



Adaptive Design for the New National Teacher and Principal Survey

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Disclaimer

- This presentation is intended to promote ideas. The views expressed are part of ongoing research and do not necessarily reflect the position of Westat or the U.S. Department of Education.

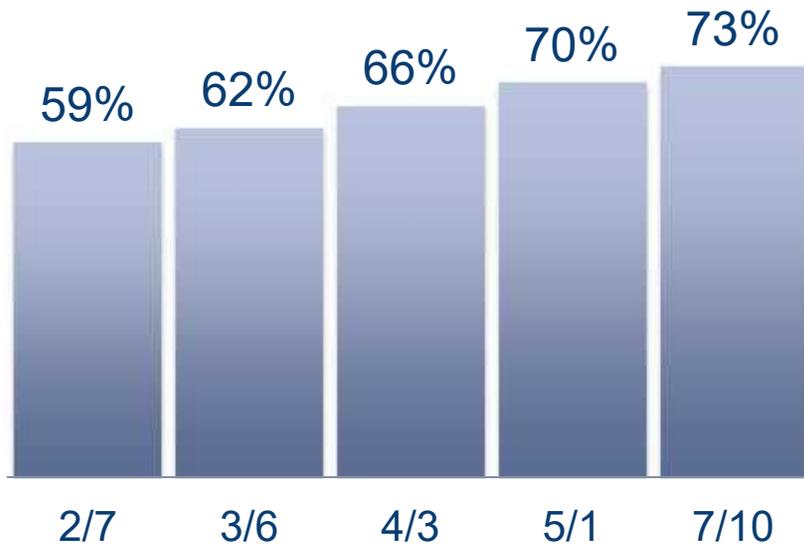
National Teacher and Principal Survey (NTPS)

- Starts in school year 2015-16
- Redesign of Schools and Staffing Survey (SASS)

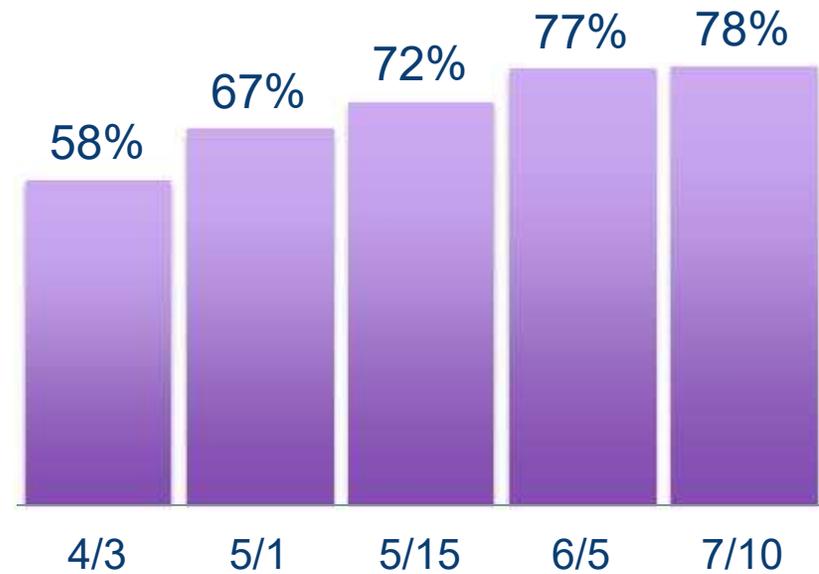
	SASS	NTPS
Cycle	Every four years	Every two years
Estimating	National and state	National
Samples	School districts Public/private schools Public/private school principals Public/private school teachers Public school libraries	Public schools Public school principals Public school teachers

SASS Response Rates by Date

Principals



Teachers



Goals for NTPS

- Data collection every two years.
- Faster release of data.
- Integration with other ED collections.
- Reduce response burden.

