

Methods of Measuring Economic Value and Impact

Presentation to the National Heritage Science Forum

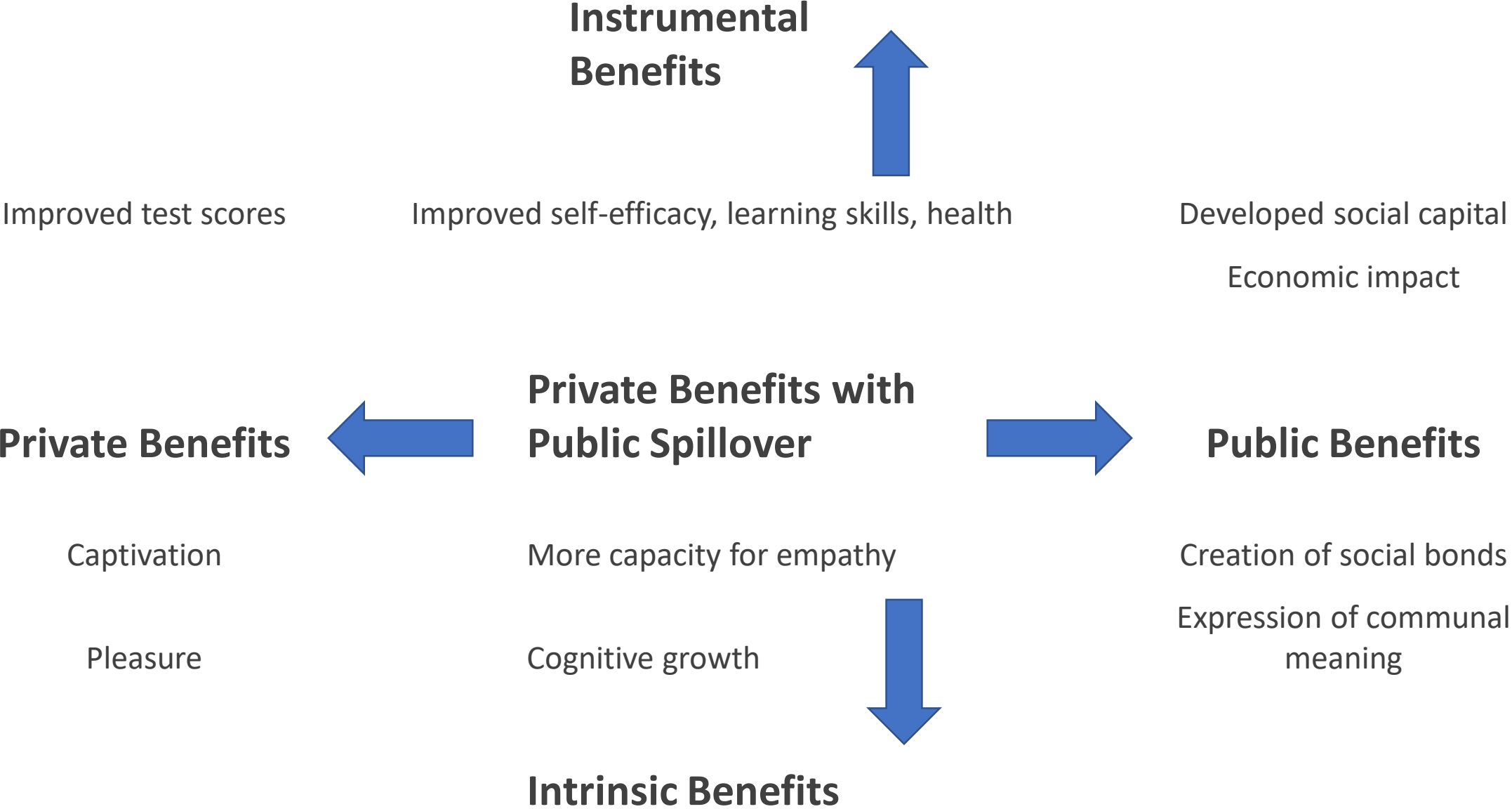
Impact Seminar

Scottish National Portrait Gallery

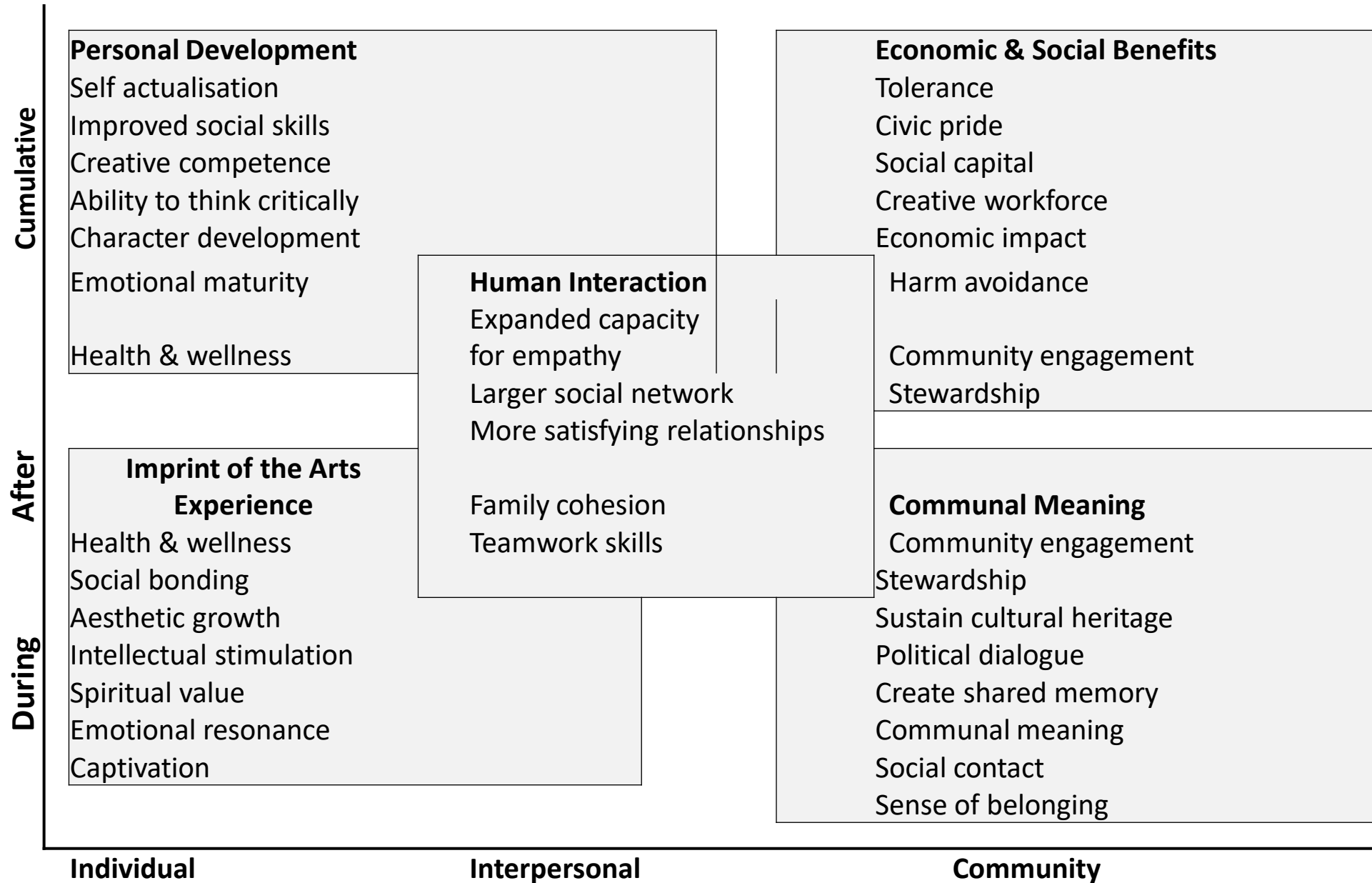
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Frank Gribben

RAND's Framework for Understanding the Benefits of the Arts



Brown's Dimensions of Benefit



Some basic principles of economic valuation

Economic value is based on a utilitarian perspective: the appropriate action to take in any circumstance is that which maximises the utility (or wellbeing or happiness) of individuals.

