Summer School on Capability and Multidimensional Poverty

Sabina Alkire August 2011, Netherlands
Calibration: Who Chooses Parameters

Recall:
AF methodology is a general framework for measuring multidimensional poverty – an open source technology that can be freely altered by the user to best match the measure’s context and evaluative purpose.
Calibration: Who Chooses Parameters

Recall: Unidimensional Calibration choices
- Variable (income/expenditure)
- Poverty line
- Prices / shadow prices
- PPP values

In Practice:
- Designers defend choices
- Present robustness tests
Calibration: Who Chooses MD Parameters

Considerations:
1. Purpose of Evaluative Exercise
   • Targeting
   • Evaluation
   • National Poverty Measure
2. Formal Constraints (constitution)
3. Space (capability; resources)
4. Choice Mechanisms (participatory)
5. Robustness tests (for pluralism, diversity)
Six Essential Choices for your own AF Measure:

1. **Unit of Analysis** (person or household)
2. **Dimensions** (if helpful)
3. **Indicators**
4. **Deprivation Cutoffs** for each Indicator
5. **Weights** for each Indicator (Dimension)
6. **Poverty cutoff** (to identify the poor)
   (Whether to use $M_0$, $M_1$, or $M_2$)
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These are guided by
- **Purpose** (National measure, Targeting, M&E)
- **Data Availability** (now or from new survey)
- **Legal, political, and institutional** constraints
Other questions to consider at startup: e.g. National MPI

1. Legal basis? (how endure across time)
2. How to update – Data / Survey; Frequency
3. Who will update (Institution)
4. What Incentives it provides (ministries)
5. Political process of developing measure.
   1. Public Consultations?
   2. Expert Group – National Statistics & Economics
   3. International/Regional Experts?
Key: What is the measure for?

1. Particular objectives of the exercise
   - The purpose of the evaluation
   - The region, or sector, or years of interest
   - The policy actors involved
Sample purposes for MD measures

- to complement or combine with official measures – that show the level and composition of poverty, by regions and over time.
- to monitor or evaluate the impact of programmes
- to predict poverty or vulnerability in the future
- to target the poorest more effectively
- to identify vulnerable or excluded groups in the population
Exercise

- Think of one concrete situation in which you have developed a measure: What was the purpose? What were the constraints?

1. Particular objectives of the exercise
   - The purpose of the evaluation
   - The region, or sector, or years of interest
   - The policy actors

2. Unchangeable constraints (*might* include)
   - Data
   - Political powers
   - Time and Costs (e.g. of participation)
The purpose of the measure guides...

1. Choice of **Unit of Analysis** (order of aggregation)
2. Choice of **Dimensions**
3. Choice of **Variables/Indicator(s) for dimensions**
4. Choice of **Dimension Cutoffs** for each indicator
5. Choice of **Weights** across indicators
6. Choice of **Poverty Cutoff** across indicators
7. **Identification** (who is poor)
8. **Aggregation** (How much poverty does a society have)
1. Choice of Unit of Analysis

- Individual
- Household
- Municipality
- Nation

Choice depends upon *data*, and *purpose*.
1. Choice of Unit of Analysis

It is related to the *order of aggregation*

- Individual ~ first across D then N
- Household ~ first within hh then D, then N
- Municipality ~ first within M then across D
- Nation ~ first across C then across D
How To Choose Unit of Analysis

• **Person** :
  – Best: to look at gender, age, diversity
  – Most expensive: most datasets don’t have; hard to interview everyone
  – Need to allocate hh resources.

• **Household** :
  – Most common.
  – Requires combining all data from household members (e.g. years of school)

• **A Group** :
  – E.g. Children, Youth, Women
Unit of Analysis: Person (or hh)

- **Order of Aggregation first across dimensions, then across people (Joint Distribution)**
  - Coheres with a normative focus on a person.
  - Has information on intensity and maybe on depth.
  - Decomposable as far as data allows.
  - Requires all questions from same dataset.
  - [if desired, the measure can represent interaction – substitutability/complementarity – between dimensions]
Bourguignon & Chakravarty 2003: key idea ~ each person’s or hh’s deprivation is noted.