NTPS Adaptive Design Approach

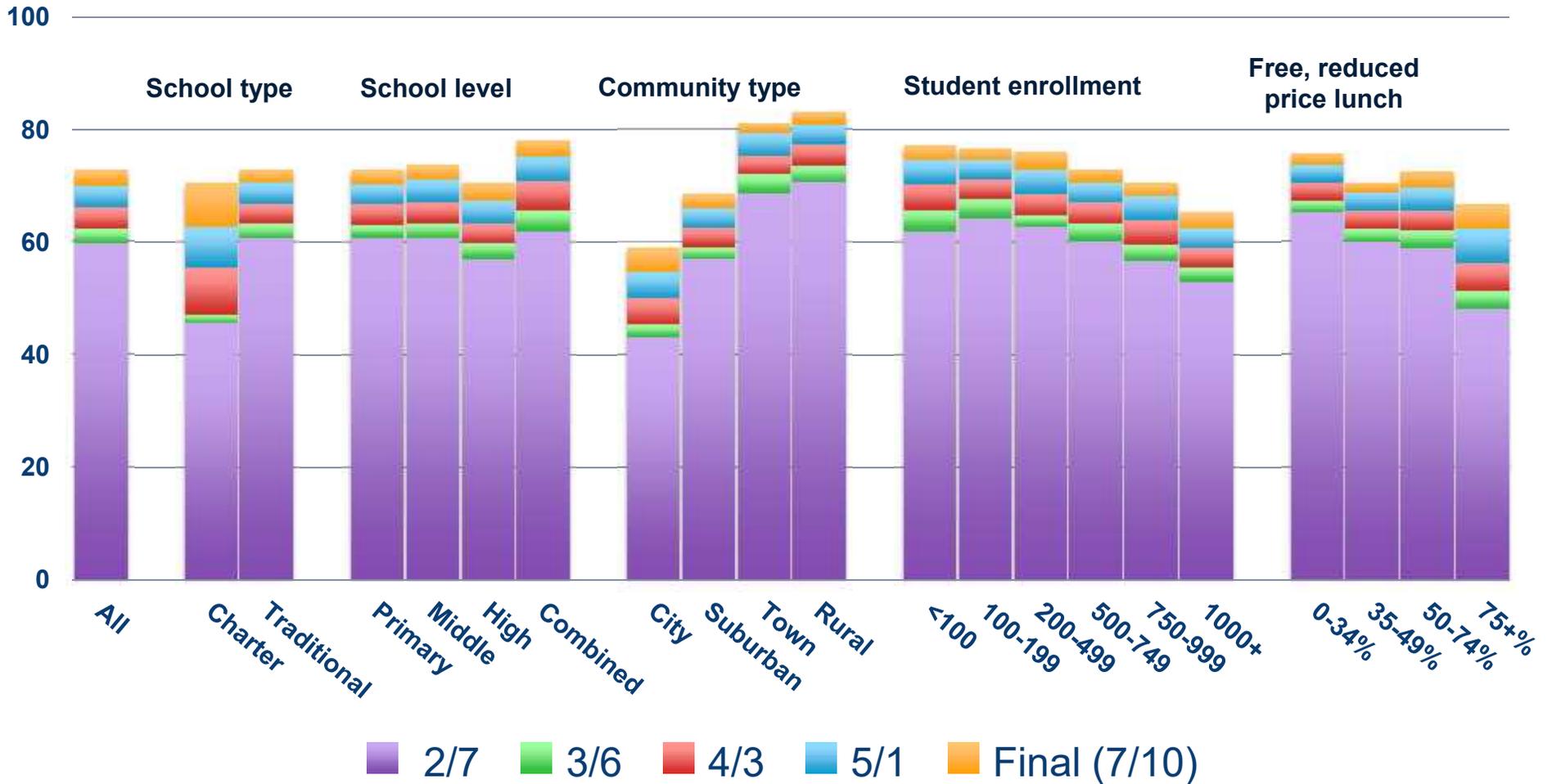
- Given a short field period, responsive design approach may not be realistic.
- Conflict between “Go the Hard Road” vs. “Pick the Low Hanging Fruit”

“Go the Hard Road”	“Pick the Low Hanging Fruit”
Groves (2006) Groves & Peytcheva (2008) Schouten et al (2009) Schouten et al (2011) Särndal and Lundström (2008)	Groves and Heeringa (2006)
Low-propensity cases	High-propensity cases
Reduce differences in response propensity	Maximize response rate