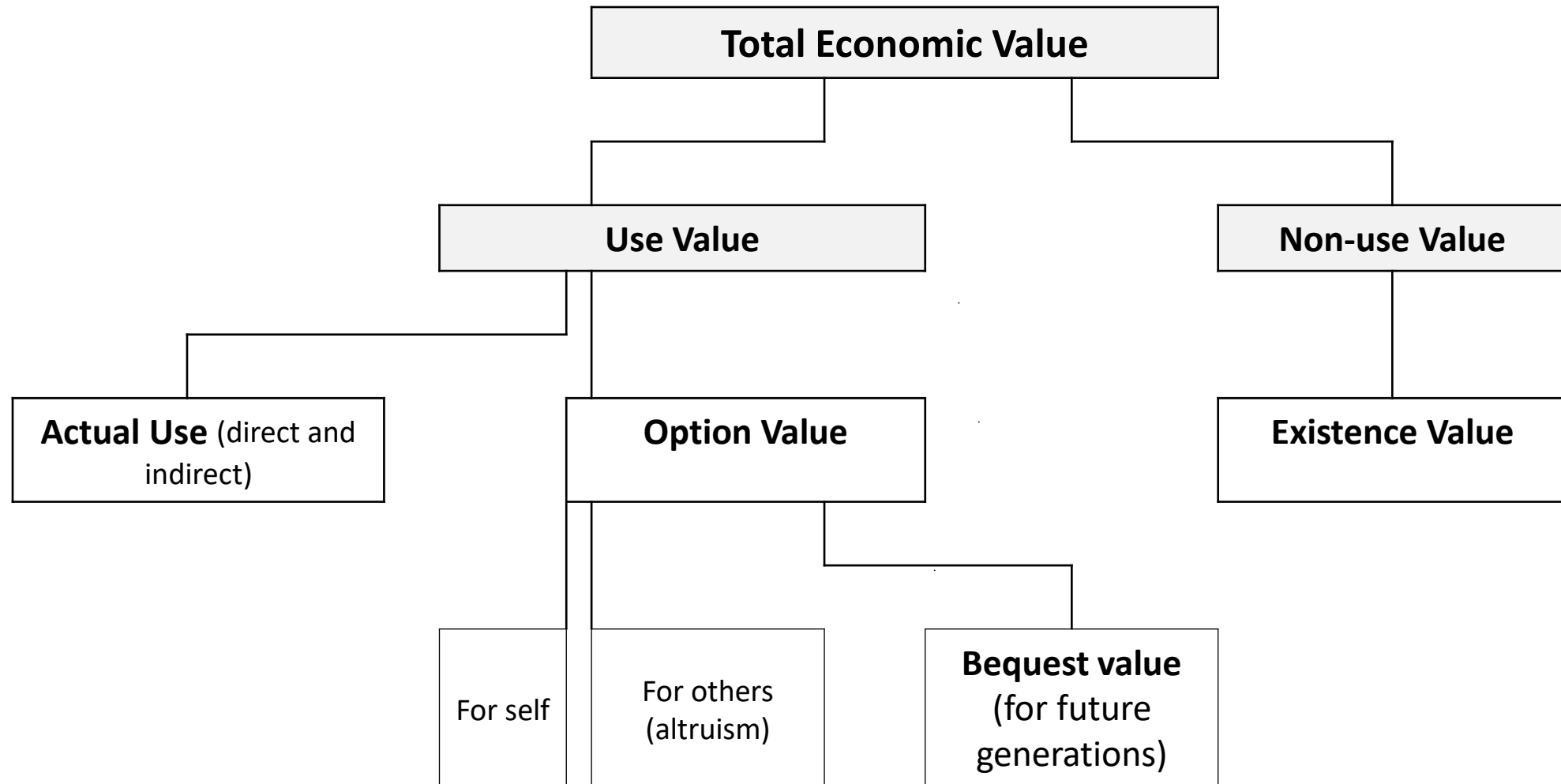
Individuals seek to maximise their utility (or wellbeing or happiness) subject to their budgetary constraints.

Economic valuation assumes that social welfare derives from the aggregation of individual preferences: societal preferences are a weighted combination of individual preferences.

The value of any good - including cultural/heritage goods - is the addition to utility (or wellbeing or happiness) that arises out of the use of that good.

Economic value is much broader than market value. Any direct or indirect benefit that arises from an activity/organisation is a form of value created by that activity/organisation.

Components of Total Economic Value



Total Economic Value

Market use value: The value derived from the consumption of cultural goods and services purchased on the market;

Non-market use value: The value derived from consumption of cultural goods and services NOT purchased on the market;

Option value: The value an individual places on themselves or others having the option to consume and enjoy a cultural good at some point in the future, if the future provision depends on continued provision in the present;

Existence value: The value an individual derives from knowing that a good exists, even if though they will not consume the good;

Bequest value: The value an individual derives from knowing that a good will be preserved for future generations to enjoy;

Approaches to Calculating Economic Benefit

Two distinct methodological approaches

MARKET VALUE

Economic Contribution Analysis and *Economic Impact Assessment*

focusses on contribution/impact of organisations and their trading activities in national or regional economies

ECONOMIC VALUE

Preference-based Valuation, Wellbeing Valuation and **SROI**

Recognises that culture/heritage largely public goods, or non-market goods; focusses on calculating monetary equivalent value that public places upon culture/heritage and/or culture/heritage organisations

ECONOMIC VALUE

PREFERENCE-BASED VALUATION

Stated Preference

Contingent Valuation
Choice Modelling

Revealed Preference

Hedonic Pricing
Travel Time

WELLBEING VALUATION

SOCIAL RETURN ON INVESTMENT

Preference-based valuation: Stated Preference

Able to capture **use and non-use values** of non-market goods

CONTINGENT VALUATION – valuation of non-market good as a whole

Constructs and presents hypothetical market to questionnaire respondents in sample population; asks their maximum willingness to pay (WTP) for a good, or minimum willingness to accept (WTA) for a bad. By aggregating responses can attribute a monetary value to the goods or service, and extrapolate to whole population.