• “The fundamental point in all what follows is that a multidimensional approach to poverty defines poverty as a shortfall from a threshold on each dimension of an individual’s well being. In other words, the issue of the multidimensionality of poverty arises because individuals, social observers or policy makers want to define a poverty limit on each individual attribute: income, health, education, etc…”
Some of the most important policy questions involved relate to how developments in one area (e.g. education) affect developments in others (e.g. health status, political voice and social connections), and how developments in all fields are related to those in income… For example, the loss of quality of life due to being both poor and sick far exceeds the sum of the two separate effects, implying that governments may need to target their interventions more specifically at those who cumulate these disadvantages. (p 55)
Marginal Measures:

- Order of Aggregation: First across people, then across dimensions (e.g. HPI).
  - Aggregate data are widely available
  - Can combine different data sources
  - Can combine with distribution information
  - Do not identify who is poor.
  - Cannot assess joint distribution
  - Cannot portray the intensity of poverty,
  - May not be able to decompose by state or smaller groups
2. Choosing Dimensions:

Please write down:

• Dimensions of poverty used in any multidimensional measure you have made or worked on.
• The Indicators of poverty used, and
• The Deprivation cutoffs
2. Choosing Domains

- Grusky and Kanbur 2006 acknowledge the consensus that the multidimensionality of poverty and inequality should not be treated as soft social issues that can be “subordinated to more important and fundamental interested in maximizing total economic output.”

- But they regard the choice of dimensions as a ‘pressing conceptual question.’ “Economists have not reached consensus on the dimensions that matter, nor even on how they might decide what matters.”
Sen’s Criteria for Dimensions

• Purpose of the Evaluation (targeting, monitoring, measure quality of life, sectoral)
• Value and priority [for relevant group(s)]
  – basic importance  (Sen 2004)
• Appropriateness for institutional response
  – social influenceability (Sen 2004)
How Researchers Choose Dimensions

- **Existing Data or Convention**
- **Theory**
- **Public ‘consensus’**
- **Ongoing Deliberative Participatory Processes**
- **Empirical Evidence regarding people’s values**

—Based on Alkire 2008
How Researchers Choose Dimensions

• *Existing Data or Convention* – select dimensions (or capabilities) mostly because of convenience or a convention that is taken to be authoritative, or because these are the only data available that have the required characteristics.
How Researchers Choose Dimensions

• *Theory* – select dimensions based on implicit or explicit assumptions about what people do value or should value. These are commonly the informed guesses of the researcher; they may also draw on convention, social or psychological theory, philosophy, religion, and so on.
How Researchers Choose Dimensions

- Public ‘consensus’ – select dimensions that relate to a list that has achieved a degree of legitimacy due to public consensus. Examples at the international level are universal human rights, the MDGs, and the Sphere project; these will vary at the national and local levels.
How Researchers Choose Dimensions

- **Ongoing Deliberative Participatory Processes** – select dimensions on the basis of ongoing purposive participatory exercises that periodically elicit the values and perspectives of stakeholders.
How Researchers Choose Dimensions

- *Empirical Evidence regarding people’s values* – select dimensions on the basis of empirical data on values, or data on consumer preferences and behaviors, or studies of which values are most conducive to mental health or social benefit. (Most used in studies to maximise ‘happiness’ or subjective well-being)
Ideally use a combination of methods

- **Existing Data or Convention**
- **Theory (in part – not alone)**
- **Public ‘consensus’**
- **Ongoing Deliberative Participatory Processes**
- **Empirical Evidence regarding people’s values**
Ideally use a combination of methods

- **Example:** - a national measure
  
  - A recent participatory study
  - The MDGs, or a National Plan
  - Domains of policy action
  - Set of variables in dataset
  - Some theory (e.g. SSF list)
Procedural justification of dimensions (Robeyns)

1. *Explicit formulation:* In your paper explain why each dimension is claimed to be something people value and have reason to value.