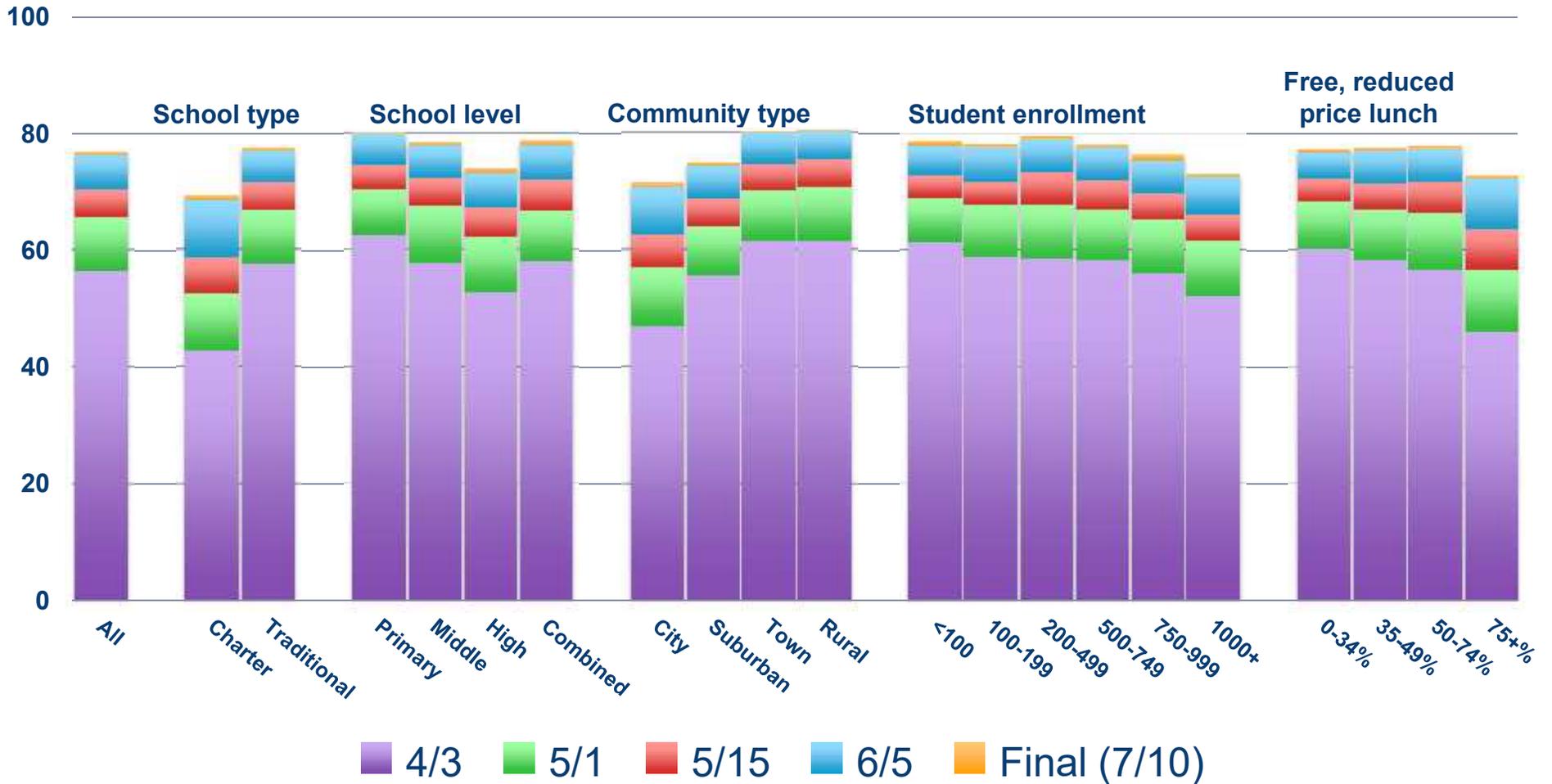
NTPS Adaptive Design Research Questions

- Can we publish in a more timely fashion by cutting off data collection early?
- What are the implications on estimates?
- Can we use paradata to identify methods that can reduce potential nonresponse bias?

