

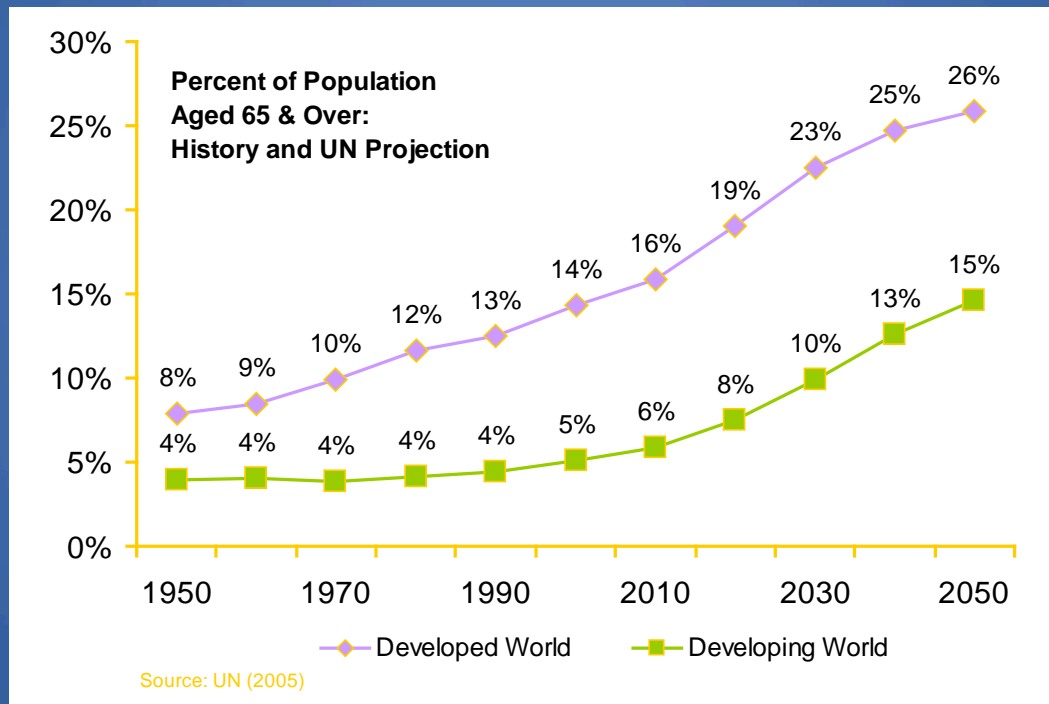
# Adjusting for the Cognitive Effects of Normal Aging in the Work Place

Janet Leathem  
Massey University – Wellington  
New Zealand

# Demographics

- Population of older individuals (60+) rose from 205 million in 1950 to 606 million in 2000 (UN, 2002). Projected to reach the 2 billion mark by 2050.
- New Zealand, 2001 (12% of the population) aged 65 or over (Statistics New Zealand [SNZ], 2009). Projected 25% of population by 2026.

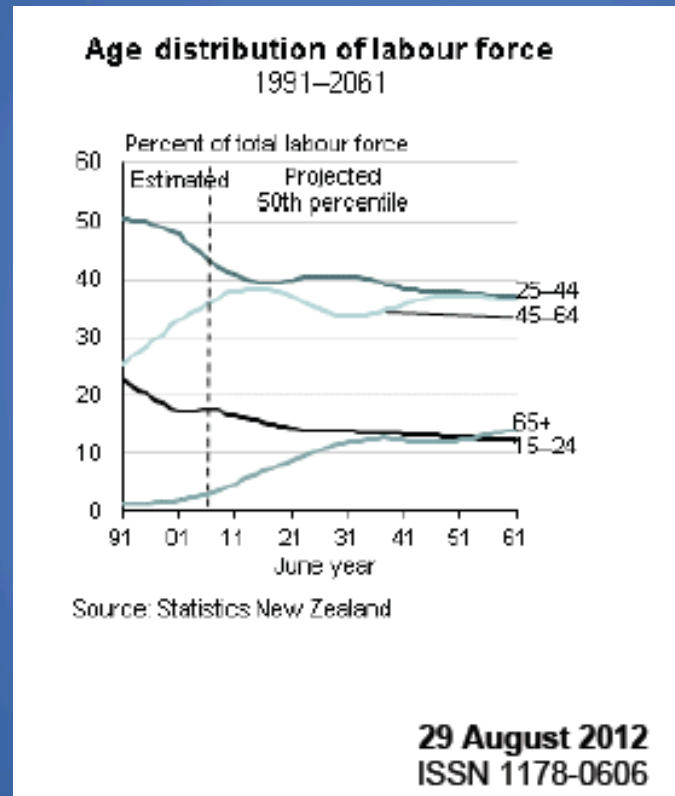
# Demographics



# Demographics: Workforce

- Number of people 65+ in workforce
  - 1991 (1/16)
  - 2012 (1/5)
  - 2020 (1/3)
  - 2036 (9-15% of labour force)
  - 2061 (10-18% of labour force)
- Largest growth between 2011 and 2031

