

# Interviewer Characteristics, their Doorstep Behaviour, and Survey Co-operation

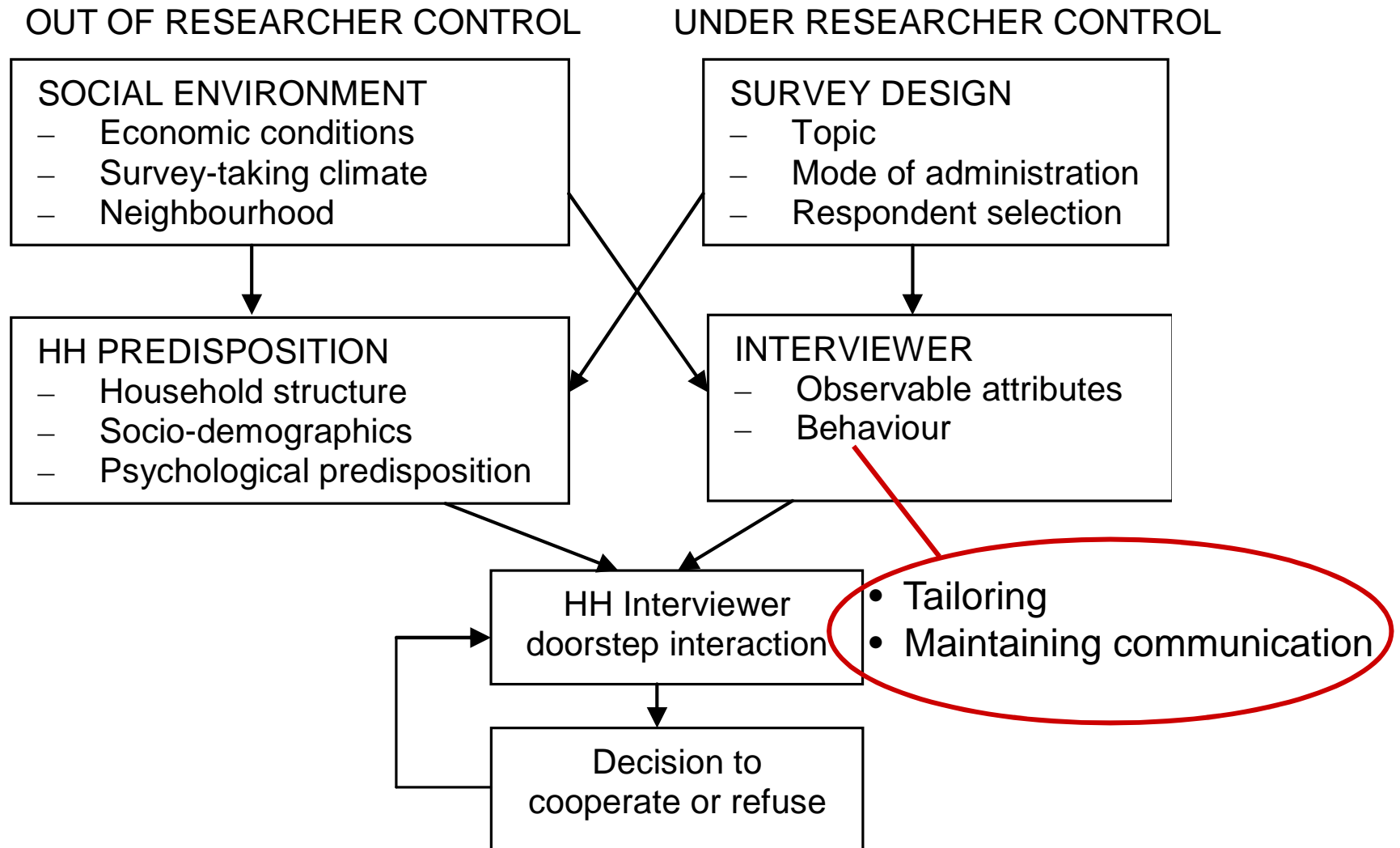
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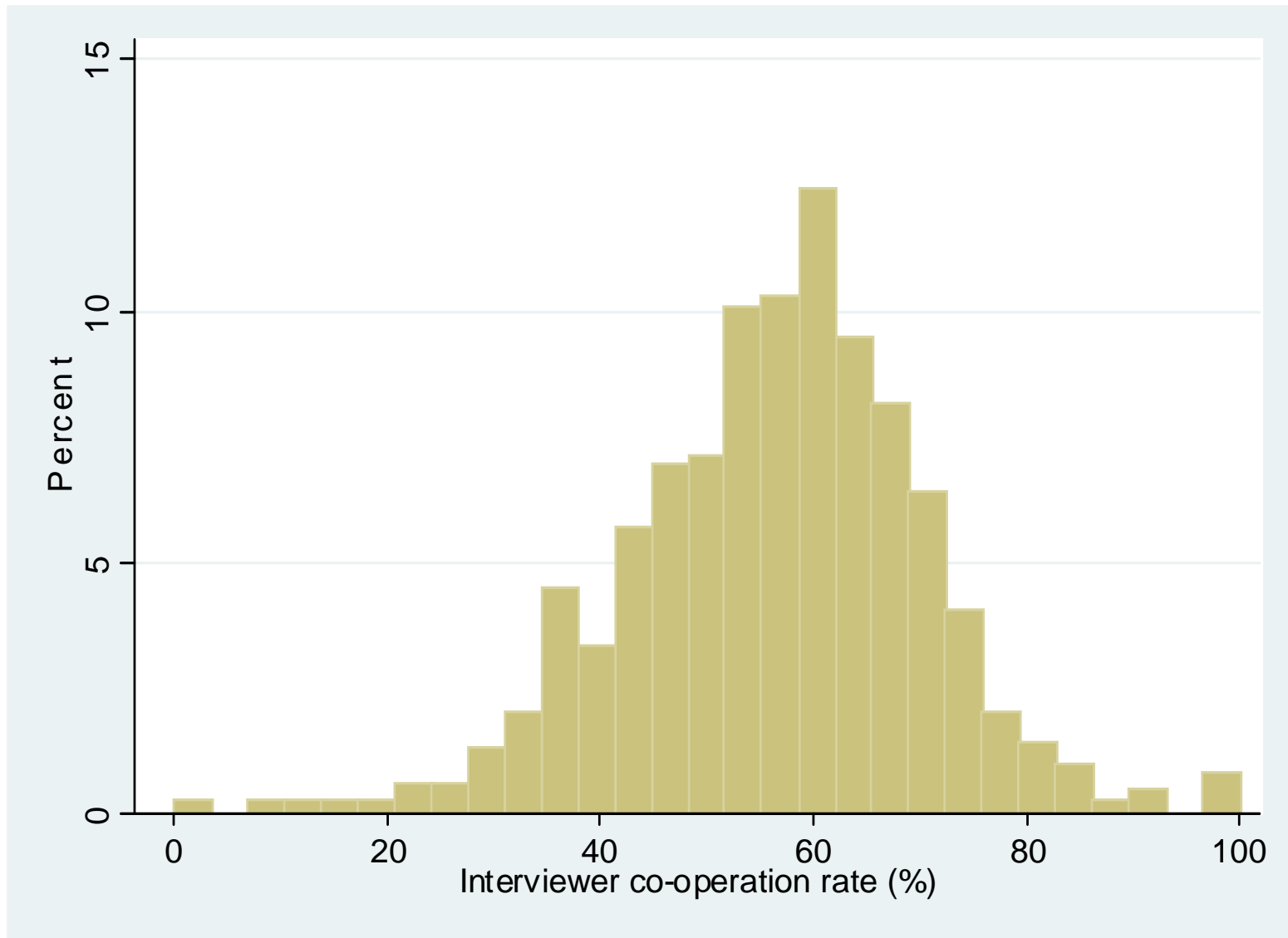
# Outline