SASS Principal Response Rates by Cutoff Dates



SASS Teacher Response Rates by Cutoff Dates

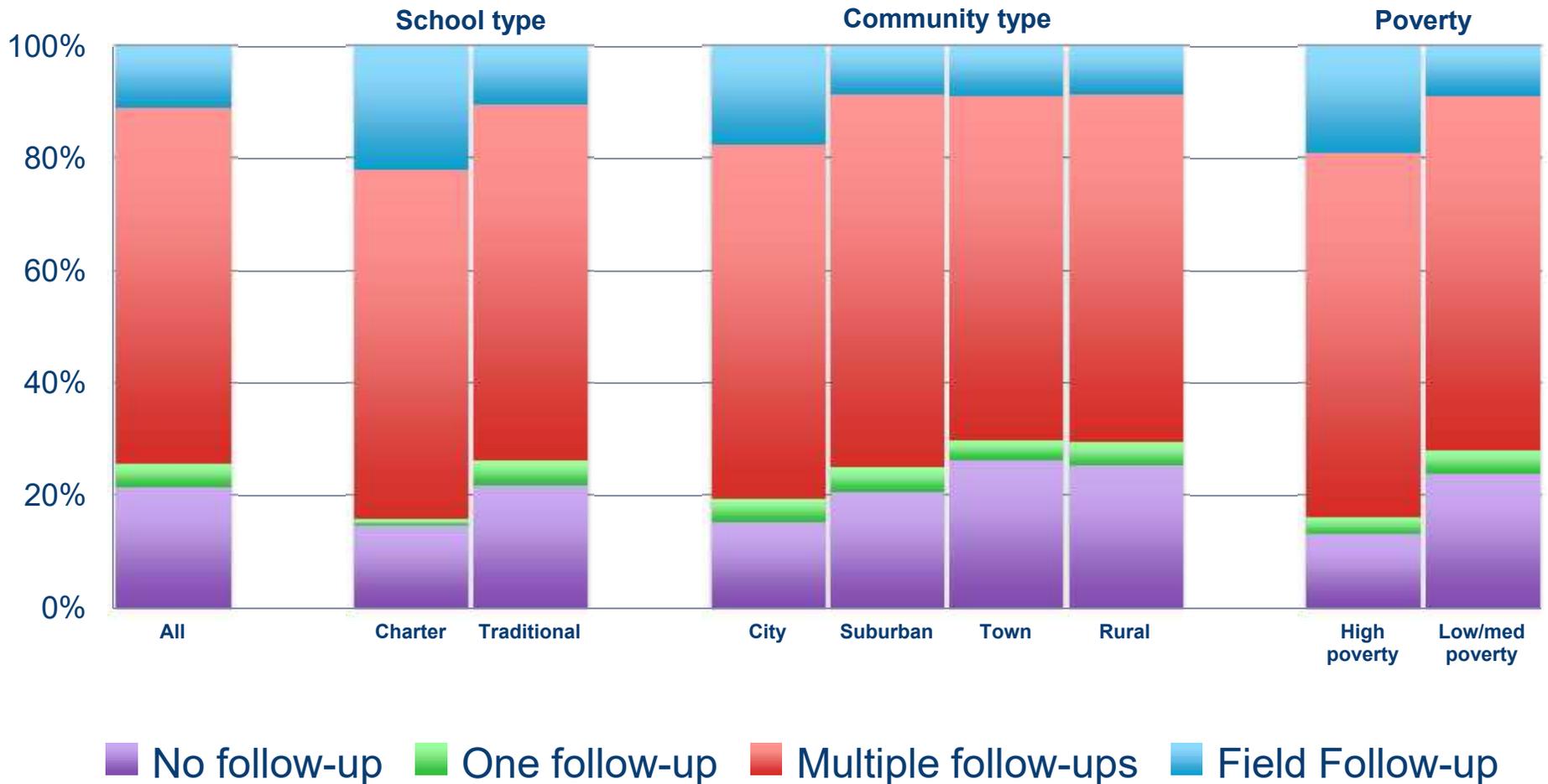


SASS Teacher Response Rates by Teacher Wave Group



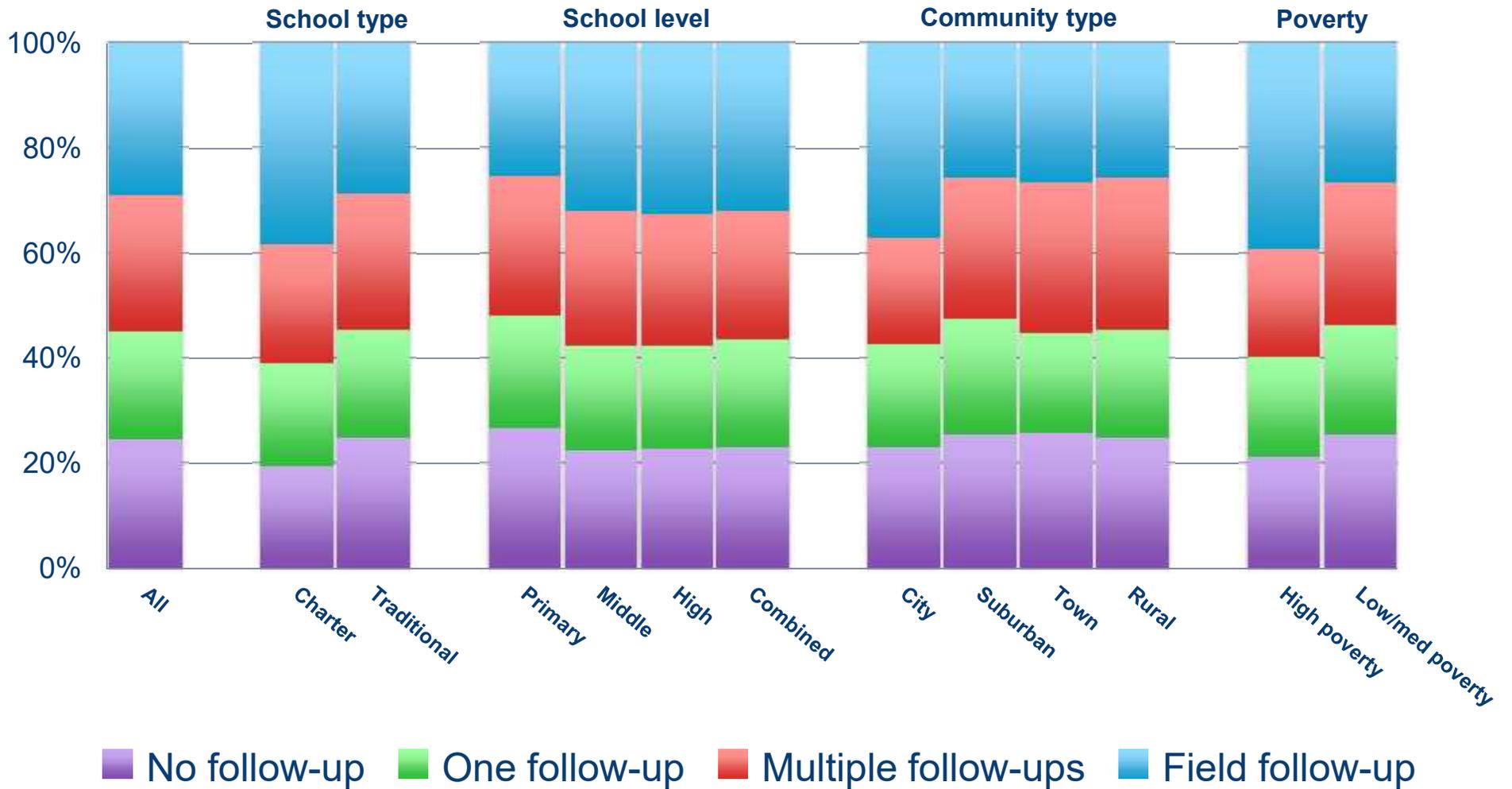