2. *Methodological justification:* Explain and defend how you generated the set of dimensions.

3. *Two stage process: Ideal-Feasible:* First say what dimensions you would have wanted, and explain why some were not feasible.

4. *Exhaustion and non-reduction:* Be diligent to include in the ideal list all relevant options including non-market or non-traditional ones.
Myth: The possible dimensions are endless

• Fact: Researchers regularly come up with VERY similar lists of dimensions.
• Example: a review of the 19 main international multidimensional indices of poverty and well-being find that all dimensions fall into 10 categories. A further review of 45 accounts corroborates this observed regularity.
Often observed Dimensions

1. Life, Health, Reproduction
2. Security
3. Work and Leisure
4. Education, Knowledge, Skills
5. Relationships
6. Self-direction, Empowerment, Agency
7. Political Life, Governance
8. Inner Peace and Self Expression
9. Culture and Spirituality
10. Environment
### Table: Indicators of Well-being

<table>
<thead>
<tr>
<th>Authors</th>
<th>Defining concepts</th>
<th>Basic Needs and Intermediate needs</th>
<th>Central human functional capabilities</th>
<th>Dimensions of well-being</th>
<th>Quality of life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rawls (1972)</td>
<td>Primary goods</td>
<td>Basic human values</td>
<td>Bodily well-being</td>
<td>Life</td>
<td>Bodily well-being Access to health services Good physical environment</td>
</tr>
<tr>
<td>Doyal and Gough (1993)</td>
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<td></td>
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<td></td>
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<tr>
<td>Nussbaum (2000)</td>
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<tr>
<td>Narayan-Parker (2000)</td>
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<tr>
<td>Camfield (2005)</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Material well-being</td>
<td>Income and wealth</td>
<td>Protective housing Economic security</td>
<td>Material well-being Food Assets</td>
<td>Food Shelter</td>
<td></td>
</tr>
<tr>
<td>Mental development</td>
<td>Knowledge Practical reasonableness</td>
<td>Basic education</td>
<td>Senses, Imagination, Thought Emotions Practical reason Play</td>
<td>Education (Bangladesh and Ethiopia, not Thailand or Peru)</td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Freedom of occupation Skillful performance in work and play</td>
<td>Work</td>
<td>Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td>Physical security</td>
<td>Civil peace Physically safe environment Lawfulness (access to justice) Personal physical security Security in old age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social relations</td>
<td>Social bases of self-respect</td>
<td>Friendship Significant primary relationships Affiliation Social bases for self-respect</td>
<td>Social well-being -Family -Self-respect and dignity -Community relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual well-being</td>
<td>Self-integration Harmony with ultimate source of reality</td>
<td>Autonomy of agency Civil and political rights Political participation</td>
<td>Control over one’s environment Freedom of choice and action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment and political freedom</td>
<td>Rights, liberties, opportunities Powers and prerogatives of office and positions of responsibility Freedom of movement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect for other species</td>
<td></td>
<td></td>
<td></td>
<td>Other species</td>
<td></td>
</tr>
</tbody>
</table>
### Possible dimensions becoming clear

