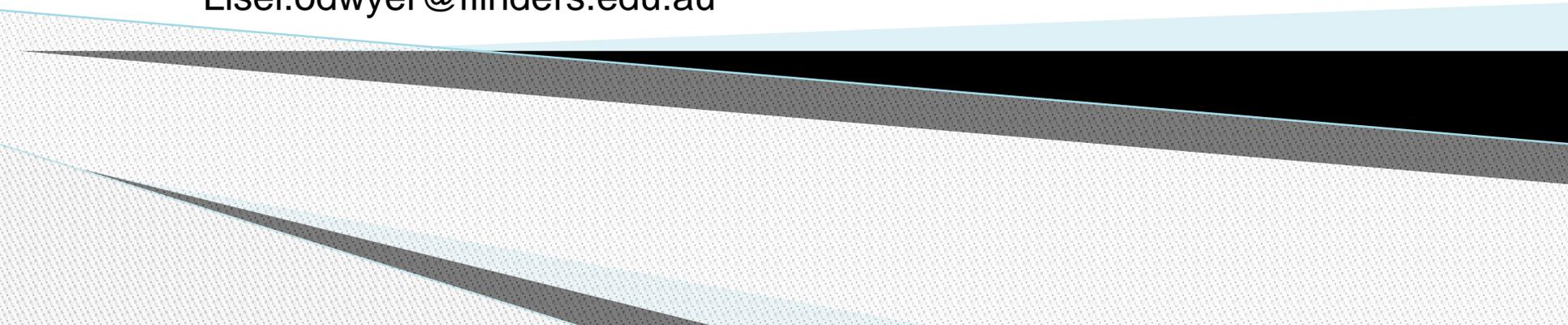# Beyond the Value of Time

Towards a Method for Quantifying the Other Impacts of Volunteering

Dr Lisel O'Dwyer

School of Social and Policy Studies
Flinders University

Lisel.odwyer@flinders.edu.au

Introduction

- What started this research?
  - Analysis of ageing and economic contributions of older South Australians' unpaid work for Office for the Ageing (OFTA, part of former Dept Families and Communities)
  - Included volunteering and caring

- Expanded to include value of volunteering from all age groups in SA and for the whole of Australia

Introduction (cont.)

- Work began in late 2011 with review of:
  - existing methods of valuing volunteering
  - existing valuations both overseas and in Australia
  - availability and quality of data on volunteering
- Produced dollar value for volunteering on national basis
  - Extensive media attention
  - Eagerly taken up by organisations using volunteers

Background

- Why value volunteering?
  - Money talks - "wow" factor
  - Draws attention to importance of volunteering from economic perspective
  - Recognises volunteers' work – otherwise invisible
  - Need to identify and quantify the scale of the contribution for government and policy makers so volunteering can continue to be supported
  - People familiar with values as a measure of importance

What should be included when valuing volunteering

- Volunteers' time
  - Plus other inputs to the economy (equipment, petrol, clothing, etc)
- The intangible/qualitative benefits and emotions felt by volunteers **and** beneficiaries of their work
- Expenditure saved through social multiplier effects of volunteering (crime, health, aged care)
- The value of saved lives
- Costs of volunteering

What should be included when valuing volunteering

- Volunteers' time
  - Other inputs to the economy (equipment, petrol, clothing, etc)

Time and Money

- Time
  - (Relatively) easily measured
  - A metric allowing for cross national and longitudinal comparisons
 - Not subject to changing definitions or understanding

- Money
  - A value can be placed on time
    - Paid work is based on the concept of time spent working
    - Different types of work command different rates of pay per hour or per annum
    - Use of average weekly earnings

Opportunity cost wage rate

- Several ways of quantifying unpaid work
  - Most straightforward method is the opportunity cost wage rate
    - The number of hours given by volunteers is multiplied by the average hourly wage rate, accounting for time spent travelling and the value of other inputs by volunteers

- Developed by Prof Duncan Ironmonger
  - Prof Ironmonger has used the model to estimate values for SA, Victoria, WA and Queensland