- Key question
- Hypotheses
- Data
  - Call records
  - Interviewer survey and administrative records
  - Census area characteristics
- Results
  - Variation between interviewers
  - Associations with co-operation
  - Mechanisms: gender and experience
- Summary and open issues

# Determinants of co-operation



# Variation between interviewers in co-operation rates



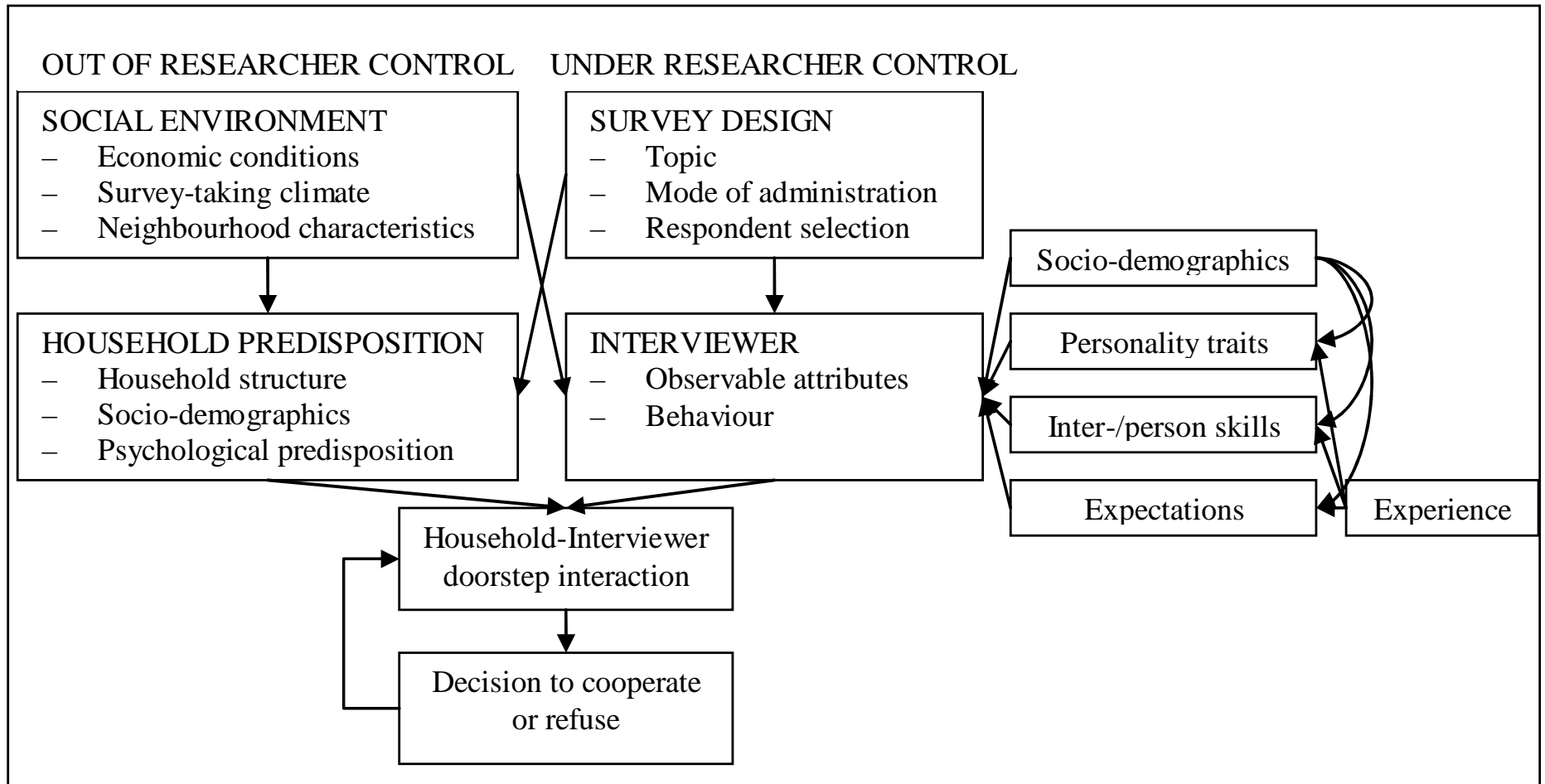
## Key questions

- Which interviewers are more successful?
- Can we identify factors that could be useful in recruitment and training?