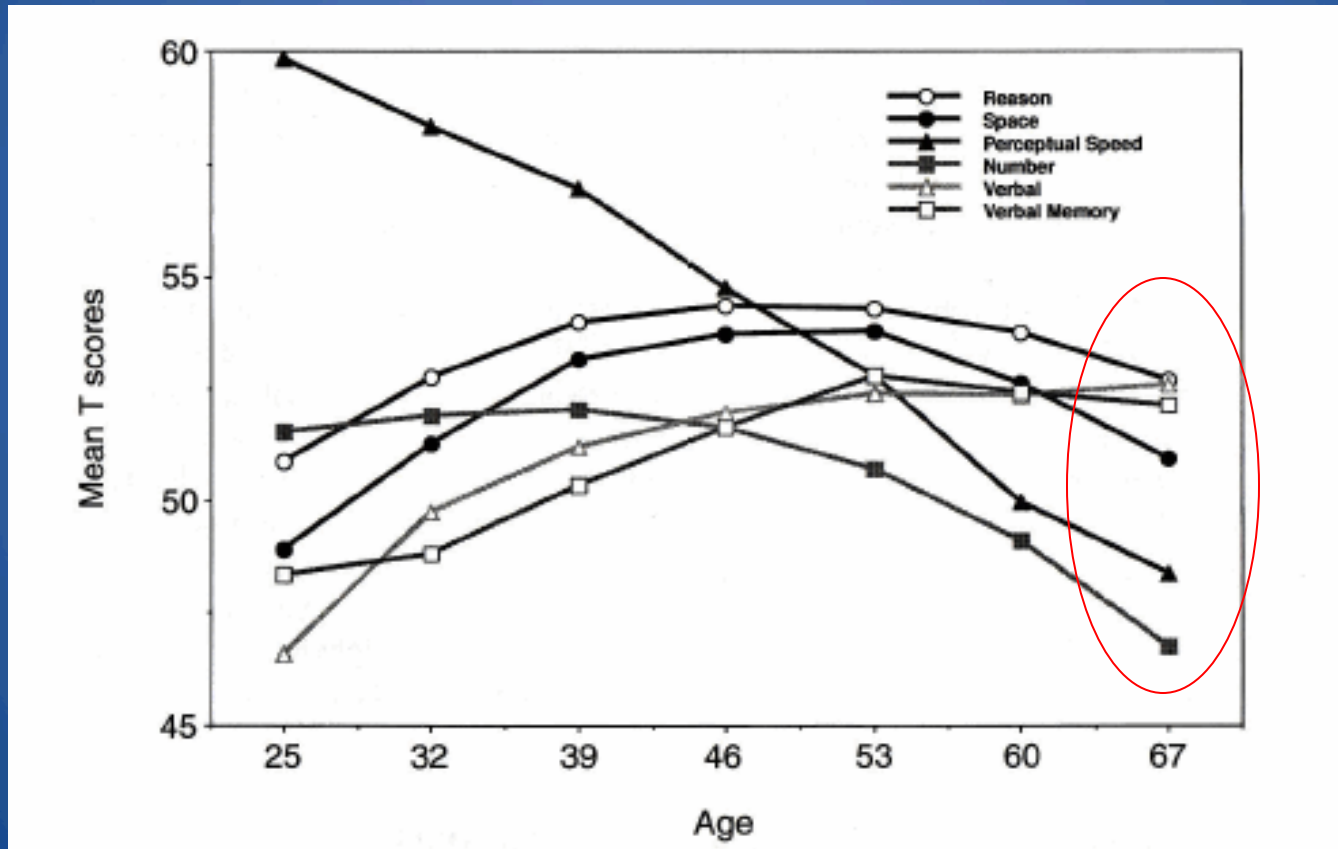
# Demographics: Workforce



# Cognitive Effects of Normal Aging

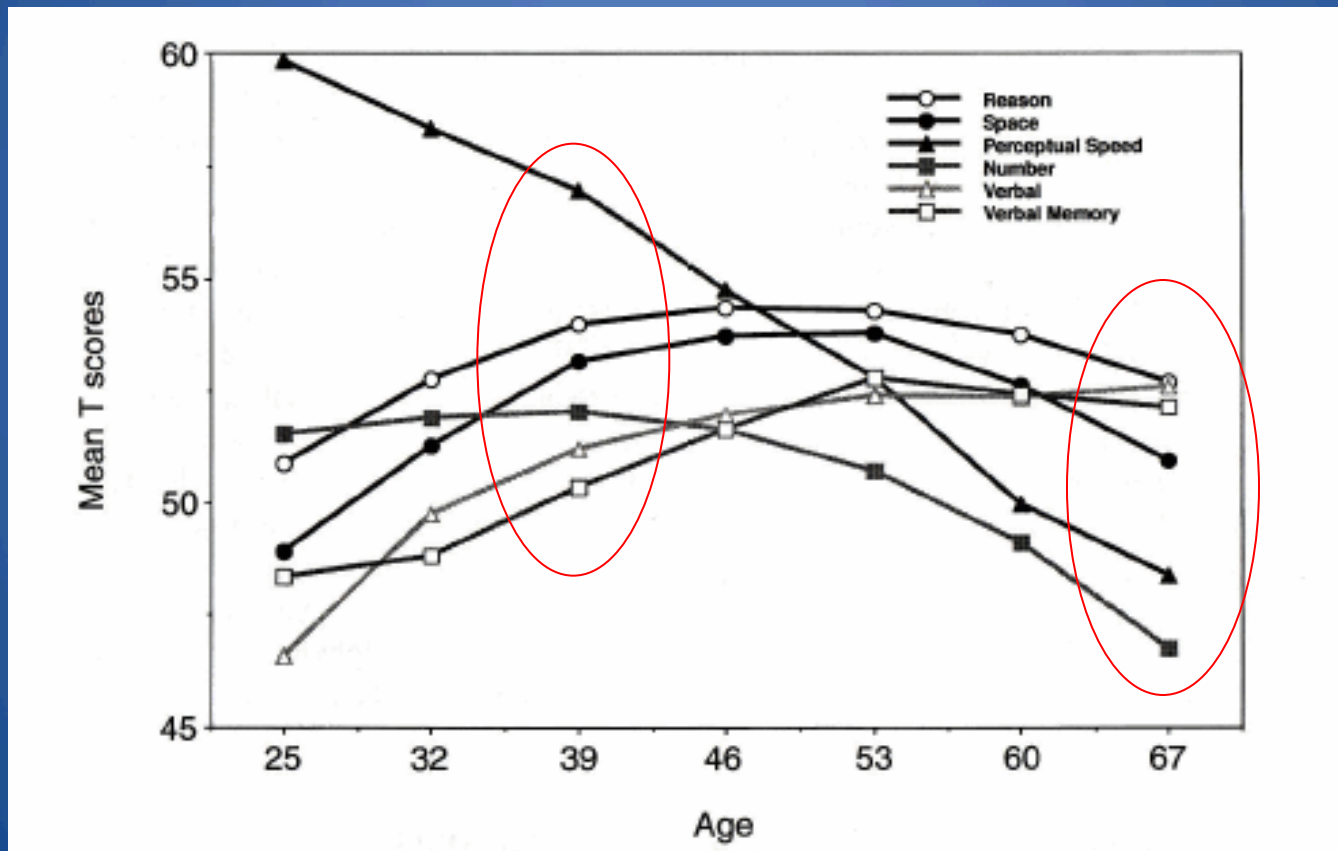
- Better or same
  - Verbal & Language skills
  - General knowledge, Vocabulary
  - Wisdom
- Lower
  - Information processing speed
  - Working memory
  - Divided/selective attention
  - Memory (new material)

# Normal Aging: Cognition



(Willis & Schaie, 1999)

# Normal Aging: Cognition



(Willis & Schaie, 1999)



# Summary

- People are living longer
- Increasingly higher % of older adults in the general population.
- Choosing to remain in workforce longer
- Age related decline in some areas of cognition
  - Attention
  - Information processing Speed
  - Working memory
  - Executive function
  - Motor speed
- Pattern of cognitive strengths & weaknesses different than when younger
- Work performance concerns

# Sally:

High school principal; 63 years; living alone

- Lupus Erythematosus 40 years
  - Cardiac & Urinary tract infections
- Steroids use increasing 35 years
  - Hip replacements

# Sally:

High school principal; 3 adult children; living alone

- Lupus Erythematosus 40 years
  - Cardiac & other complications
- Steroids used
  - Hip replacement



# Sally:

High school principal; 3 adult children; living alone

- Problems
  - Leaving important things behind
    - *Forgot documents when flying to another city for meeting*
  - Forgetting why went somewhere
    - *Standing in room wondering what she went there to do*
  - Making errors
    - *Spelling errors in emails and documents*
  - Names
    - *Thinking quickly of peoples names when she meets them again*
  - Forgetting to do things
