

Certification Tests as an Indicator of Interviewer Productivity in the 2010 SIPP-EHC

Rachael Walsh, PhD Longitudinal Research, Evaluation, and Outreach Branch
Social, Economic, and Housing Statistics Division

Presented at the Annual Meeting of the
Population Association of America
Washington, DC
March 31 to April 2, 2011

Objectives

- Assess certification exam effectiveness in predicting interviewer outcomes as follows:

- Non-response rates
- Interview length (time required to complete interview)

- Form recommendations with respect to revising the certification test

- Current certification test is given after completion of training, prior to entering the field to administer the survey
- Test includes:
 - Measures of subject matter comprehension
 - Probing scenarios
 - Locating and persuasion techniques

Data

- 2010 Survey of Income and Program Participation—Event History Calendar (SIPP-EHC)

- Re-engineered SIPP
- Mode: Computer Assisted Personal Interview (CAPI)
- Sample:

- low income stratum
- Regionally restricted
- 7,982 households
- 14,701 individuals
- 307 interviewers

- All data is aggregated at the INTERVIEWER LEVEL

- Total # possible respondents = total # of individuals entered on all household rosters for each interviewer
- Only households where at least one interview was obtained remained in the sample (N=5,156 households and 14,071 individuals, of which 11,053 are adults)

Analytical Variables

- Outcomes of Interest at the Interviewer Level:

- Average Length of Adult Interview (total length of all interviews/total # adults interviewed)
 - 85% of sampled households contained more adults than children
- Person Non-Response (total # non-respondents/total # possible respondents)

- Test Score (ranged from 36% to 98%)

- Region (entered as control)

- Household Size (average per interviewer)

- Central City (dichotomous; 1 indicates > 95% of cases were in central city)

- Program Participation (dichotomous; 1 indicates >15% of cases participated in at least one social welfare program)

- Interviewer Tenure

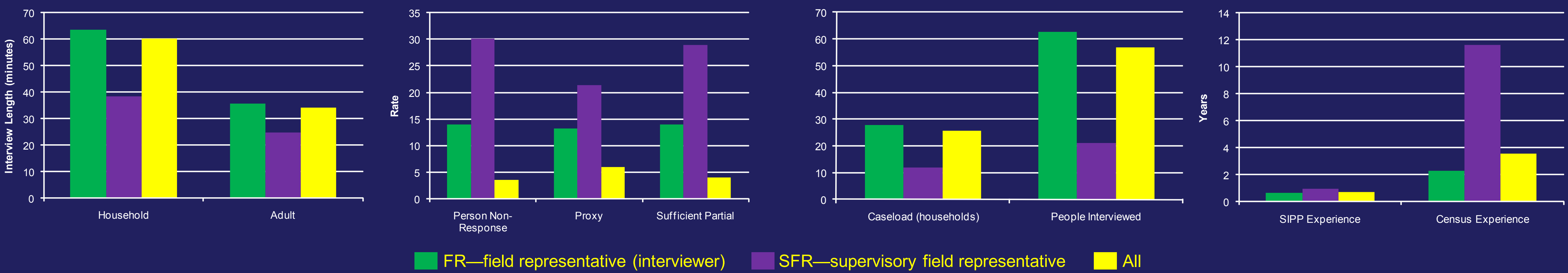
- SIPP experience (dichotomous)
- Length of Census experience (<1 year, 1 to 5 years, >5 years)
- Supervisory interviewer status (dichotomous)