## Previous studies

- Correlation of socio-demographic I characteristics with response
  - Experience
  - Attitudes towards persuading respondents
- Doorstep interaction & tailoring skills
  - Experiment
  - Measurement
- Problems:
  - Small N
  - Little variation in measured doorstep behaviour
  - Homogeneous interviewers?

# Hypotheses



# Data

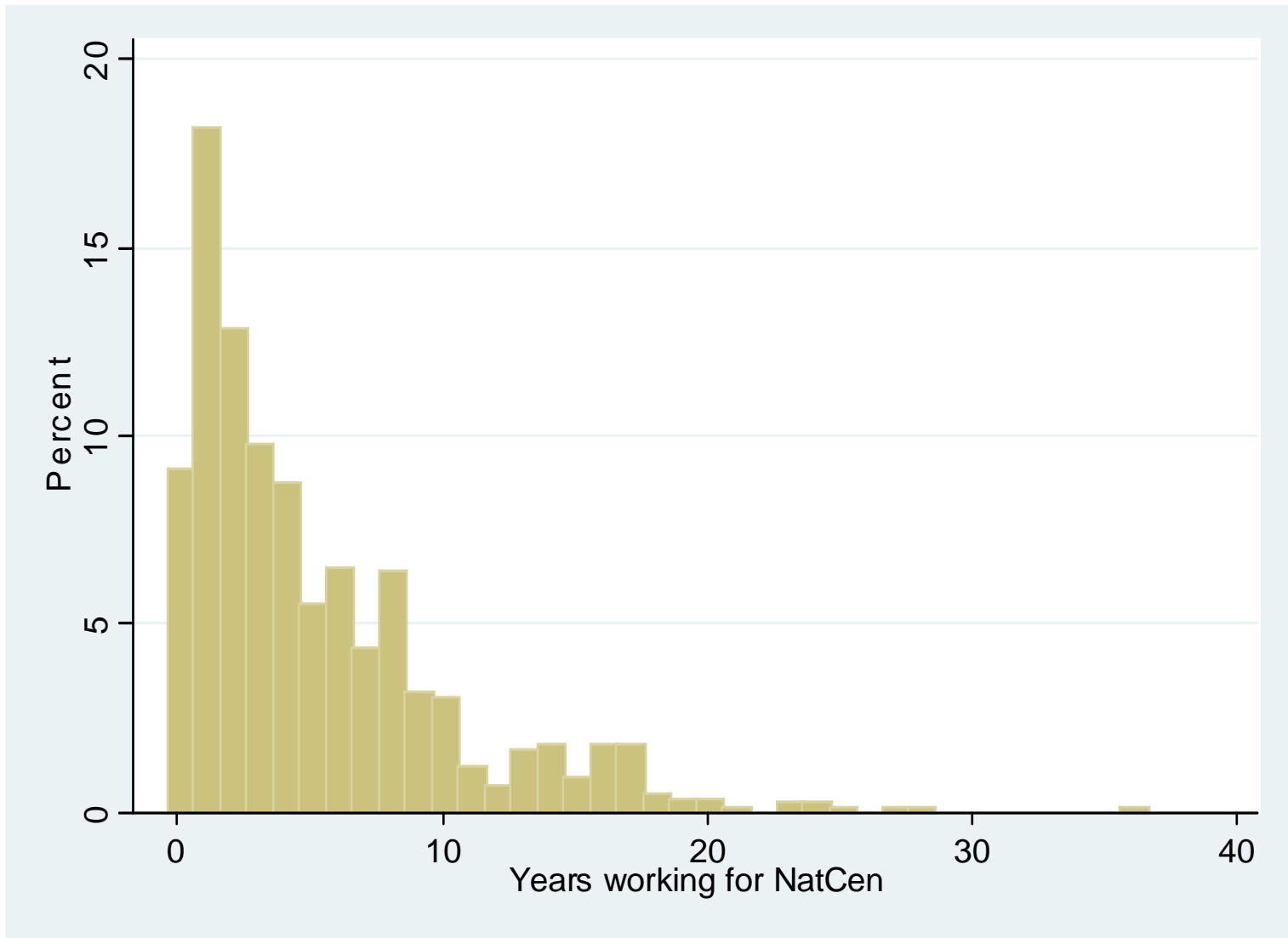
- All face-to-face surveys conducted by NatCen, Dec 2007 – Dec 2008
  - Social surveys
  - Same address based sampling frame
  - Exclude pilots, pretests, waves 2+ of panels
  - Population of inference: GB interviewers
- CAPI Menu System:
  - Timing and outcome of all calls to sample units
  - Sample: cases contacted during 1<sup>st</sup> issue
  - Dependent variable: 1 if co-operation, 0 if not

# Data

- NatCen administrative records
  - Sex, age, years working for NatCen, ...
- Postal interviewer survey
  - Characteristics related to contacting and co-operation behaviour
- 2001 Census area characteristics
  - Socio-demographic composition of area potentially related to co-operation
- Controls for survey project
- Analysis sample:
  - 108,314 sample units, 845 interviewers, 14 projects