- The estimate for the value of volunteering for Australia followed this method
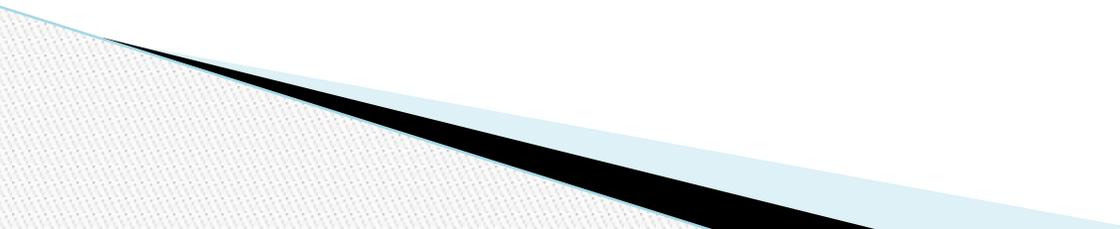
Overview of National Estimate

- First we need to define volunteering

  ◦ Standard accepted definition of formal volunteering used by Volunteering Australia and ABS basically the same

- VA definition
  ◦ Formal volunteering is an activity which takes place through not for profit organisations or projects and is undertaken:
    - to be of benefit to the community and the volunteer;
    - of the volunteer's own free will and without coercion;
    - for no financial payment; and
    - in designated volunteer positions only

- ABS definition –
    - a volunteer is 'someone who willingly gives unpaid help, in the form of time, service or skills, through an organisation or group'

Overview of National Estimate (cont.)

☐ Informal volunteering

- ◦ occurs outside the definition of formal volunteering (i.e. outside not for profit organisations, and without a volunteer position description).
- ◦ includes helping out neighbours and community members
- ◦ Included in national estimate because scale of informal volunteering often larger than formal (esp amongst CALD groups)

Overview of National Estimate (cont).

☐ Second, we need to know:
- How many volunteers there are at a specific point in time
- How much time they spend volunteering over a specified time period
- The average hourly wage rate

Where does this information come from?
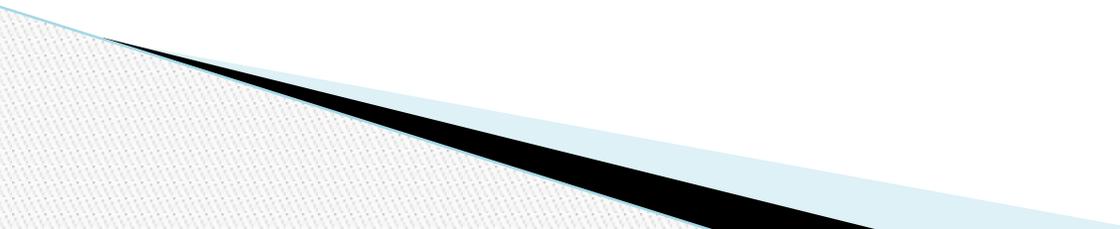
Data sources

- Most reliable source of data on number of formal volunteers is the General Social Survey conducted by ABS
  - Census data not a good source of data on actual numbers/rates of volunteering due to different recall period and self enumeration
  - Latest GSS did not ask about number of hours spent volunteering
- Collected by the ABS in Time Use Surveys
  - Last TUS was in 2006 and now discontinued

Assumptions

□ Conservative assumptions based on past trends where data is missing:

- ◦ number of average annual hours spent in formal volunteering in 2014 same as for 2006 (lowest rate on record);

- ◦ ratio of time spent on formal and informal volunteering is 30:70 (based on the average ratio for 1992, 1997 and 2006 which has hardly changed over time);

- ◦ time spent travelling is 18% of the time spent on all volunteering (based on the lowest share for travel over 1992, 1997 and 2006)

- ◦ other inputs account for an extra 12.7% of the value of time inputs (Ironmonger and Soupourmas 1999);