10 Significantly different ($p < 0.005$), Rao-Scott chi-square test

SASS Follow-up Effort for Principal Response



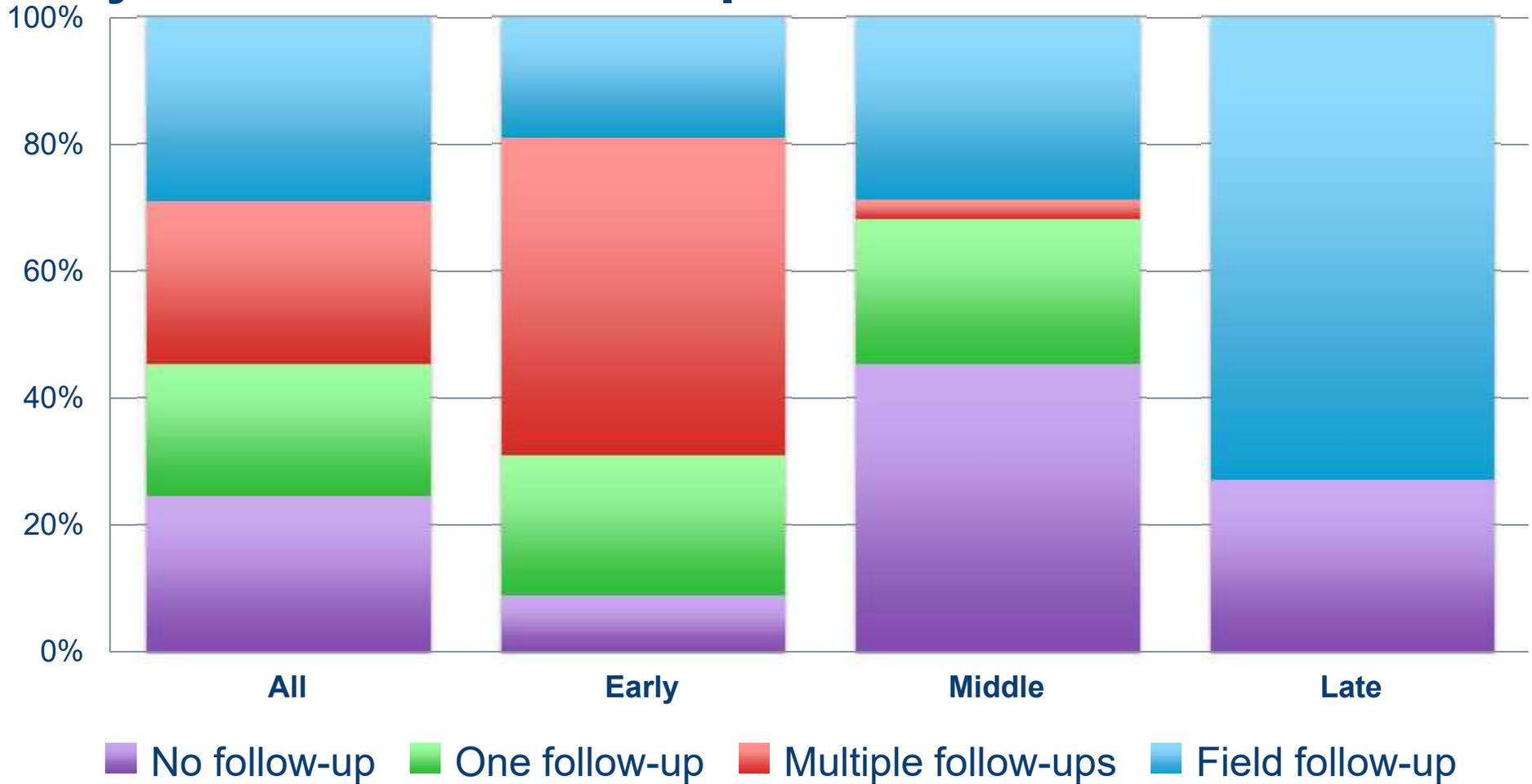
11 Significantly different (p<0.05), Rao-Scott chi-square test