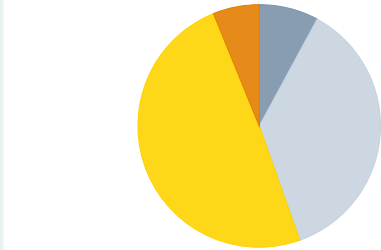
1. Interviewers are *not* homogeneous

# Experience

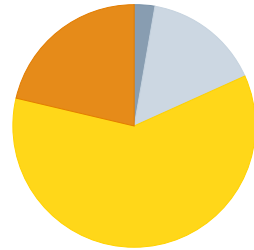


# Attitudes towards persuading respondents

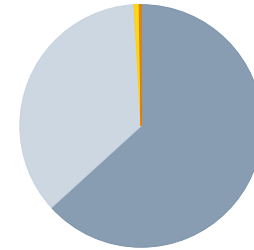
Reluctant should be persuaded



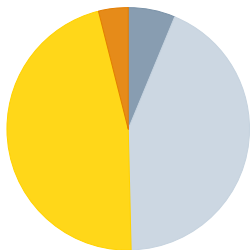
All Rs can be persuaded



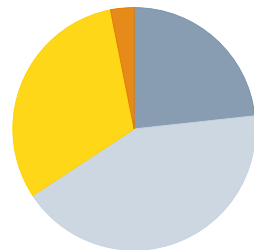
Should respect privacy



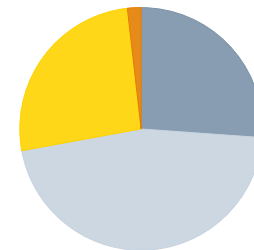