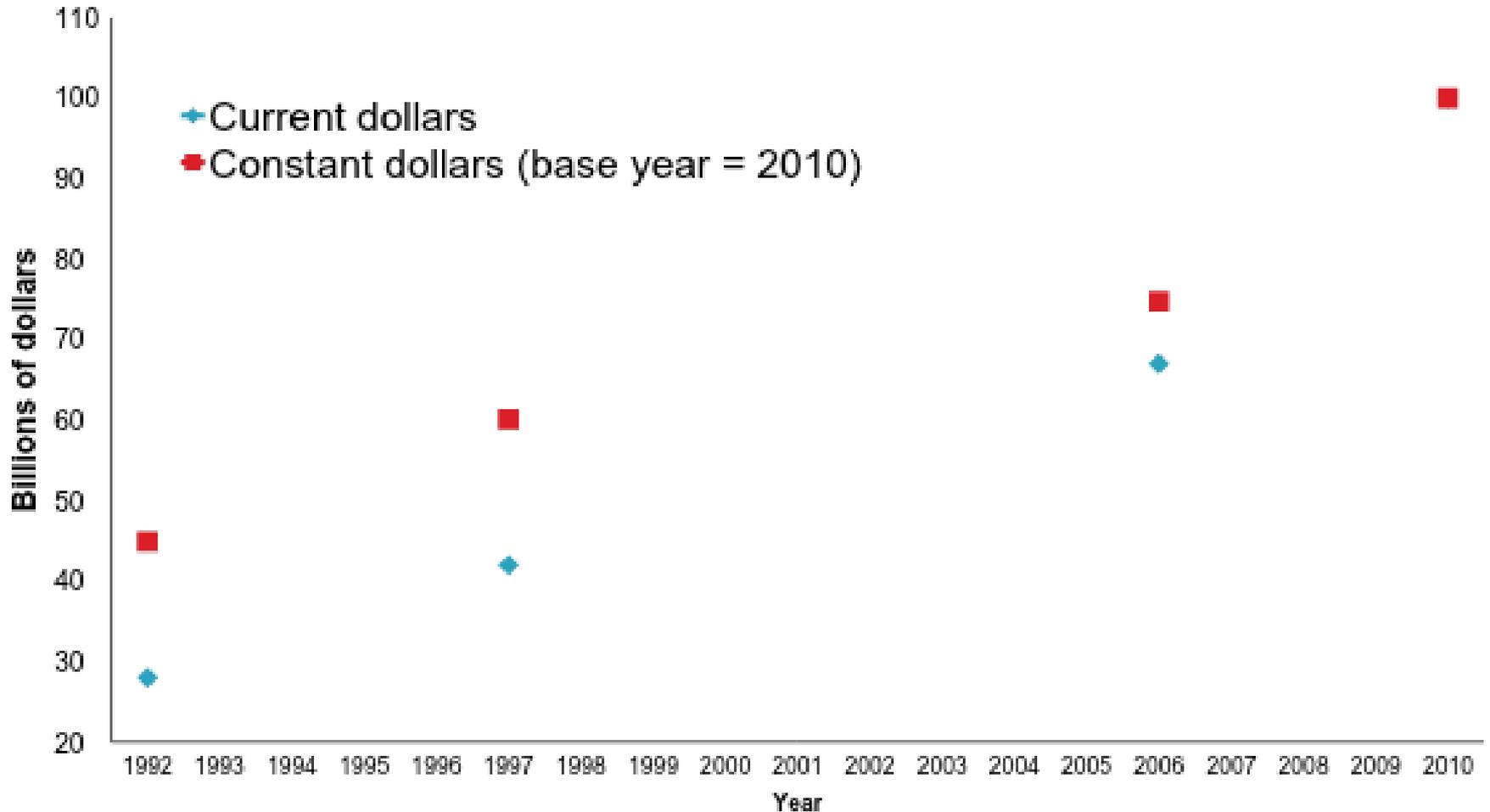- ◦ average wage rate in 2014 was $36 per hour (ABS Cat. No. 6306)

Estimate of value in 2014

- **$130 billion**

- **Equivalent to 9% of GDP in 2014** ($1.5 trillion)

(ABS Cat. No. 1345.0 - Key Economic Indicators, 2014)

Stu's Views   © 2002 Stu All Rights Reserved www.stus.com

Superhero Convention

"Us? No, we're not in disguise. We're pro bono volunteers."

