4.2 Correction for item non-response

Types of non-response

**Table 3.2 Types of non-response**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Description</th>
<th>Common solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Unit non-response</td>
<td>Failure to obtain any information on a sample household, including the household interview and personal interviews in the household</td>
<td>Weighting</td>
</tr>
<tr>
<td>(2) Partial unit non-response</td>
<td>Failure to obtain a personal interview with a subset of the eligible adults in a household</td>
<td>Weighting or full-case imputation</td>
</tr>
<tr>
<td>(3) Item non-response</td>
<td>Failure to obtain some target variables in an otherwise completed interview (this generally affects non-income variables in register countries and all – especially income – variables in survey countries)</td>
<td>Imputation for missing items</td>
</tr>
<tr>
<td>(4) Partial item non-response</td>
<td>Refers to the situation when some but not all the information is obtained on a target variable. The most important case is that of detailed income components: a part of the component may be missing, and/or conversion may be required from the collected net to the required gross amount.</td>
<td>Imputation for the missing part</td>
</tr>
</tbody>
</table>

Source: Verma and Betti, 2010


www.oecd.org/social/inequality-database.htm >Methods and Concepts
From Canberra (2011)

• Country practices:

- EU-SILC 2009: differences between countries:
  - BEL CZE EST FRA ITA AUT POL SPA UK apply full-case imputation
  - DEU GRC PRT SVK apply an adjustment factor to total income based on characteristics of the household
  - IRL LUX NLD HUN deleted all households with one or more missing persons

- Australia: ABS imputes information for partial non-response when (1) income or other data in a questionnaire are missing from one or more non-significant person’s records or (2) all key questions are answered by the significant person(s) but other data are missing

• Non-response for individual components generally below 10%, sometimes higher for self-employment and capital income (Canberra, p50, Table 5 page 150)

From OECD data reviews:

• YES, in: AUS, AUT (EU-SILC), CHL, EST, FIN, FRA, KOR, SVN (HBS), SWE, TUR (HILCS) – and:
  - DEU: SOEP Frick & Grabka 2010 (next presentation)
  - LUX: Four generic models based on the « Imputation and Variance Estimation » developed by the University of Michigan. Next to these models, specific procedures (simulation, regressions, deductions) have been used for certain income components
  - NZL: introduced in 2009/10 and applied back to 2006/7
  - POL: HBS: households were replaced
  - PRT: EU-SILC: through regression method
  - USA: CPS: hot-deck imputation

• NONE (as reported), in:
  - HUN: Household Monitor Survey: Missing data on specific income types are not imputed
  - EU-SILC: for Greece & Spain (in contradiction with Canberra Box 3.4)
For discussion

• To which extent treatment on item non-response may have had an impact on country-estimates?

• Should we investigate more on practices for items non-response to improve cross-country comparability?

• Should the OECD Terms of Reference (ToR) include recommendations on non-response? (currently none)