Should accept refusal



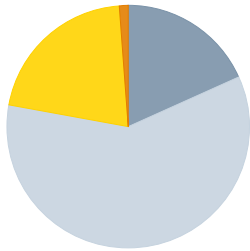
Emphasize voluntary nature



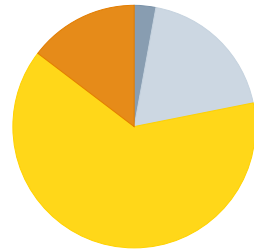
No repeated contacts



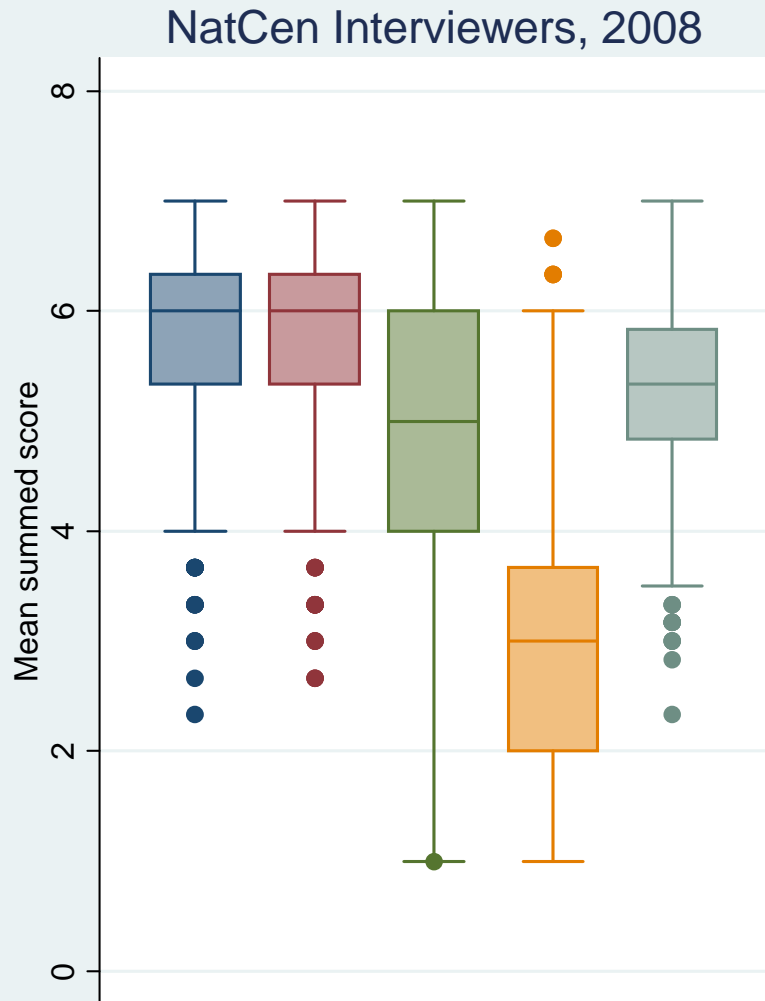
Most will agree if right time



Reluctant bad data

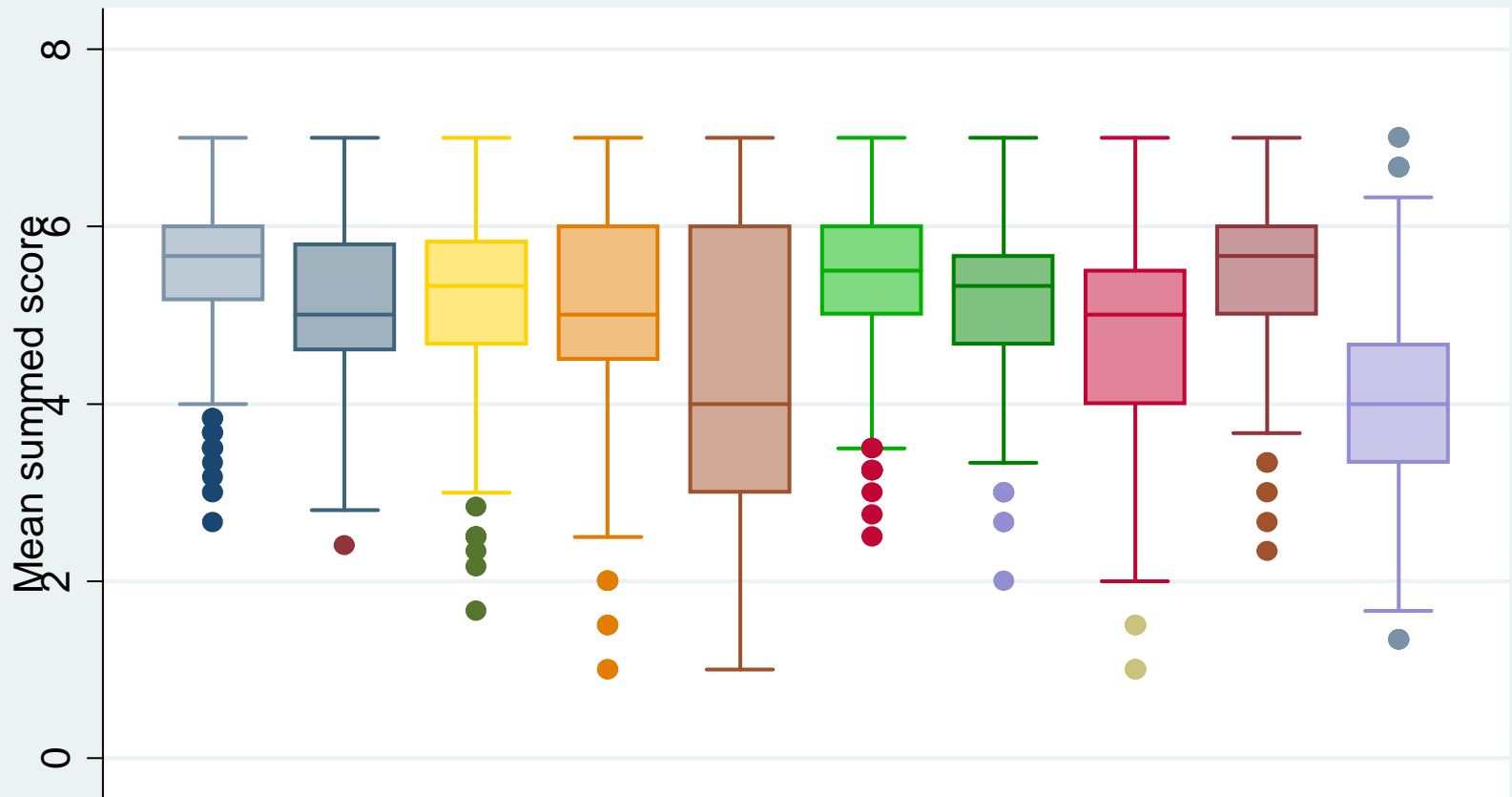


# Personality traits



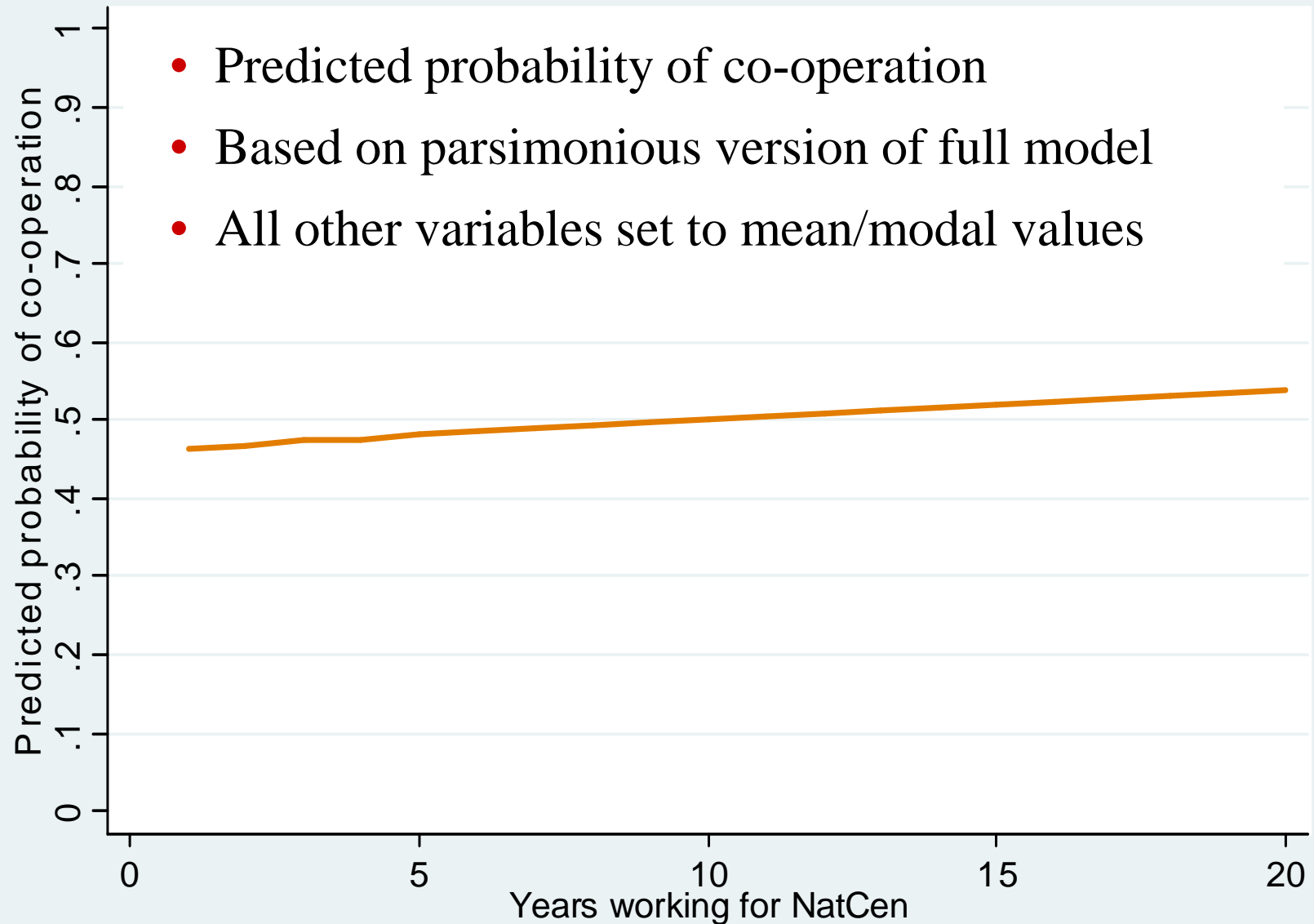
Agreeableness Conscientiousness Extroversion Neuroticism Openness