Estimated Values for All Volunteering, Australia, 1992-2010

What should be included when valuing volunteering

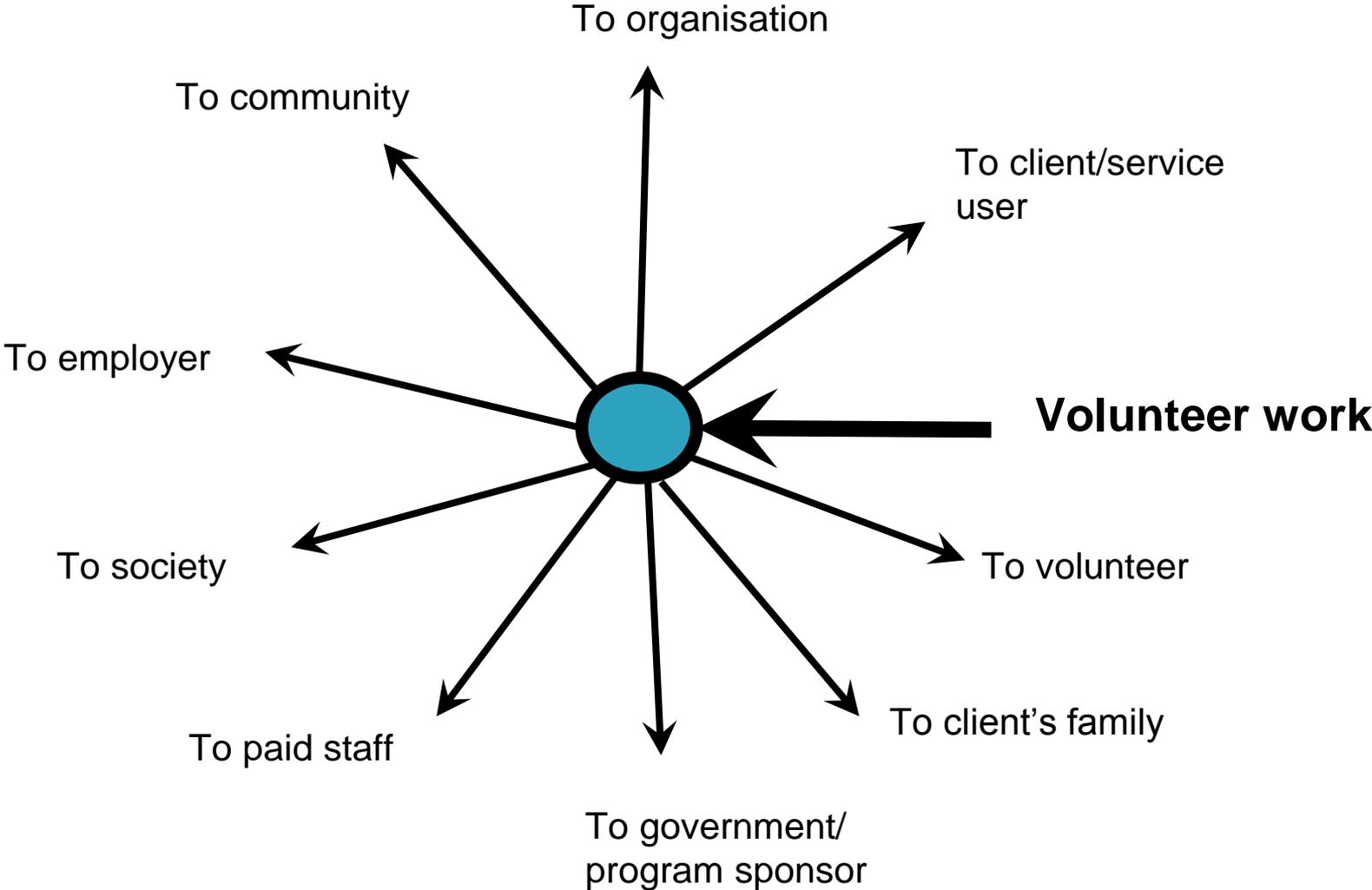- Volunteers' time ✔
  - Plus other inputs to the economy (equipment, petrol, clothing, etc)