<table>
<thead>
<tr>
<th>Stiglitz-Sen-Fitoussi</th>
<th>Bhutan’s GNH</th>
<th>Voices of the Poor</th>
<th>Finnis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Health</td>
<td>Bodily Wellbeing</td>
<td>Health &amp; Security</td>
</tr>
<tr>
<td>Education</td>
<td>Education</td>
<td>Material Wellbeing</td>
<td>Knowledge</td>
</tr>
<tr>
<td>Economic security</td>
<td>Material Std</td>
<td>Social Wellbeing</td>
<td>Work &amp; Play</td>
</tr>
<tr>
<td>Personal Security</td>
<td>of living</td>
<td>Security</td>
<td>Agency &amp;</td>
</tr>
<tr>
<td>Balance of Time</td>
<td>Time Use</td>
<td>Psychological</td>
<td>empowerment</td>
</tr>
<tr>
<td>Political Voice &amp; Governance</td>
<td>Governance</td>
<td>Wellbeing</td>
<td>Relationships</td>
</tr>
<tr>
<td>Social Connections</td>
<td>Community</td>
<td></td>
<td>Harmony - Art,</td>
</tr>
<tr>
<td>Environmental</td>
<td>Environment</td>
<td></td>
<td>Religion, Nature</td>
</tr>
<tr>
<td>Conditions</td>
<td>Culture &amp;</td>
<td></td>
<td>Inner peace</td>
</tr>
<tr>
<td>Subjective measures</td>
<td>spirituality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of quality of life</td>
<td>Emotional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well-being</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
End of 2. Look at what you wrote down:

• How were those dimensions chosen?
• How could you ‘justify’ the dimensions
  – *Existing Data or Convention*
  – *Theory*
  – *Public ‘consensus’*
  – *Ongoing Participatory Processes*
  – *Empirical Evidence on people’s values*
Six Essential Choices for your own AF Measure:

✓ **Unit of Analysis** (person or household)
✓ **Dimensions** (if helpful)

3. **Indicators**

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These are guided by

- Purpose (National measure, Targeting, M&E)
- Data Availability (now or from new survey)
- Legal, political, and institutional Constraints
3. Choice of Variables/Indicators

1. Normative & participatory Justification
2. Kind of indicator
   (functioning/resource/utility)
   (input/output/outcome; stock/flow)
3. Data Availability
4. Institutional/Historical Considerations
5. Literature on that indicator / database
6. Interrelations with other indicators
7. Accuracy of data for chosen unit of analysis
4. Choice of Deprivation Cutoffs

- Purpose of exercise
- Legal documents
- Participatory exercises
- Consultation with measure users.
- Empirical examination of data/ robustness
Consider field studies in Bhutan
– Each field study had three parts:

– Participatory Analysis of Poverty
– Brief MPI Survey
– Case Studies & Key Informant Interviews
5. Field Studies: Participatory FGD

- The Participants:
  - Identified the focal problems of poverty
  - Ranked the dimensions of poverty
  - Identified ‘cutoffs’ – who is poor?
  - Provided feedback on the 3 trial measures
Participatory FGD – Dungna: Dimensions of poverty:

- Land
- Children’s Education
- Income & Livelihood
- Dependency Ratio
- Food Insecurity
- Domestic Violence
<table>
<thead>
<tr>
<th>Participatory FGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dungna: Ranking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most important</th>
<th>Land</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children’s education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next most important</th>
<th>Dependency ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income and money</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third most important</th>
<th>Food Insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic Violence</td>
</tr>
</tbody>
</table>
## Participatory FGD

### Dungna: Cutoffs

<table>
<thead>
<tr>
<th>Category</th>
<th>Per hh of 5 persons:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>3-5 acres</td>
</tr>
<tr>
<td>Children’s education</td>
<td>To class 13 or higher</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>Not sure</td>
</tr>
<tr>
<td>Income and money</td>
<td>Ng 5,000/month [5]</td>
</tr>
<tr>
<td>Food Insecurity</td>
<td>Enough to eat</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>Not sure – has improved</td>
</tr>
</tbody>
</table>
Participatory FGD

• Reflections on the proposed national indicators for Bhutan:
  1. Both educational variables are important
  2. Both health variables also important.
  3. Electricity they hope to have soon.
  4. Sanitation – without slab is fine.
  5. Cooking fuel wood – yes; women have eye problems and headaches when they are older.
  6. 3 livestock? depends on quality (Jersey cow)
  7. 1 acre of land is too little – depends on quality
**Another community: FGD**