# Personal skills



## 2. Interviewer characteristics & co-operation

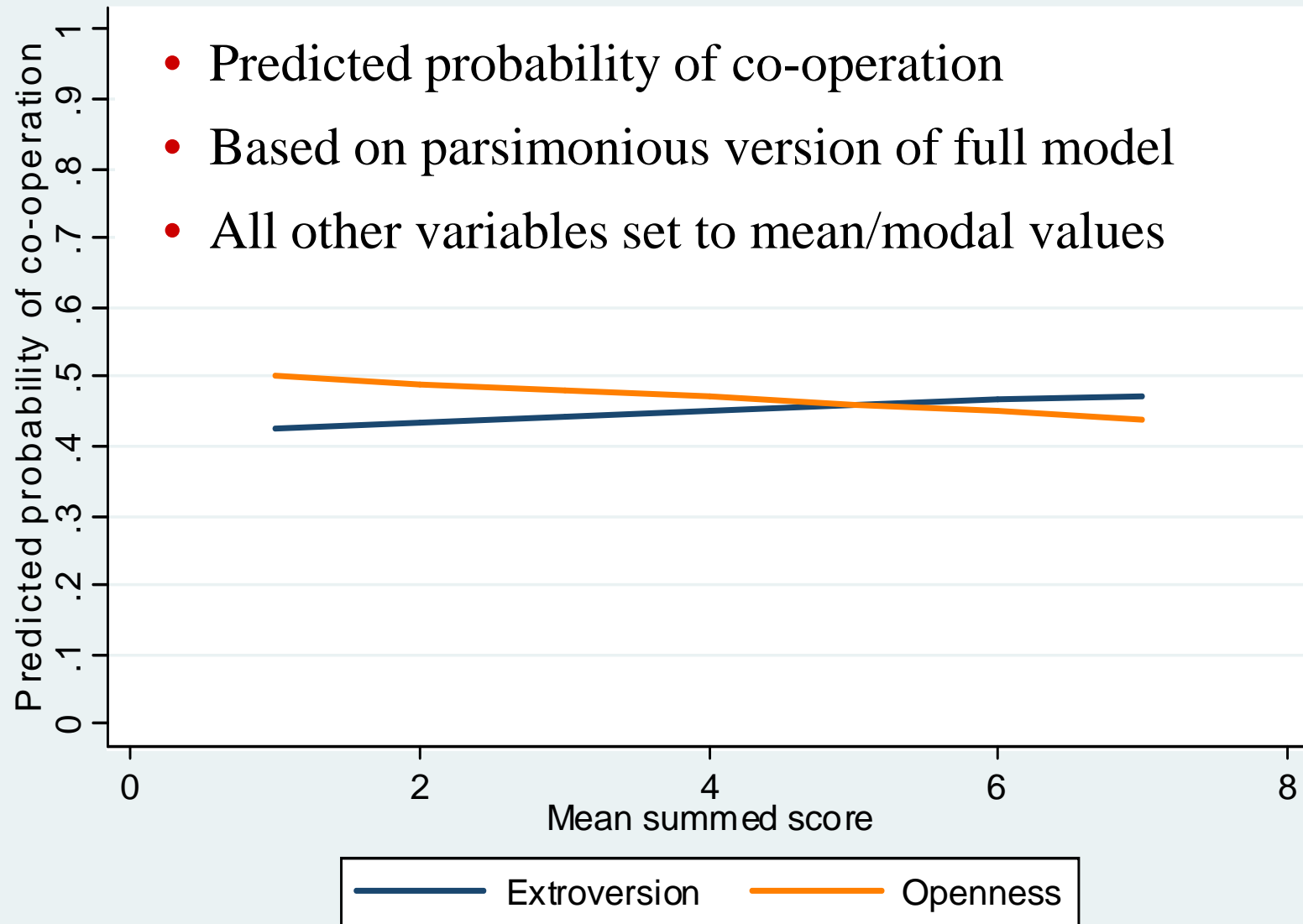
## Experience & co-operation



# Attitudes & co-operation

- **Bivariate:**
  - Expected associations for four items:
    - All can be persuaded (+)
    - Respect privacy (-)
    - Accept refusal (-)
    - Reluctant respondents provide bad data (-)
  - Other 4 n.s. or inconsistent
- **Multivariate:**
  - Mostly n.s.

# Personality traits & co-operation



## Skills & co-operation

- Bivariate:
  - Some associations in expected direction
- Multivariate:
  - Only assertiveness – but opposite direction

### 3. Mechanisms through which gender and experience of interviewer are related to co-operation?

- Are differences in co-operation rates between
  - Female and male Is,
  - More and less experienced Is
- Due to differences in attitudes, traits or skills?