- The intangible/qualitative benefits and emotions felt by volunteers **and** beneficiaries of their work

What is one hour of time really worth?

☐ Valuing the number of hours each volunteer gives may actually *obscure* the multiplicity of values created through volunteering.

☐ What does that mean?

Benefits Flowing From A Volunteer's Time

To organisation

To community

To client/service user

To employer

Volunteer work

To society

To volunteer

To paid staff

To client's family

To government/ program sponsor

How should the existence of multiple beneficiaries affect the estimate of the value of time?

- More conservative assumptions:
  - That only 4 of the possible 9 beneficiaries benefit from a single act of volunteering;
  - That the value to these beneficiaries is 25% the value of one hour of time based on AWE (approx $10)
  - That these 4 beneficiaries benefit to the same extent.

  - **Result – another $130 billion**

What are the benefits to the volunteer and the other possible beneficiaries?

- Tangible, intangible, physical and emotional benefits
  - Eg Meals on Wheels
    - Tangible benefit (something you can see, feel, touch, consume)
      - The meal
    - Intangible benefit
      - Assistance to paid staff, expansion of organisation
    - Physical benefits
      - Good nutrition,
      - Better health for volunteer and recipient
    - Emotional benefits
      - Personal satisfaction for volunteer,
      - Anticipation of visit and enjoyment of social contact and meal for recipient
      - Relief/peace of mind for family/friends/neighbours of recipient

The value of emotions

You can't buy happiness, can't buy me love...

When we get into the realm of emotions, and feelings, the tendency is to say "we can't put a price on things like that".

But actually, we can and we already do...
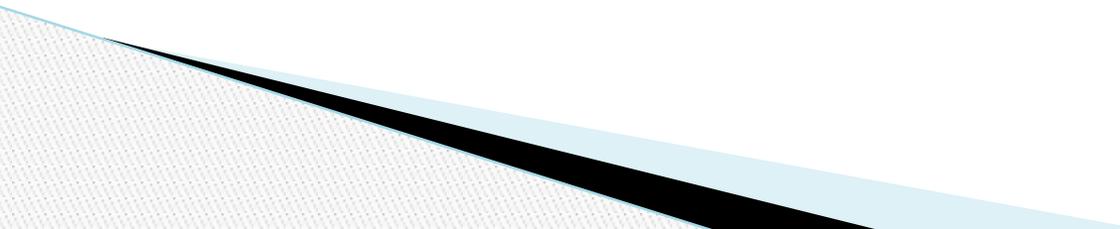
We already pay to experience or avoid emotions in daily life

- we pay….
  - to see exciting or funny movies and books
  - counsellors or therapists to avoid grief, guilt, embarrassment or anger or to help us seek happiness or satisfaction.
  - for prescribed medications to deal with long held and unwanted emotions such as anxiety, and sadness
    - and some may purchase drugs in the black market on a recreational basis to experience excitement or relaxation.
  - for tickets to sporting events and associated merchandise so that we can feel (and show) pride or disappointment

How do we put an average value on emotions?

- Lau, White and Schnall (2012)
  - applied the willingness to pay model developed in economics to quantify the value of emotions

  - used nominal amounts of money

  - study participants intuitively understood the logic behind this approach.

- on average, participants willing to pay £81(Aud $140) to experience one hour of "high intensity" positive emotions
  - £63 (Aud$57) to avoid one hour of high intensity negative emotions.