**Ruepisa: Ranking**

<table>
<thead>
<tr>
<th>Most important</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land</td>
</tr>
<tr>
<td></td>
<td>Sanitation</td>
</tr>
<tr>
<td></td>
<td>Health</td>
</tr>
<tr>
<td></td>
<td>Drinking Water</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next most</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Housing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third</th>
<th>Income / Money</th>
</tr>
</thead>
</table>

| Fourth                  | Animal Assets        |
How to fix $w$ and $k$?

Participatory Normative:

- **Pros**: Explicitly involves public debate to make informed value judgements.
- **Cons**: Incomplete without additional considerations; the process may be costly; is the public actually consulted representative; updating.
How to fix \( w \) and \( k? \)

Statistical Methods:

**Pros:** Makes use of information in the dataset; claimed to be more ‘scientific’.

**Cons:** Difficult to defend normatively: one cannot derive an ‘ought’ from an ‘is’; may deliver values that are unreasonable or politically indefensible; has difficulties with variation over time; has difficulties with transparency.
How to fix $w$ and $k$?

- **Axiomatic**: Propose axiomatic principles that embody underlying value judgements re: identification, to narrow the possible range identification methods, or to select one. **Pros**: General principles can be clear and transparent, easily communicated to policymakers, and are explicitly normative.

- **Cons**: It may be difficult to obtain agreement on the basic principles; a given set of axioms may not lead to a unique identification method.
Axiomatic Example: Mexico

- **Economic Deprivation (ED):** A person is economically deprived if the person’s income falls below the income cutoff.

- **Social Deprivation (SD):** A person is socially deprived if any social achievement falls below its respective cutoff.

- **Identification (I):** A person is multidimensionally poor if and only if the person is both economically deprived and socially deprived.
Axiomatic Example: Mexico

• *These three axioms are sufficient to identify the poor:*

• **Theorem 1** Suppose that the identification function $\rho_{wk}(y_i)$ satisfies axioms $ED$, $SD$, and $I$. Then $\rho_{wk}(y_i) = \text{ for all } y_i$. 
Axiomatic Example: Mexico

To set weights: two more axioms required.

• **Balance** (**B**): The weight on economic deprivation should be no greater than the aggregate weight on social deprivations; the aggregate weight on social deprivations should not exceed the weight on economic deprivation.

• **Equal Rights** (**ER**): No social dimension should receive greater weight than any other social dimension.
Axiomatic Example: Mexico

**Theorem 2** Suppose that the identification function \( \rho_{wk}(y_i) \) satisfies axioms \( ED, SD, I, B, \) and \( ER. \)

Then \( w = \bar{w} \) and \( \bar{k} = k < \bar{k} + \bar{w}_2. \)
Axiomatic Example: Alternatives

• Use more discriminating dimension-specific thresholds on social dimensions.

• Apply dimension-specific weights that represent the probability that someone deprived in that social attainment is actually deprived.

• Alter the social deprivation (SD) principle to require two or more social deprivations rather than one.
5. Choice of Weights

1. Where are weights applied?
2. Setting Weights: Rationales
3. How are normative weights set?
   • Equal weights
   • Expert Opinion
   • Participation and Public Deliberation
   • Survey based – subjective
   • Survey based – necessities
6. Choice of Poverty Cutoff(s)

- Purpose of exercise
  - Policy purpose
- Are any indicators ‘essential’; then $k > w_d$
- Subjective / Participatory / normative input
- Robustness tests for relevant comparisons
In evaluating this summerschool how do we weight expansions in:

1. Understanding of each lecture topic
2. Understanding the Capability Approach
3. Completion of paper & stata exercises
4. Collegial Relationships (social capital)
5. Ability to complete your own research
6. Understanding of Peruvian poverty
7. Future earning potential across 20 years
8. Your satisfaction with life as a whole
Weights: not just ‘explicit’ $w_d$