- Interviewer Productivity

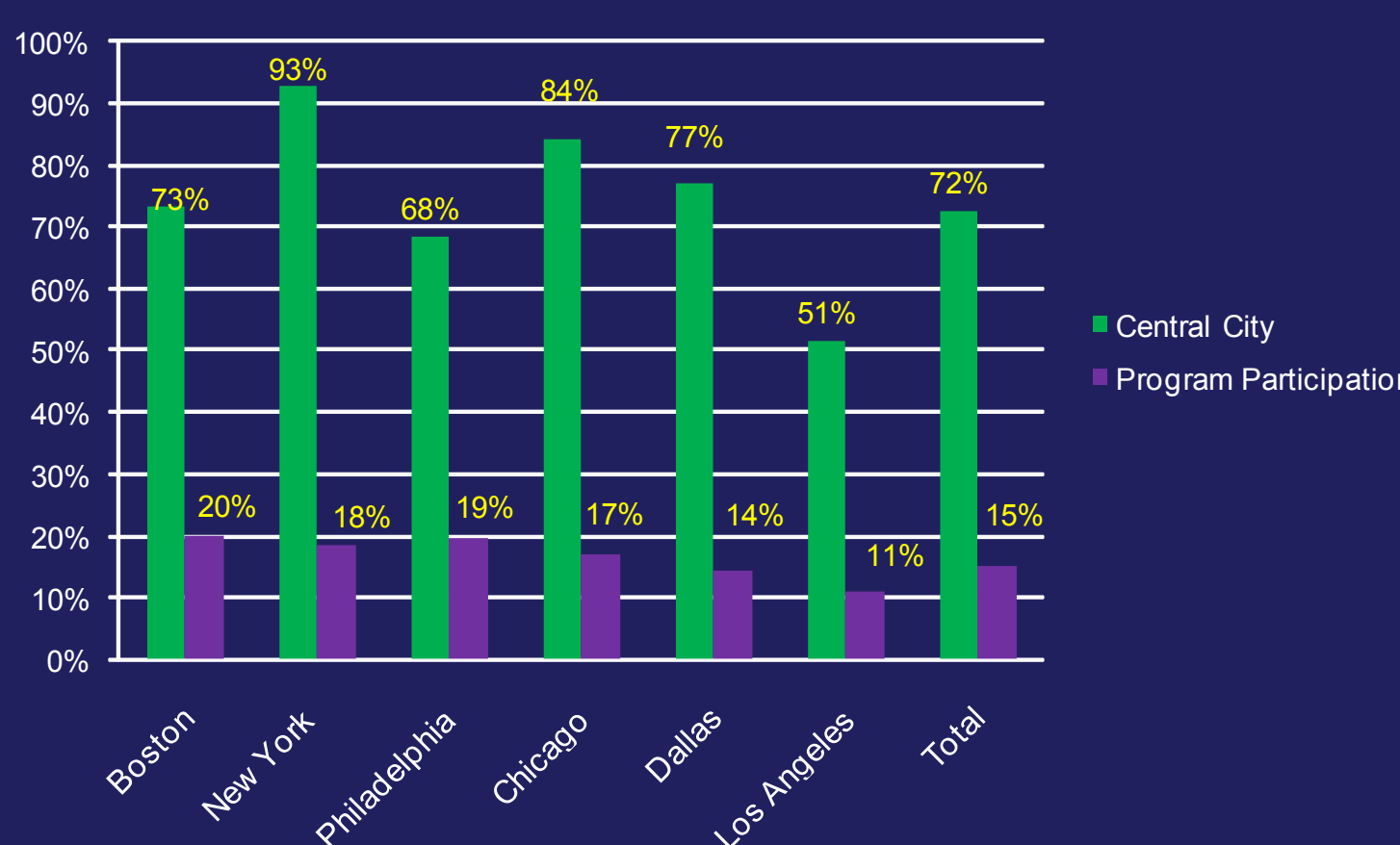
- Caseload (# of assigned households)
- Non-response rate (total # non-respondents/total # possible respondents)
- Proxy rate (total # proxy interviews/total # possible respondents)
- Sufficient partial rate (total # respondents completing the EHC/total # possible respondents)

