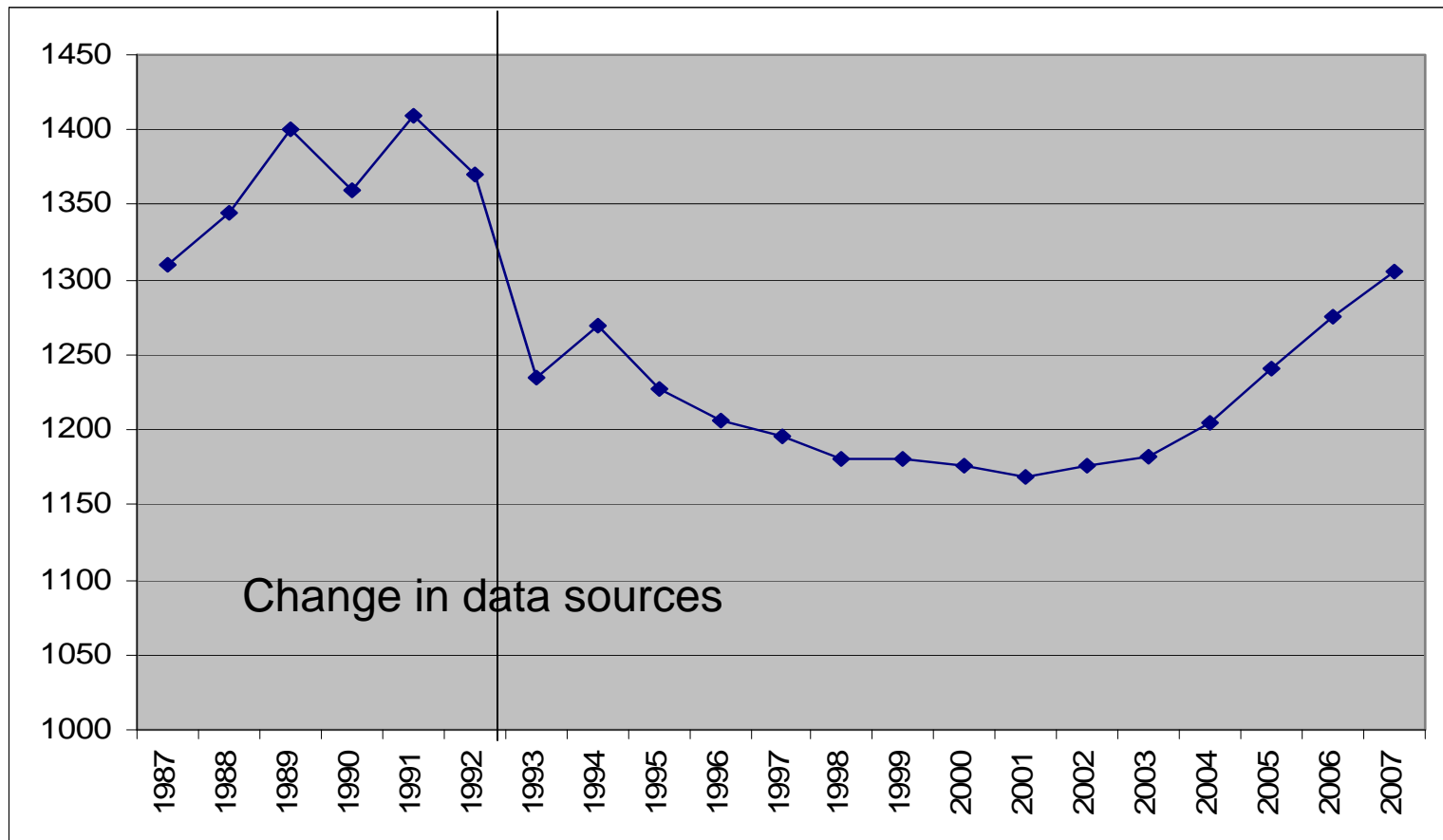


Source: Catherine M Joyce et al, MJA 2007; 186 (6): 309-312

# Chart 5: Unemployment, health, GP workforce and GP attendances, 1984-85 to 2008-09

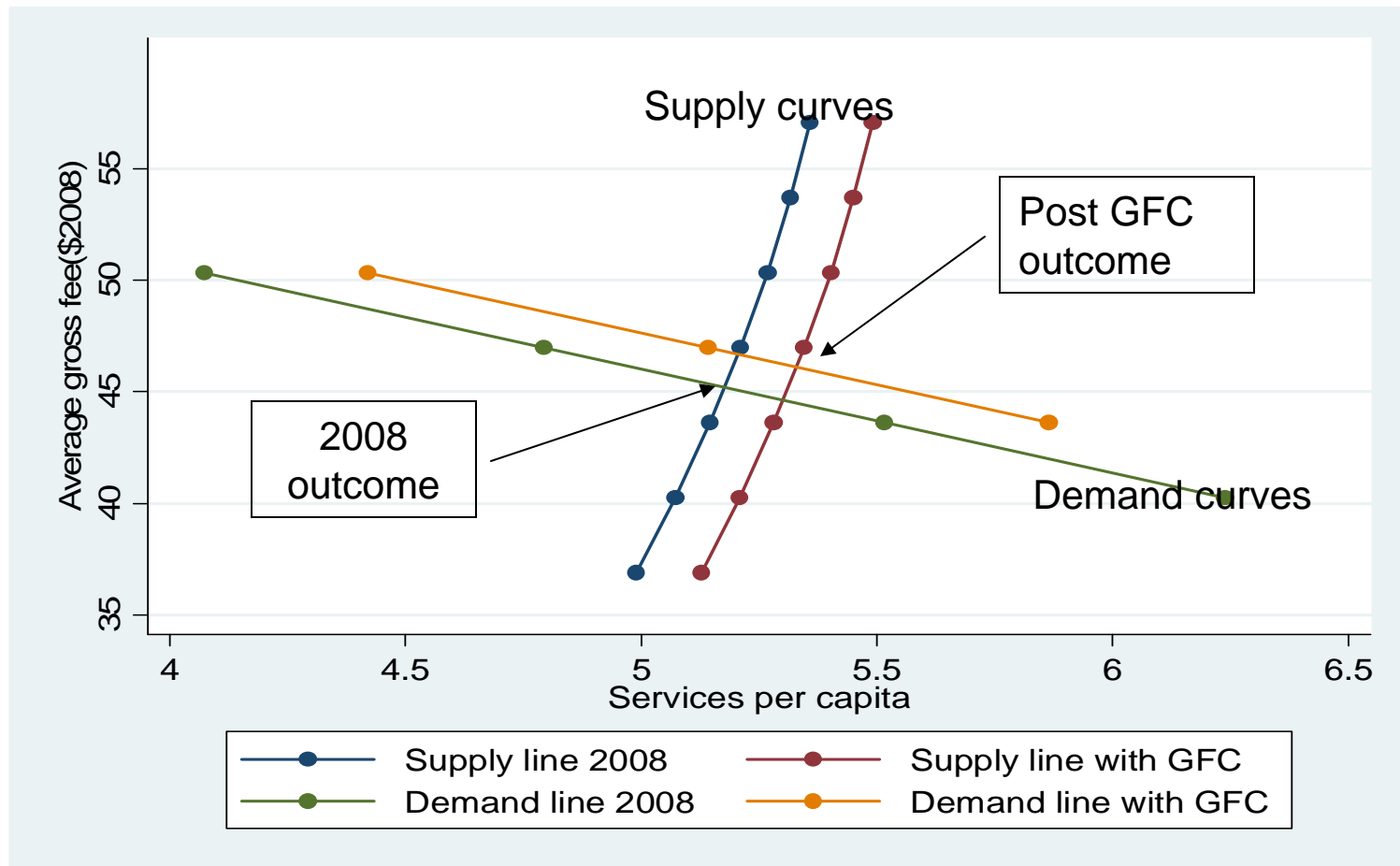


# Charts 6: Nursing Workers per 100 000 population, Australia, 1987-2001





# Chart 7: Supply and demand curves: 2008 and with possible GFC impact



# Table 1: Impact of changes caused by the GFC on the GP market

*Assume the impact on trend in services per GP is to halve the effect  
Assume 2 per cent of GPs remain in the workforce rather than retiring*

	Estimated level of unemployment (Was 4.2% in 2008)			
	4.20%	5.20%	5.80%	7.50%
<i>Impact on gross fees charged (2008 dollars) per service</i>	(\$0.58)	(\$0.23)	(\$0.03)	\$0.56
<i>Impact on GP services per capita as a % of 2008 levels</i>	2.40%	2.53%	2.61%	2.82%
<i>Impact on average gross fees charged per GP</i>	-1.29%	-0.52%	-0.06%	1.26%

# The Simulation

- Using a microsimulation model of demand for GP services
- Increased the 2005/06 unemployment rate from 5.3% to a hypothetical rate of 6.3%
- 98,225 went from being 'employed' to 'unemployed'

# Results

Annual GP services if unemployment rate increased by 1%, 2005

BASE				
Labour Force Status	No of People	Number of Services	Mean	
Employed	9,468,508	47,970,388	5.07	
Unemployed	531,794	3,476,433	6.54	
<b>TOTAL</b>	<b>10,000,302</b>	<b>51,446,433</b>	<b>5.832</b>	
SIMULATION				
Labour Force Status	No of People	Number of Services	Difference in numbers of services	% difference in numbers of services
Employed	9,370,283	47,470,791	-499,597	-1.1
Unemployed	630,019	4,118,548	642,115	15.6
<b>TOTAL</b>	<b>10,000,302</b>	<b>51,589,339</b>	<b>142,518</b>	<b>0.3%</b>

# Distribution of Health Status

Employment Status	Excellent Health	Good Health	Poor Health