SASS Follow-up Effort for Teacher Response



12 Significantly different ($p < 0.05$), Rao-Scott chi-square test

SASS Follow-up Effort for Teacher Response by Teacher Wave Group



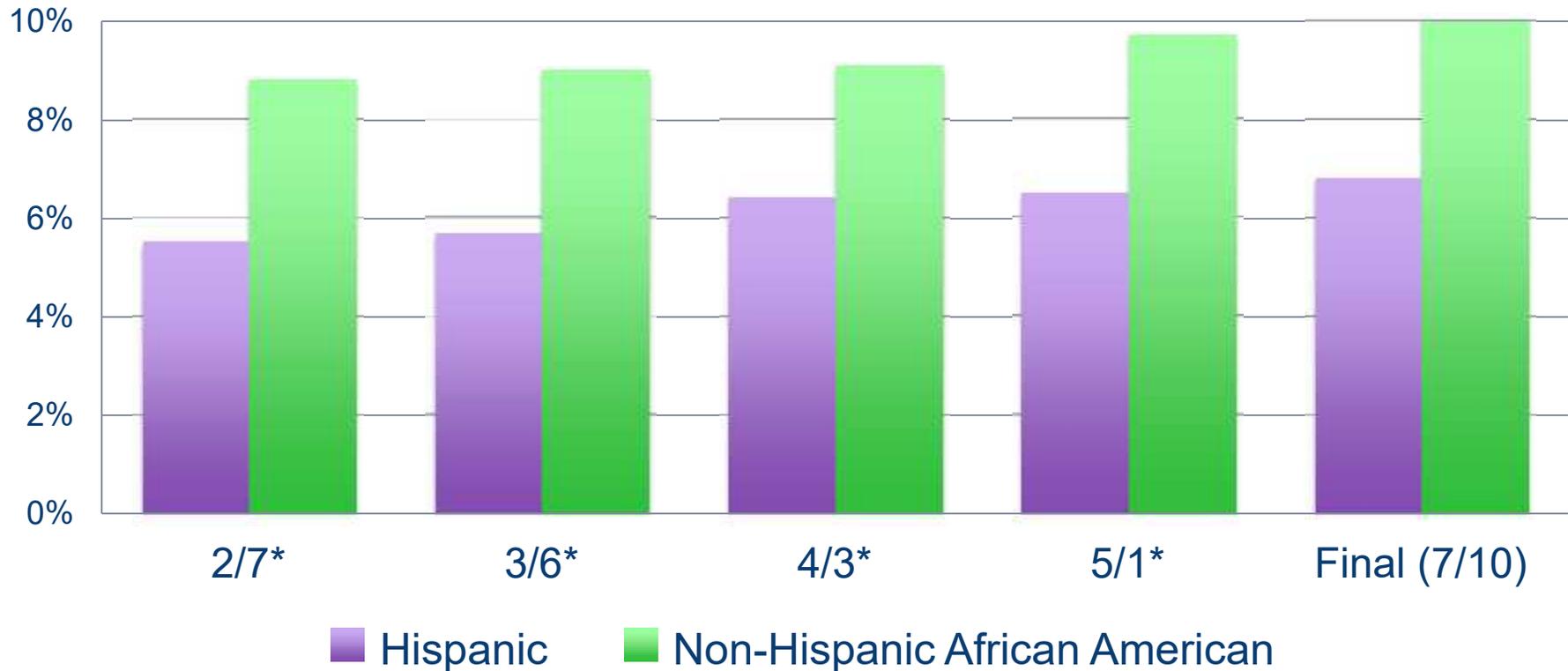
13 Significantly different ($p < 0.05$), Rao-Scott chi-square test