- All variables are aggregated at the interviewer level at least one

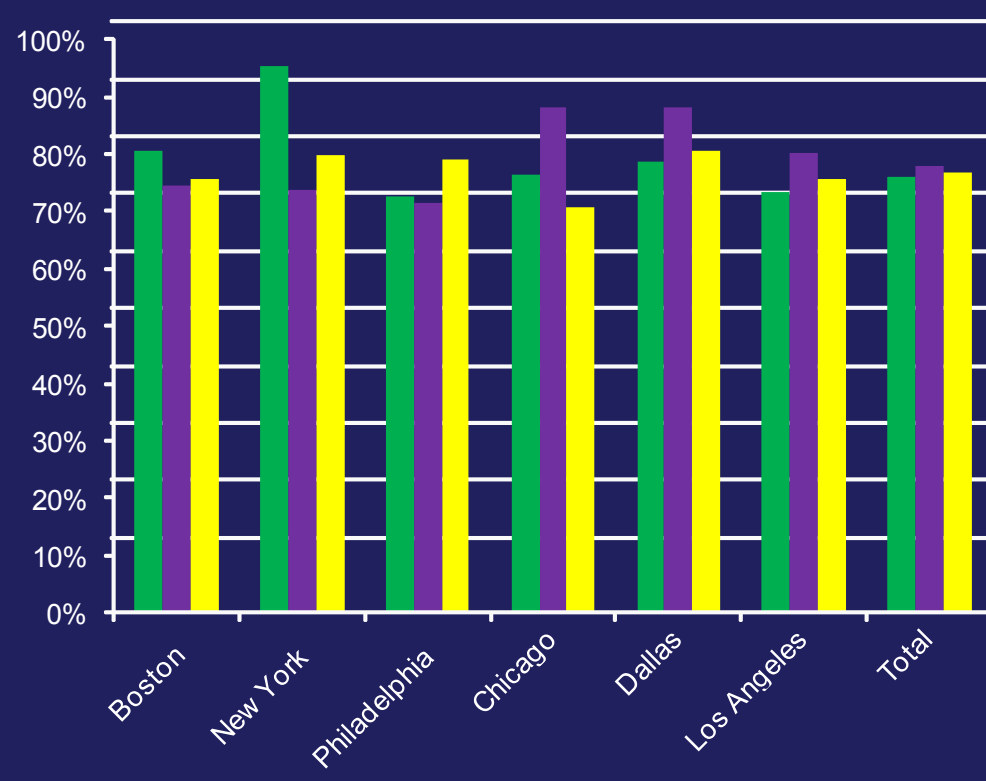
Descriptive Statistics



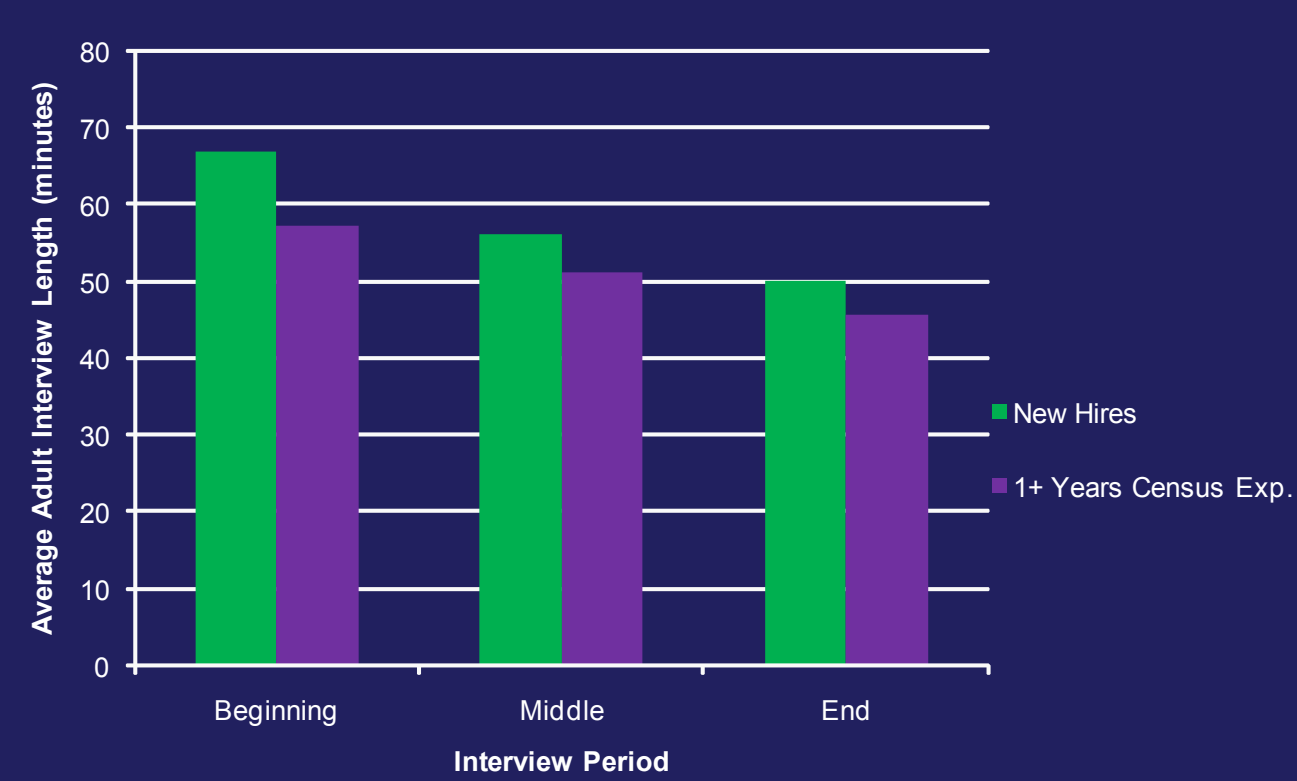
Sample Urbanicity & Program Participation by Region



Certification Test Scores by Region



Learning Curve by Level of Experience



Note: Interview period began in January 2010 and ended in March 2010

Regression Outcomes: Adult Interview Length

Statistically Significant Variables	Interview Length
> 5 years Census Experience	↓ 8 to 9 minutes
Each additional person	↑ 12 minutes
Program participation	↑ 7 minutes

p-value < 0.05

- Exam Scores:

- In presence of scores, program participation becomes significant
- Mediates for effect of proxy and sufficient partial rates
- Explains additional 3.7% of variability

- No Effect:

- SIPP experience
- Supervisory status
- Interviewer Productivity
- Central city (1 Region had significantly longer interviews)

- Model explains 35% of variability in interview length

Regression Outcome: Non-Response Rate

Statistically Significant Variables	Non-Response Rate
Proxy Interviews	↓ 0.477
Sufficient Partial Interviews	↑ 0.988
Each additional person	↑ 0.057
Each additional point on exam	↑ 0.003

p-value < 0.05

- Exam score:

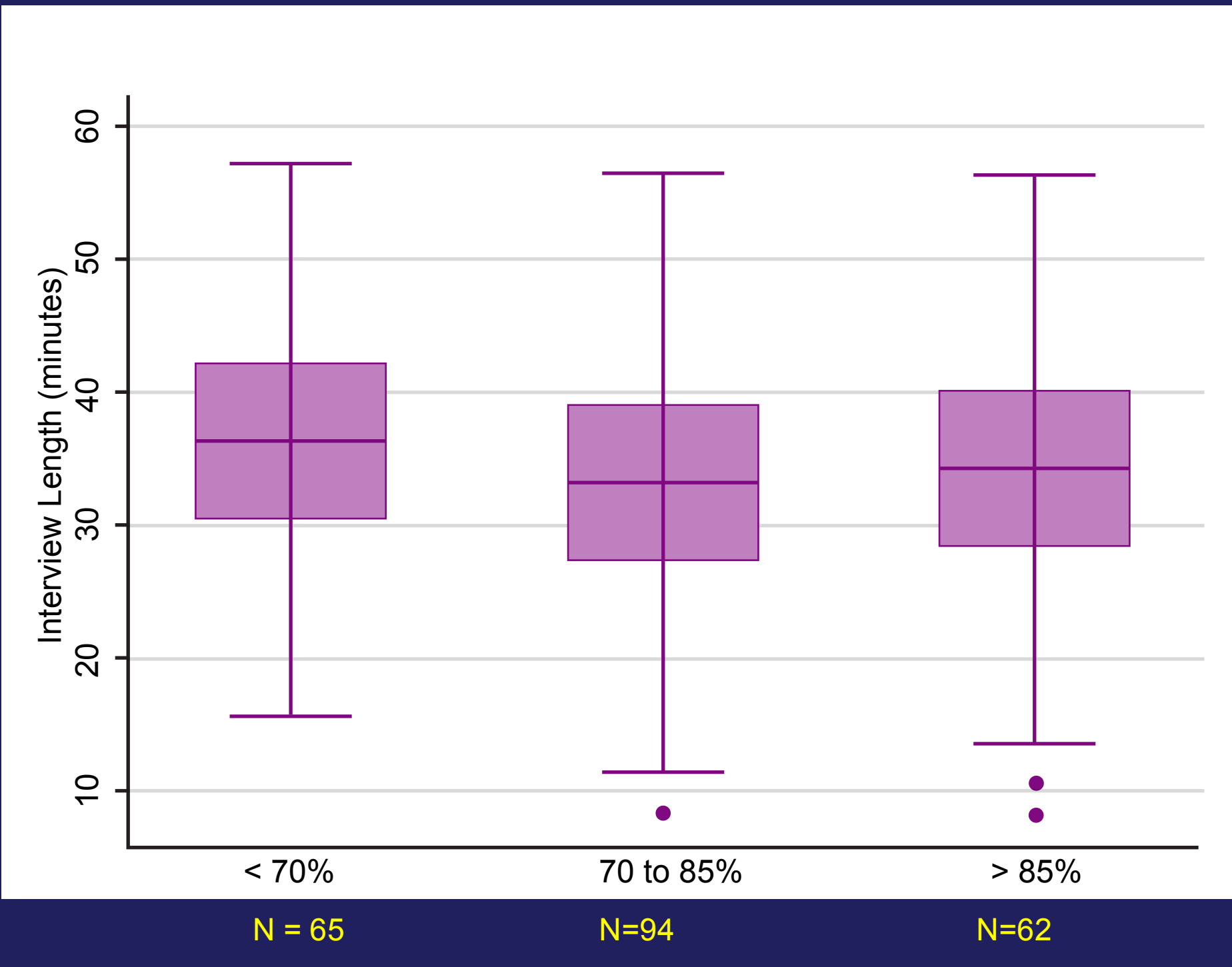
- In the presence of exam scores, household size is significant
- mediates for effect of supervisory interviewer status
- explains an additional 10% of variability

- No Effect:

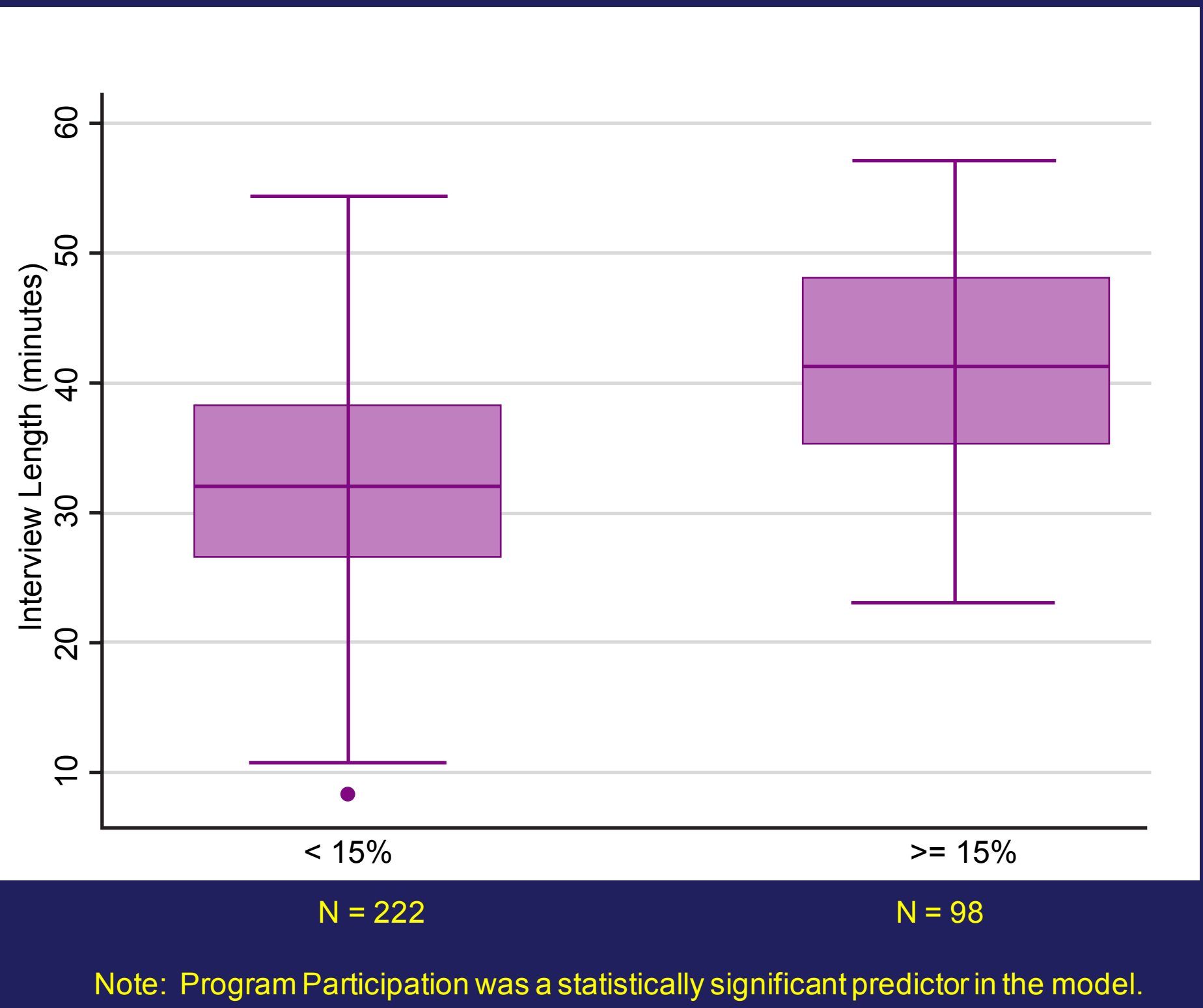
- SIPP Experience
- Caseload
- Interview Length
- Census Experience
- Region
- Program Participation

- Model explains 42.4% of variability in non-response

Predicted Interview Length by Certification Test Score



Predicted Interview Length by Program Participation Rate



Conclusions

- Test scores had a non-significant but mediating effect on interview length.
- Test scores have a significant effect on non-response rates, explaining 7.5% of an interviewer's overall non-response rate.
- In combined model, test scores can explain 13.7% of variability in interviewer productivity.
- Further research is needed to analyze the underlying mechanisms of how certification test scores influence interviewer productivity.

Directions for Future Research

- Duplication with 2011 Certification Test
- Addition of interviewer demographic characteristics
- Incorporate components of training
- HLM analysis assessing interviewer effect
 - Individuals nested within households nested within interviewers
 - Data not yet available