- Number and kind of indicators (if equally weighted)
- Transformation and Normalisation functions for variables
- Degree of substitution among dimensions (if relevant)
- Direct weights set on dimensions
- Deprivation Cutoff level

Poverty Measure = Aggregation of
- weight of each dimension, applied to
- transformed variable, corrected for
- substitutability
Setting Weights – Rationale(s)

• Statistical – by far the most common
  – Different techniques, eg
    • Data-reduction
    • Latent Variable
    • Regression-based

• Normative
  – Different reasons, eg
    • Importance
    • Priority
Weights *between* dimensions, for a poverty measure based on capabilities, must be *normative* rather than statistical.

Weights *within* dimensions might be normative or statistical.

Today: focus on normative weights.
Setting weights: The need for *clarity* on the selection of the *procedure* for setting weights. How and why did you set weights?

“Since any choice of weights should be open to questioning and debating in public discussions, it is crucial that the judgments that are implicit in such weighting be made as clear and comprehensible as possible and thus be open to public scrutiny” (Anand and Sen 1997 p. 6)
A note on language – arbitrary

Normative weights are often called ‘arbitrary’ -?

**Arbitrary:** “To be decided by one's liking; dependent upon will or pleasure; at the discretion or option of any one.”

“Derived from mere opinion or preference; not based on the nature of things; hence, capricious, uncertain, varying;”

“Unrestrained in the exercise of will; of uncontrolled power or authority, absolute; hence, despotic, tyrannical.”

Equal weights

• Most commonly used approach: HDI theory
• Sometimes is called ‘non-weighting’
• But this is not accurate
• Equal weights represent value judgements
• Example:
  1. BMI, years of school (0.5)
  2. BMI, yrs school, caloric intake, anaemia, (0.25)
• What is the:
  – Weight on BMI in each example?
  – Weight on Health vs Ed in each example?
Weights and Choice of Dimension

- Choice of dimensions & weights may both be value judgements; and the choices are interlinked.
- So we could choose dimensions to be equal in importance
  - e.g. Atkinson (2002): “the interpretation of the set of indicators is greatly eased where the individual components have degrees of importance that, while not necessarily exactly equal, are not grossly different”
- this is particularly relevant when the same exercise might address the choice of dimensions and of weights – e.g. expert opinion, participatory exercises
What do weights ‘mean’ normatively?

**Kinds of value judgements** required to set weights vary depending on the evaluative exercise.

**Importance:** Absolute importance of a dimension for poverty (national poverty measure across time)

**Priority:** Urgency of making progress in a dimension at a given time (3-year plan)

**Context-specific:** Importance and priority of dimensions in a particular context, which is shaped by the reach and mandate and reporting requirements of the institutions involved (ministry of health, participatory milk cooperative, budget allocations, relevant variables to choose from a given dataset).
Example: Priority

“For example, the ability to be well nourished cannot in general be put invariably above or below the ability to be well sheltered, so that the tiniest improvement of one will always count as more important than a large change in the other. We may have to give priority to the ability to be well nourished when people are dying of hunger in their homes, whereas the freedom to be sheltered may rightly receive more weight when people are in general well fed, but lack shelter.” (Sen 2004, p.78 – Feminist Econ.)
Example: Importance

In some situations, such as the development of a long term multidimensional poverty measure to replace an income poverty line, the weights should reflect the importance of each dimension relative to the other dimensions.