Green Book approved; championed by DCMS; widely used in cultural valuation

e.g. British Library, Bolton Museums & Galleries, Historic Scotland, National Galleries of Scotland, Tate Liverpool, Wine Museum in Douro Valley, Natural History Museum, Korean heritage site.

Preference-based valuation: Stated Preference

Able to capture **use and non-use values** of non-market goods

CHOICE MODELLING – usually valuation of specific attributes of a non-market good

Also constructs hypothetical market for questionnaire respondents in sample population; breaks non-market goods and services into package of attributes and presents scenarios to assess comparative value of each attribute. If price is included, statistical techniques can calculate WTP estimates for the other attributes (e.g. for longer opening times).

Green Book approved; more common in environmental valuation, but some studies on culture/heritage

e.g. Old Parliament House, Australia; Danish archaeological site; Hadrian's Wall.

Preference-based valuation: Revealed Preference

Not hypothetical situations, *revealed preference* approaches use observed behaviour in real markets to infer value placed on a non-market good.

But – only really capture **USE VALUE**.

HEDONIC PRICING

Explores impact of public/non-market goods on market prices in well-functioning markets. For example, a house with a good view attracts a higher price than otherwise identical house without view. Difference between prices of the houses provides estimate of the value of good view.

Green Book approved; more common in environmental valuation, but some studies in culture/heritage and urban design/development

e.g. effect of proximity to theatres on Manchester house prices.

Preference-based valuation: Revealed Preference

TRAVEL TIME METHOD

uses the amount of effort/time expended in travelling to a site/to consume public good to estimate the value that visitors place on accessing the non-market good.

Green Book approved; more common in valuation of recreational features (beaches, parks), but some studies in culture/heritage e.g. various Dutch museums, USA civil war battlefields, St Mary's cathedral, Maryland, Armenian heritage site.

Wellbeing Valuation Approach

Relies on actual experiences, so overcomes some problems associated with preference-based valuations.

Estimates the impact of the good/service and income on people's subjective wellbeing (SWB). Uses estimates to calculate amount of money that would produce the equivalent SWB increase – what economists call the Equivalent Variation.

E.g. if accessing local heritage site increases SWB of person A by 1 index point and increase in income of £5,000 p.a. increases SWB by same, then value of heritage site to person A is £5,000 per year. By aggregating individual level SWB gains and relating to population-level data on factors which influence SWB, can calculate total public value of heritage site.

Green Book approved, used by Happy Museum Project, but poor results from Tate Liverpool and Natural History Museum.

Social Return on Investment

Measures and monetises social outcomes of an organisation or project.

SROI devised to account for environmental and social value not reflected in conventional financial accounting. Collaborative method, work with stakeholders to create 'impact map' and plot how organisation/project will deliver impacts/outcomes.

Second step calculates market values by using available data to put financial proxies on all those impacts identified by stakeholders. But monetisation is challenging, especially for intrinsic impacts such as increased resilience, self-esteem or community pride.

Highly specific to each organisation/project given need to co-produce impact map etc. with stakeholders. Not really suitable for comparison across organisations or for aggregation.

Not Green Book approved. Relatively recent approach in cultural valuation, although recently used by Turner Contemporary.

ECONOMIC CONTRIBUTION ANALYSIS

Also known as Economic Footprint analysis.

Measures size of organisation's or sector's activities, compared to national economy as a whole in monetary terms; does not account for non-market values.

Includes ***two measures***: employment and Gross Value Added (GVA).

Employment is simply number of people who work for organisation/sector.

GVA is an estimate of the value generated for economy as a whole by the organisation's activities: measures value organisation 'adds' to its inputs in the course of making its outputs.

Green Book approved. Only really suitable at sector level, of for large organisations. Used by BBC; DCMS to measure size of creative industries; CEBR for Arts Council England; National Endowment for the Arts for USA performing arts sector; Universities UK for HE sector.

ECONOMIC IMPACT ASSESSMENT

Measures the ***direct*** (money spent on goods and services),
indirect (audiences spending in local restaurants) and
induced (hotel workers spend their wages in local economy)
economic impacts of an organisation or project on local or regional economy.

Considers only market activity. Cannot capture non-market benefits/values or public benefits accruing to non-users (option, existence, bequest value).

Technically complex. Need highly stratified data on visitors, granular tourism spend data, and reliable estimates of Deadweight, Displacement and Leakage effects.

AIM/Arts Council England created toolkit to help organisations.

Green Book approved. Widely used in cultural sector: e.g. Edinburgh Festivals, Edinburgh Cultural venues, the Louvre, English museum sector, National Galleries Scotland, Dundee Contemporary Arts.