# Differences between male & female interviewers

- Co-operation rates:
  - Male: 55.7%, Female: 60.2%, (P=0.000)
- Due to differences in characteristics?
- Decompose differences in mean predicted co-operation rates between 2 groups into
  - Differences in characteristics and
  - Behaviours (coefficients and residuals)
  - See Even & Macpherson (1993) Journal of Human Resources

# Differences between male & female interviewers

- Simulation:
  - RE logit, probability of co-operation
  - Full model: attitudes, experience, traits, skills + controls
  - Separate model for male and female interviewers
  - Predicted co-operation rates, at mean/modal values
- Predicted co-operation rates:
  - Male ( $X_m, \beta_m$ ): 24%
  - Female ( $X_f, \beta_f$ ): 41%
  - Female model with male characteristics ( $X_m, \beta_f$ ): 26%
  - ⇒ 15% points explained by differences in characteristics
  - Which characteristics are most important?

## Differences between male & female interviewers

- Which characteristics are most important?
- Total difference due to characteristics:

$$EXP = P(X_M, \hat{\beta}_F) - P(X_F, \hat{\beta}_F)$$

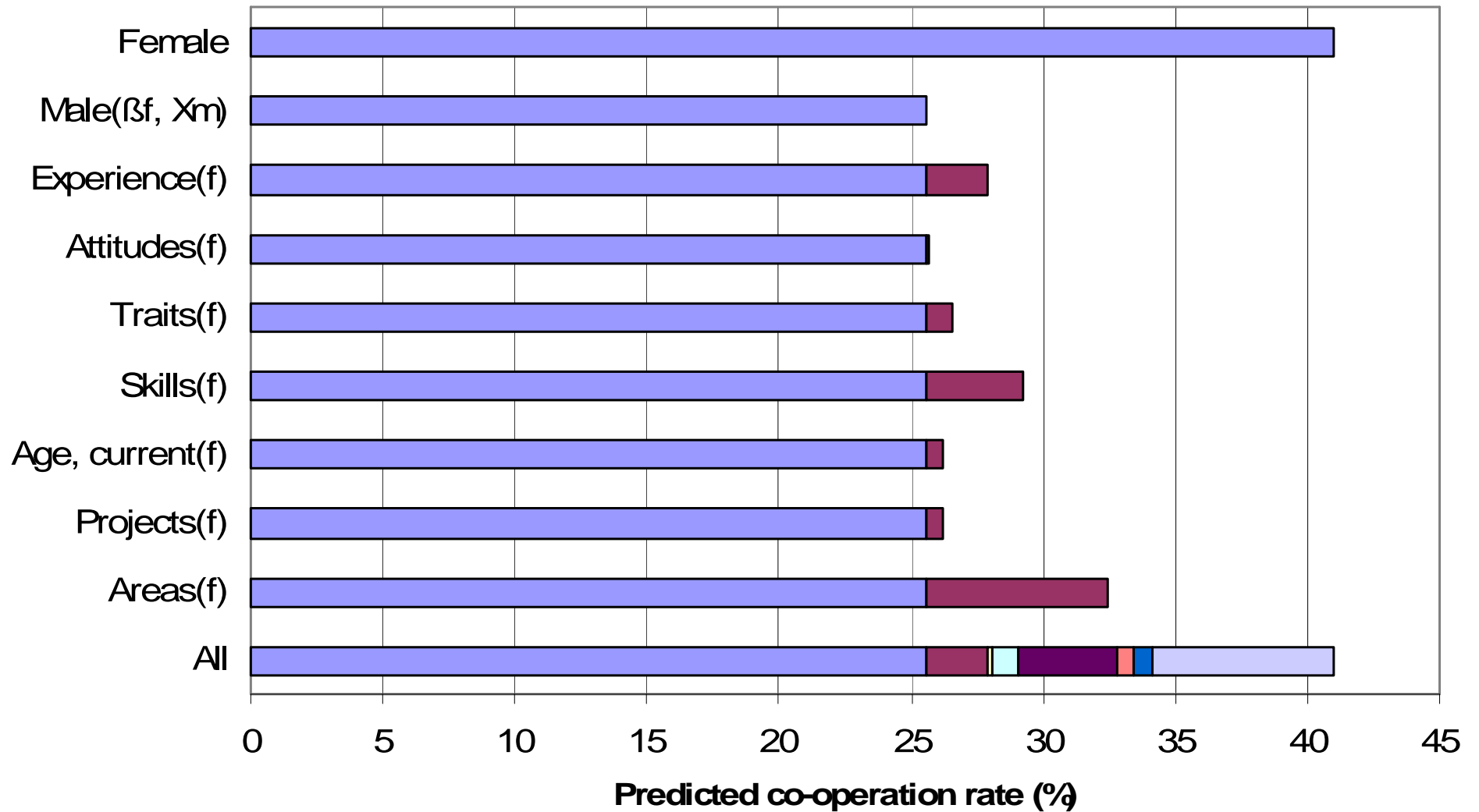
- Difference due to individual characteristic  $r$ :

$$EXP_r = \left[ P(X_M, \hat{\beta}_F) - P(X_F, \hat{\beta}_F) \right] \left[ \frac{(\bar{X}_{Mr} - \bar{X}_{Fr}) \hat{\beta}_{Fr}}{(\bar{X}_M - \bar{X}_F) \hat{\beta}_F} \right]$$

weight for  $\Delta$  in distribution of  $r^{\text{th}}$  variable

Even, W.E. and Macpherson, D.A. (1993) The Decline of Private-Sector Unionism and the Gender Wage Gap, *The Journal of Human Resources*, 28(2):279-296.