- Long term poverty measure
- Comparative
Justify normative weights:
1) Priority; or 2) Importance

Priority
- Time-specific
- M&E
- Institutional powers
- Planning exercises

Importance
- Long term
- More
- Comparative
Sen: Criteria for setting normative weights (theory)

It is thus crucial to ask, in any evaluative exercise… how the weights are to be selected. This judgmental exercise can be resolved only through reasoned evaluation. For a given person who is making his or her own judgments, the selection of weights will require reflection rather than interpersonal agreement or a consensus. However, in arriving at an agreed range for social evaluations (e.g. in social studies of poverty), there has to be some kind of a reasoned consensus on weights or at least on a range of weights. This is a social exercise and requires public discussion and a democratic understanding and acceptance (Sen, 1996, p. 397).
• So individual reflects on life; social requires reasoned consensus among people with different values.

• so are informed by ‘prevailing values’

“In the case of functionings and capabilities, since there are no markets directly involved, the weighting exercise has to be done in terms of explicit valuations, drawing on the prevailing values in a given society.”
• Open to critical scrutiny

It is not so much a question of holding a referendum on the values to be used, but the need to make sure that the weights – or ranges of weights – used remain open to criticism and chastisement, and nevertheless enjoy reasonable public acceptance. **Openness to critical scrutiny**, combined with—explicit or tacit—public consent, is a central requirement of non-arbitrariness of valuation in a democratic society. (Sen 1997: 206)
Aggregation & Range

Disagreement is likely to be durable ~ but dominance and intersection approaches can be used with a range of weights.

“There is no need here for different people, making their respective judgments, to agree on the same list, or on the same weight for the different items; we are individually free to use reason as we see fit. A framework for the analysis of well-being is just that – not a complete solution of all evaluation problems, nor a procedure for interpersonal agreement on relevant judgments.”
But who will bell the cat?

How set weights *in practice*???

Expert Opinion?  
Survey Methods?  
Participatory Methods?  
Combination?
Expert Opinion

Expert opinion has been used to:

• Set priorities in health care
• Devise lists of capabilities, needs and rights.
• Scrutinize HDI weights (Chowdhury and Squire, 2006).

Advantages:

• relatively quick and cheap
• experts grasp complex ideas easily and respond appropriately
• experts to have extensive relevant knowledge
Process:

1. **Select Experts** (number, competence, uncertainty)

2. **Select Choice Procedures**
   - E.g. Voting or external aggregation procedure
   - Consensus building through discussion, reasonable argument and deliberation

3. **Challenges**
   - Expertise on *values* of people?
   - How assess expertise vs own views
3. Challenges, cont’d

Tension: experts vs democracy

How revise expert weights?

How often revise expert weights?

Clarifying ‘expertise’ is political (the experts well placed to comment on local value judgments or needs – NGO staff, facilitators, judges – may not be those considered ‘experts’ in academia or development.

Empirical comparisons (Ch & Sq – no difference)
Participatory Exercises

- Often used for other purposes
- Groups are asked to **name and rank** the most important aspects of deprivation or ill-being.
- Exercise generates a list of deprivations and an ordinal ranking (usually) or cardinal weighting (rarely).
Using Participatory Data:

• How translate ordinal *rankings* into cardinal *weights*?
• How assess the quality of participation
• How assess the test-retest validity?
• How combine different rankings from different participatory groups? (voting)
• How often revise?
Challenges of Participatory approaches:

1. Organisation and facilitation
2. Inequality and unfairness in discussions
3. Deliberation vs. bargaining and power imbalances
4. Participation, information and (under)representation
5. Adaptation vs. listening to the poor
6. External Power and Domination
The Contribution of Deliberation

In addition to gathering information, participatory approaches provide a mechanism for public discussion and deliberation, in which participants:

• exchange views and information
• influence proceedings by ‘offering reasons others can accept’
• learn from the experiences of other people and revise their opinions accordingly;
• pool their capacity to analyse the relative merits of different arguments and options; and
• move towards a consensus grounded in the common good.
Using Subjective Wellbeing weights
A new technique – but problematic:

Schokkaert & Fleurbaey 2008

• “happiness data can help us obtain information on individual preferences about the various dimensions of life...”
• “we ...argue against the welfarist use of such data on the ground that this is unlikely to respect individual preferences on what makes a good life.”
Example:

• Consider a rich and a poor person.
• 1) an average inhabitant of Iceland with a university degree, a life expectancy of 81.5 years and an income of $36,510 (PPP-corrected);
• 2) an average inhabitant of Sierra Leone with no schooling, a life expectancy of 41.8 years and an income of $806 (PPP-corrected).
• Both persons have similar answers about their happiness and satisfaction.
• It is still very possible that both have a strong preference for the former’s life and could defend such preferences with good reasons.
Using survey data to set weights: Socially Perceived Necessities

- Is this item ‘essential for everyone to have in order to enjoy an acceptable standard of living in South Africa today’.

  - Yes
  - No

- Percentage saying ‘yes’
<table>
<thead>
<tr>
<th>Item</th>
<th>% of people defining as essential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains electricity in the house</td>
<td>92</td>
</tr>
<tr>
<td>Someone to look after you if you are very ill</td>
<td>91</td>
</tr>
<tr>
<td>A house that is strong enough to stand up to the weather</td>
<td>90</td>
</tr>
<tr>
<td>Clothing sufficient to keep you warm and dry</td>
<td>89</td>
</tr>
<tr>
<td>A place of worship in the local area</td>
<td>87</td>
</tr>
<tr>
<td>A fridge</td>
<td>86</td>
</tr>
<tr>
<td>Street lighting</td>
<td>85</td>
</tr>
<tr>
<td>Ability to pay or contribute to funerals</td>
<td>82</td>
</tr>
<tr>
<td>Separate bedrooms for adults and children</td>
<td>82</td>
</tr>
<tr>
<td>Having an adult from the hh at home at all times</td>
<td>81</td>
</tr>
<tr>
<td>when children under 10 from the hh are at home</td>
<td></td>
</tr>
<tr>
<td>Having police on the streets in the local area</td>
<td>80</td>
</tr>
<tr>
<td>Tarred roads close to the house</td>
<td>80</td>
</tr>
</tbody>
</table>
Survey data: value vs feasibility

• ‘Please say whether you have each of the following. If you do not have the item please say whether you don’t have it and don’t want it, or don’t have it and can’t afford it.’
  – ‘have’
  – ‘don’t have and don’t want’ [not valued]
  – ‘don’t have and can’t afford’ [capability poor]
Socially perceived necessities

• Individual level responses
  + Democratic
    – Not informed by discussion
• Apply at the individual level? (*not done*)
• Aggregate – how? Mean?
• Values change; weights change across time?
  – Difficulties in comparisons across time
  – Political considerations
Summary

• Use normative weights between dimensions
• This is an active area of innovation
• All approaches each have +/-:
  – Equal Weights
  – Normative weights set transparently
  – Expert opinion
  – Participatory Approaches
  – Survey data
Summary cont’d

• Weights affect outcomes significantly
• Must consider not only explicit weights but also transformation, choice of dimensions, and substitutability
• Methodologically:
  – Justify selection of weights clearly
  – Report different weights
  – Perform Robustness tests
“A choice procedure that relies on a democratic search for agreement or a consensus can be extremely messy, and many technocrats are sufficiently disgusted by its messiness to pine for some wonderful formula that would simply give us ready-made weights that are ‘just right.’ However, no such magic formula does, of course, exist, since the issue of weighting is one of valuation and judgment, and not one of some impersonal technology.” (Sen 1999:79)
Closing Observation

The Danger of Manipulation

- Shared by all poverty measures
- Cannot be countered technically
- Countered by transparency, so that ‘many eyes’ can detect and complain

Question for Reflection:

- Pretend you are a corrupt policy maker. Make and justify a ‘bad’ measure, using your dataset. How could an analyst figure out your deceit?
Our Hope for Your Multidimensional Poverty Measures:

That we can see:

What it’s made of.
How it works.

So users can better analyse and act to reduce human suffering.