

Method Topic 3: Identification of Appropriate Methods...

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Appropriate methods to address

- Potential selection bias
- High attrition in research (including non-response)
- Unanticipated changes to the work environment

Desired Outputs

*Considering: Selection Bias, High Attrition,
Unanticipated Changes to the Work
Environment –*

- Critique of current methods to control for bias and confounding
- **Identification of gaps in reporting and recommendations for reporting potential**
 - **Confounders**
 - **Effect modifiers**
 - **Response bias**

Selection Bias

- “**Selection** of individuals, groups or data for analysis in such a way that proper randomization is not achieved, thereby ensuring that the sample obtained is not representative of the population intended to be analyzed. It is sometimes referred to as the **selection** effect.”
- Labor market supply of women and determinants of wages for those women. Consider that you want to know what factors predict wages of working women and you intend to make general statements about women’s wages.
 - No bias: Equal, similar groups. Working population randomly chosen. Characteristics of the working subsample are similar to the non-working subsample.
 - Bias: Work / non-work status is not random and the working and non-working population differ. Some factors that affect the work / non-work status may also affect the wages.

Attrition Bias

- Loss of participants – those that leave are not analyzed
- “Survivorship” bias - only those that are remaining are analyzed
- Non-response – characteristics of those who respond are somehow different than those who did reply
- Concern: characteristics of the participants in the intervention and comparison groups are different and may affect the groups and outcomes of interest, in ways that cannot be attributed to the intervention

Unanticipated Changes to the Work Environment

- Unanticipated changes to work due to the intervention
- External influences upon the work environment that may affect study results
- Internal changes within the work setting
- How do we deal with these?
(methodologically, analytically, practically, reporting)

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Considerations

- Getting at small groups that can't randomized (small businesses)
- Well-being (not being in the workforce due to poor well-being; dropping out due to poor well-being)
- Are there examples of TWH-related studies that are good examples?
- What can we extract from other disciplines / approaches?
- What do we need to do to prevent / account for unanticipated changes to the work environment?