- .

Assumed value of positive emotions from volunteering

- Unlikely to be as "intense"
- Likely to last for more than one hour

- **$20**

- Who experiences positive emotions from a volunteer's actions?
  - Volunteer (direct benefit)
  - Person helped (direct benefit)
  - Family and friends of person helped (indirect benefit) (assume n=1)

Assumptions (conservative!)

- Volunteering rate (formal and informal) is 50% of population aged 18+
- 3 persons benefit to equal extent from each act of volunteering for at least 1 hour per week (volunteer +2)
- 100 per cent of these people experience one hour of positive emotions every week
- An estimated 8.5 million people were volunteers in 2010 (formal and informal)
- 8.5m X 3=26 million people
- 26m*$20 X 52

- **Value of positive emotions = $27 billion per year**
  - **($1040 per person per year)**

What should be included when valuing volunteering

- Volunteers' time ✓
  - Plus other inputs to the economy (equipment, petrol, clothing, etc)
- The intangible/qualitative benefits and emotions felt by volunteers **and** beneficiaries of their work
- Expenditure saved through social multiplier effects of volunteering (crime, health, aged care)

Expenditure indirectly saved by government/community

- Mayer (2003)
  - the only known analysis attempting to quantify the indirect economic benefits of volunteering.
  - Based on links between volunteering (as measure of social capital) and savings in expenditure on social processes such as crime, educational outcomes and health .
  - Analysis limited by availability of data; had to assume:
    - Relationships between changes in level of volunteering and in social consequences same in Australia as elsewhere;
    - Relationships between levels of volunteering and crime and mortality rates are causal, not correlational

Indirect savings (cont.)

- a one unit increase in volunteering in SA in 2001 (as measured by group membership) would result in
  - a saving of
    - $46 million from reduced mortality
    - $572 million from reduced crime
      - One hour of volunteering = a saving of $14.00 by reducing mortality and crime.

  - a gain of
  - $278 million in economic growth

- Converting this to Australia for 2014 equates to
  - $13 billion in savings
  - $6.5 billion in growth

i.e. Approx. $20 billion

What should be included when valuing volunteering

- Volunteers' time ✓
  - Plus other inputs to the economy (equipment, petrol, clothing, etc)
- The intangible/qualitative benefits and emotions felt by volunteers **and** beneficiaries of their work ✓
- Expenditure saved and economic growth through social multiplier effects of volunteering (crime, health)
- The value of saved lives ✓

Value of lives saved

- Many forms of volunteering directly save lives
  - Firefighting   Surf lifesaving
  - Surf lifesaving   Counselling/suicide hotlines
  - Paramedics

- But difficult to quantify how many people would have lived or died without volunteer's action

- We don't like to put a value on life – but happens in the real world all the time
  - Life insurance
  - Compensation
  - Decisions on how to allocate funding for road safety
  - Funding for medical research

Value of lives saved (cont.)

- Value of a Statistical Life/ Life Year
  - The main approach used in Australia is based on the expected earnings of the individual (productivity)
    - Taxation
    - Consumption
    - Savings and investment

  - The average (mean) value of an Australian statistical life was $6 million in 2008 (Access Economics)
    - Compares with mean of $9.4 million and median of $6.6 million internationally
  - This value cannot be stratified by age due to inadequate data
    - Also stratification by age or other socioeconomic factors ethically difficult, dangerous or inappropriate.

Value of lives saved (cont.)

- No data on lives saved, so have to make assumptions/guesstimates (open to debate!)