# Differences between male and female interviewers



## Differences between more and less experienced Is

- <2 yrs vs. 7+ yrs
- Co-operation rates:
  - Low experience: 55.4%, High experience: 61.4%, (P=0.000)
- Due to differences in characteristics?

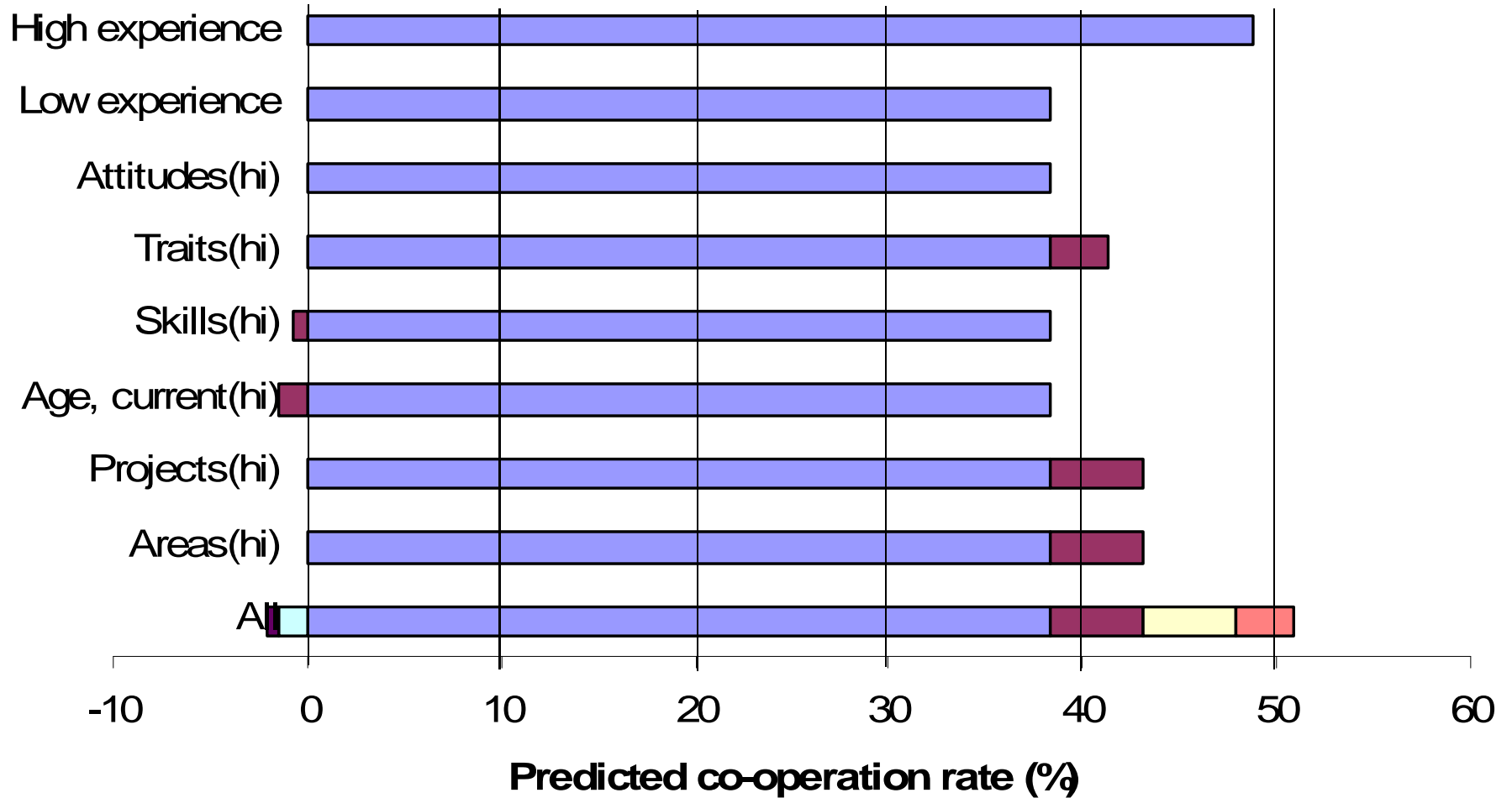
# Differences between more and less experienced Is

- Simulation:
  - RE logit, probability of co-operation
  - Full model: attitudes, experience, traits, skills + controls
  - Separate model for more and less experienced Is
  - Predicted co-operation rates, at mean/modal values
- Predicted co-operation rates:
  - Low experience ( $X_{low}$ ,  $\beta_{low}$ ): 20.7%
  - High experience ( $X_{hi}$ ,  $\beta_{hi}$ ): 48.8%
  - High experience model with low experience characteristics ( $X_{low}$ ,  $\beta_{hi}$ ): 38.3%

⇒ 10% points explained by differences in characteristics

  - Which characteristics are most important?
  - But 18% points not explained by characteristics

# Difference between more and less experienced Is



# Summary

- Interviewers are heterogeneous
- Bivariate associations with co-operation
  - Significant – but not always in expected direction
- Few main effects of I characteristics on cooperation in multivariate tests:
  - Experience – but small effect
  - Attitudes – mostly n.s.
  - Traits – few and small effects; some in opposite direction
  - Skills – few and small effects

# Summary

- Differences between female and male Is:
  - 88% of gap explained by characteristics
  - Area assignment
  - Skills, experience & traits
- Difference between experience levels:
  - Only 36% of gap explained by characteristics
  - Mainly project and area assignment
  - Traits
  - Skills: opposite effect than expected learning

# Open issues

- Interactions rather than main effects?
  - E.g. Different mechanisms for more and less experienced interviewers?
- Measurement of skills
- Accounting for hierarchical structure of interviewers, surveys and areas
  - Variation between Is mainly due to project and area assignments, rather than I characteristics?
- Implications for interviewer evaluation and pay?