Employed	64%	27%	9%
Unemployed	53%	32%	15%
Not in labour force	47%	27%	27%

# Distribution of Income

Employment Status	Tercile 1	Tercile 2	Tercile 3
Employed	11%	37%	52%
Unemployed	55%	43%	2%
Not in labour force	48%	48%	4%

# Policy Impacts – equity of health

- Disease and ill health not borne evenly across society
- People from low socioeconomic backgrounds have more risk factors for chronic disease and greater prevalence of certain diseases
- Those who are unemployed have higher mortality, illness and disability
- There is a need for more GP services amongst the unemployed as they have poorer health

# Utilisation of Services

- Additionally, the unemployed are less likely to receive preventive care when seeing GPs
  - need is currently not met<sup>1</sup>
- Plus, there is insufficient supply in poorer areas
  - reduced access, unmet need<sup>2</sup>
- <sup>1</sup> Harris E and Harris M F (2009) Reducing the impact of unemployment on health: revisiting the agenda for primary health care. *Medical Journal of Australia*, 191(2), pp. 119-122.
- <sup>2</sup> Schofield D, McRae I and Shrestha R (2008) Equity, poverty and access to GP services in Australia. *International Medical Workforce Collaborative Conference*, Edinburgh, Scotland, 16-20 September.



# Conclusion

Observable effects on utilisation are small

- Hard to identify in long term trends
- Both models show small positive volume effects from increased unemployment
- A mismatch between supply and demand may reduce the observable effect of unemployment

Leads to support for view that

- the GFC may impact on the day to day behaviour, but
- in ways which have a small effect on overall utilisation or workforce, and
- which are likely to impact more significantly in low income areas.