- Assumptions
  - One life is worth $8 million in 2014 dollars
  - 1000 lives saved in Australia per year

  - **Value of life saved = $8 billion**

What should be included when valuing volunteering

- Volunteers' time ✓
  - Plus other inputs to the economy (equipment, petrol, clothing, etc)
- The intangible/qualitative benefits and emotions felt by volunteers **and** beneficiaries of their work
- Expenditure saved and economic growth through social multiplier effects of volunteering (crime, health)
- The value of saved lives
- Costs of volunteering

Costs of volunteering

- "Real" or "net" value = benefits – costs
- Considerable work on cost – benefit analysis of volunteering
  - But mostly focused on the volunteers, not organisations' costs
- Organisations' (and volunteers') costs are a form of input or contribution to furthering volunteering
  - Should be **included in**, not subtracted from estimates of value of volunteering

Costs (cont.)

- Volunteering Australia (2007)
  - Average annual net cost to individual volunteer is $600 (ie after any reimbursement from organisation)
    - Most (75%) of this cost is petrol

- Informal volunteers
  - No data on costs but can assume:
    - Little to no reimbursement from any source
    - Petrol costs similar to formal volunteers'
    - No clothing/equipment requirements

- Costs to volunteers already treated as contribution to volunteering in Ironmonger model

Costs (cont.)

- Cost to organisations of reimbursement
  - Varies by size of organisation
  - No average dollar figure presented but "most" organisations provide "partial" reimbursement

- Other costs to organisations
  - Recruitment/advertising
  - Training
  - Management
  - Insurance
  - Equipment and depreciation

Costs (cont.)

- Cost of volunteering to organisations
  - Needs to be recognised in value of volunteering
  - Not explicitly available in Non-Profit Institutions Satellite Account (ABS Cat No. 5256.0)
  - Latest account is for 2006-07 anyway!

- Therefore, have to make a (conservative) assumption of costs of partial reimbursement and other expenses, based on existing body of knowledge....

Assumption of cost per volunteer to organisation

- How many NFP organisations in Australia?
  - 600,000, including 440,000 smaller, unincorporated organisations (Productivity Commission 2010).

- Assumptions
  - each of the 600,000 organisation has 15 volunteers
  - Organisations spend $200 per year per volunteer (conservative nominal amount - happy to debate this!)
  - Nice easy round figure to work with

- **Total annual costs approximately $2 billion**

Grand total

- Time and inputs - $130b
- Other benefits, incl. emotions $130b
- Multiplier effects $ 20b
- Lives saved $ 8b
- Costs to organisations $ 2b

- **Approximately $290 billion**

$290 billion compares with:

- National government expenditure in 2012-13 on
  - Health : $32 billion;
  - Education : $10.2 billion
  - Recreation and culture: $2.2 billion
  - Defence : $22 billion
  - (ABS Cat No. 5204 Table 35).

- The value of other industry sectors' production in 2013-14:
  - Mining $164 billion
  - Agriculture: $29 billion
  - Retail: $52 billion (ABS Cat No. 5206 Table 6).

Where to now?

- What else should be included?
  - Eg benefits to non-human entities?
- Need to give more attention to other inputs
- Need to expand multiplier analysis
- Is there any double counting?
- How to adjust basic assumptions to better reflect reality
- Lobby for better data collection to reduce need for assumptions
- What costs (if any) need to be subtracted from the total value?
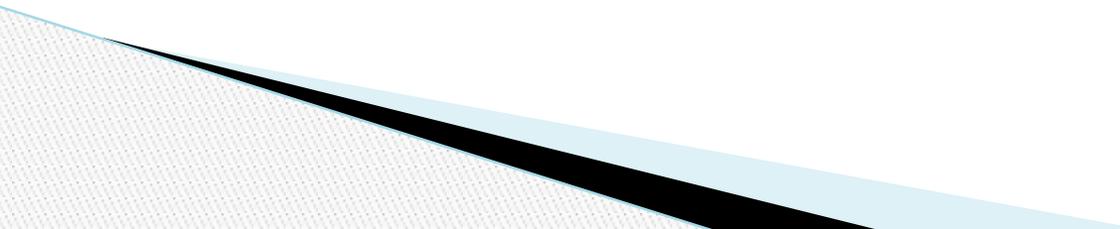
Thank you for your interest!

Lisel.odwyer@adelaide.edu.au

08 8313 1103