SASS Counterfactual Scenarios with Early Cutoff

- Create 8 data sets, 4 for principals, 4 for teachers, using different cutoff dates for the field period.
- Reproduce initial public release tables from each data set.
- Compare estimates to the final estimates
 - Do some of the interim data sets produce similar estimates to the final data set?
 - Ideally identify a response level at which similar results are achieved, but earlier time frame

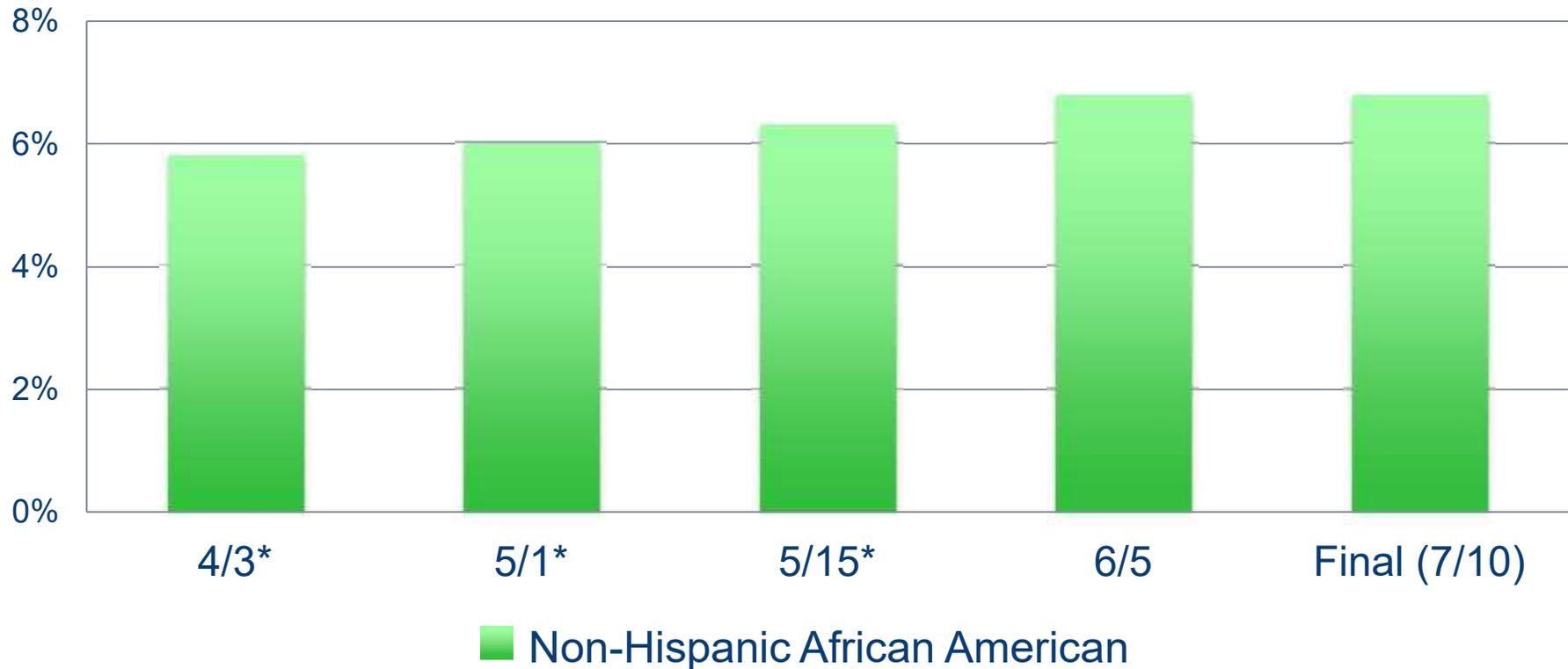
SASS Counterfactual Scenarios with Early Cutoff

