

## **ITEW 2009**

### **Notes Session 8: Fantasy hour**

**Alan Karr**

*Concerned about institutional NR*

Education data collection in US

Ultimate sample units are students, but get to students through institutions

Institutions can act as gatekeepers to the selected students

NR behavior depends on both students and institutions

Example: school decides not to participate on behalf on 30 students etc.,

Hierarchical dependence structure difficult to think about

**Sarah Nusser**

*US statistical system has to obey to standards*

*Paul - OMB has standards for NR rate but not for the rest*

**Clyde Tucker**

*Testing for no child left behind increases respondent burden*

*More programs like this would increase burden further*

**Clyde Tucker**

*Models of total survey errors*

Hansen, hurwitx, pritzker

Lessler and kalsbeek

*Wants to see model with terms for all these errors*

All possible interactions as well? (Nusser)

**Frauke Kreuter**

*OMB says standards would be easier if there were such a model*

*NR standards exist because NR is measurable and quantifiable*

**Andy Peytchev**

*Last years' conf had papers that tried to estimate each error source (Wolter et al in NIS)*

But each estimate is an estimate

Many are model based

*Often largest error source is the one where you have best data*

**Mary Mulry**

*Estimate errors altogether*

*Then estimate covariances*

*Hard to convince people you've thought of all errors*

**Onno Hofmeister**

*Perhaps we need standards for surveys*

*Communicate standards to data users*

*Difficult to evaluate surveys and estimates when surveys differ on their quality measures (one has high NR, another has high ME)*

**Clyde Tucker**

*Provide estimates of error in your estimates of nonsampling error (e.g. confidence intervals on NR bias)*

**Stephen Horn**

***Not all error sources are estimable***

***Another error source: governance of surveys***

Contracts between PI and data collector

These relationships need to be disclosed to data consumers

**Lars Lyberg**

***Number of error sources always increasing as our knowledge of response process improves***

Translation is a relatively new one

And error sources do not disappear

***Thus total error is always increasing—error grows!***

***Tom Smith has new paper reviewing error sources (AAPOR 2009)***

Very comprehensive

**Alan Karr**

***Some error introduced purposefully to protect confidentiality***

***These errors are part of TSE, but we put this error in deliberately***

**Leyla**

***In cross-country surveys, these TSE standards are important***

***Countries differ in how they protect confidentiality***

**Paul Biemer**

***Does standardization across countries lead to less error?***

***Standardization may reduce variance but may increase bias in some countries***

***Do you want error sizes to be equal across countries so estimates are most comparable?***

Or do we want error sources to be as small as possible in each country, even if that makes results less comparable?

## **Leyla Mohadjer**

*Standards are best practices in data collection, sampling, frame construction*

*PICCA is example here*

Field test might shed light on how much standardization is possible (might change countries procedures as result)

## **Matt Schonlau**

*The more I learn the more I see TSE approach is about judgment*

*Rather than numbers as standards, standards are lists of things to think through*

## **Leyla Mohadjer**

*Started standards and guidelines, how to do*

*Makes you go through from beginning to end, what needs to be followed, and why (that effect, purpose and rational) then QC procedure for that standard*

*Many cases countries come back say can't do. Opens doors to find other ways that might be good too.*

## **Paul Biemer**

*Standards are useful if those are minimal standards (RTI has that for every aspect of their surveys) .. all their surveys have at least meet these requirements. If clients outside, they can show the guidelines, this is minimum, most surveys exceed.*

*Dictating does not work, but need minimum bar*

*Have to be able to answer to clients and users what is the minimum you adhere to*

*Standards to dictated might not work*

## **Otto Hofmeister**

*i.e. understanding of concept has to be comparable*

*same would be true with other elements of the survey error process*

## **David ??**

*Have minimum standards become norm?*

*NR is not problem*

*But for other error sources some people work to just meet the minimum standard*

## **Paul Biemer**

*Effort towards reducing error depends on project directors*

*Often client prescribes effort and cost*

*Only acts as lower standard*

*e.g. 10% verification is minimum, but clients go beyond*

*If client ask for 5% verification project directors are willing to do it though...*

## **Lars Lyberg**

*Difference between measuring and minimizing error*

*Sometimes measures are complicated and come to late*

*Alternative is have list of error sources and try to come up with good processes that are stable and generate small errors*

## **Paul Biemer**

*Process will determine quality*

*Standards are not useful for teaching survey methods*

Just statements of what is minimal requirement

*For someone learn how to design have to have experience in other things*

**Alan Karr**

*Standards should not interfere with ultimate goals*

*Exceptions always have to be made*

**Marcel Bureau**

*Total error is a moving target*

Additional sources of error

e.g. new modes lead to new kinds of errors

*Survey estimates will never be right*

**Carolina Casas-Cordero**

*Clyde said yesterday that 5 survey statisticians would adjust data for NR in 5 different ways*

We need to feel comfortable with this, embrace variability

Use sensitivity analysis

Train data users to expect that there is not one true value

Learn to deal with uncertainty

**Clyde Tucker**

*Confidence intervals are our method of capturing uncertainty*

*But our intervals are too narrow*

**Andy Peytchev**

*How do we define TSE?*

Not a single number (with CI) for a survey

## ***Groves Survey Errors and Survey Costs***

**Measure error?**

**Fix error?**

**How much does reduction cost?**

***Association between errors***

**e.g. do experienced interviewers reduce NR but increase ME?**

**Emilio Lopez Escobar**

***Rather than standardize output, standardize input in countries participating in cross-cultural surveys***

***Training of statisticians in each country***