    - *Wondering whether she has taken medication*
  - Near accidents
    - *Went through a red light*
    - *Failed to check for other traffic before moving off*
  - Depressed
    - *About the future*

# Sally:

High school principal; 3 adult children; living alone

- Problems
  - Leaving important things behind
    - *Forgot documents when flying to another city for meeting*
- Information processing speed low average
- Motor speed above average

# Sally:

High school principal; 3 adult children; living alone

- Problems
  - Leaving important things behind
    - *Forgot documents when flying to another city for meeting*
- Test results
  - Information processing speed low average
  - Motor speed above average
- *Moving faster than she is giving herself time to think*

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- Normal Aging
  - Attention
  - Vulnerability to distraction
  - Information processing speed
  - Worrying – more distraction



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  - Worrying – more distraction

Doesn't attend properly at outset, so doesn't learn, distraction, when can't remember doesn't give self time to think, then immediately worries about future, leading to more distraction.

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# Bottom Line

- It's no wonder that older adults experience difficulty
- There is no reason for them to leave work if:
  - Awareness of effects of normal aging on cognition and adjust for them
  - Allow time
  - Attend
  - Avoid distraction-one thing at a time
  - Organise, plan & simplify to assist learning
  - Don't stress



# Adjusting for the cognitive effects of normal aging in the work place

Leathem JM