Principal Estimates



SASS Counterfactual Scenarios with Early Cutoff

Teacher Estimates

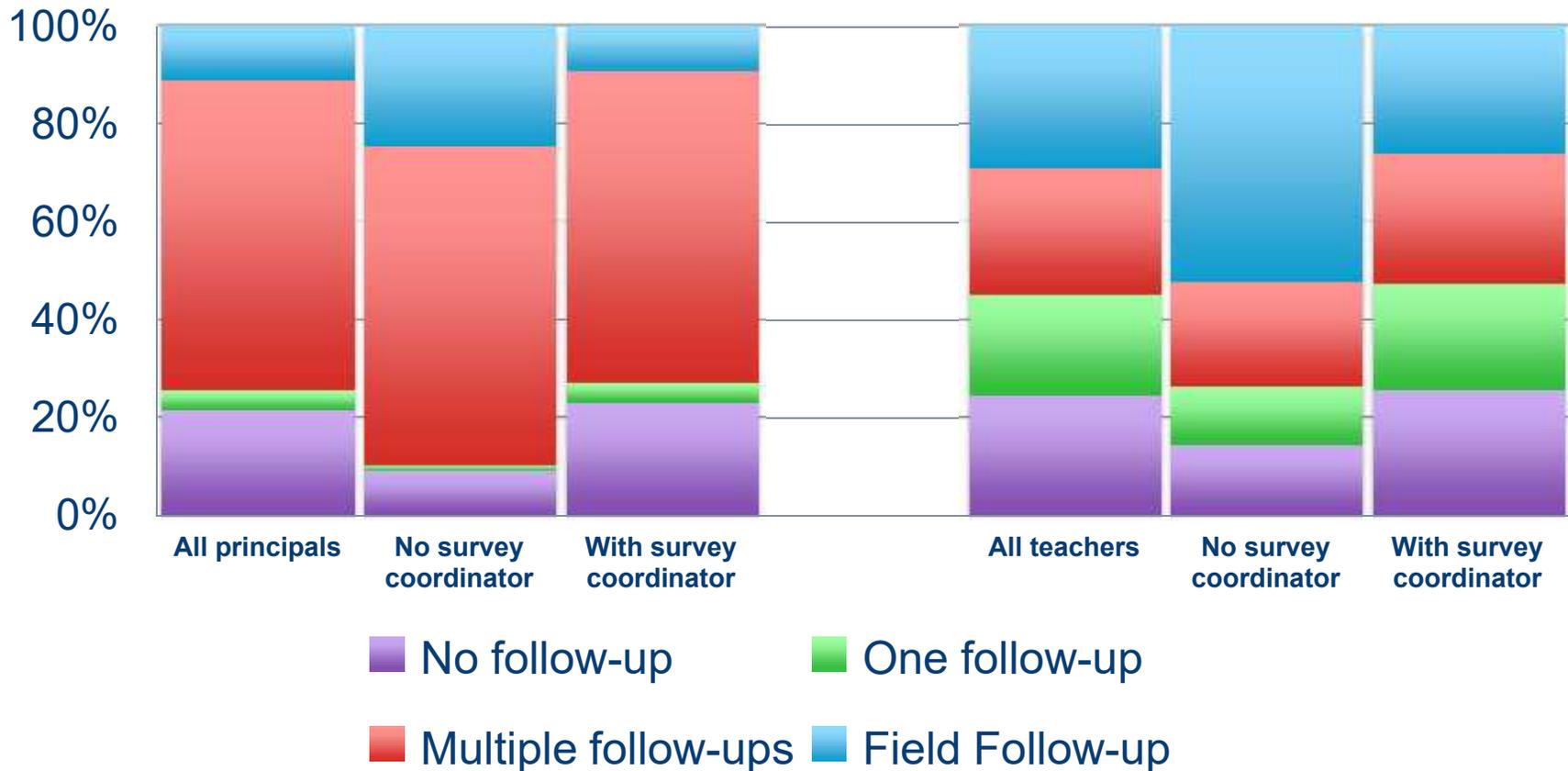


SASS Survey Coordinator

- In sampled public schools, survey coordinators were recruited.

Survey coordinator	Principal response%	Teacher response%
No survey coordinator	26.4%	58.6%
With survey coordinator	81.1%	76.4%

SASS Follow-up by Survey Coordinator Status



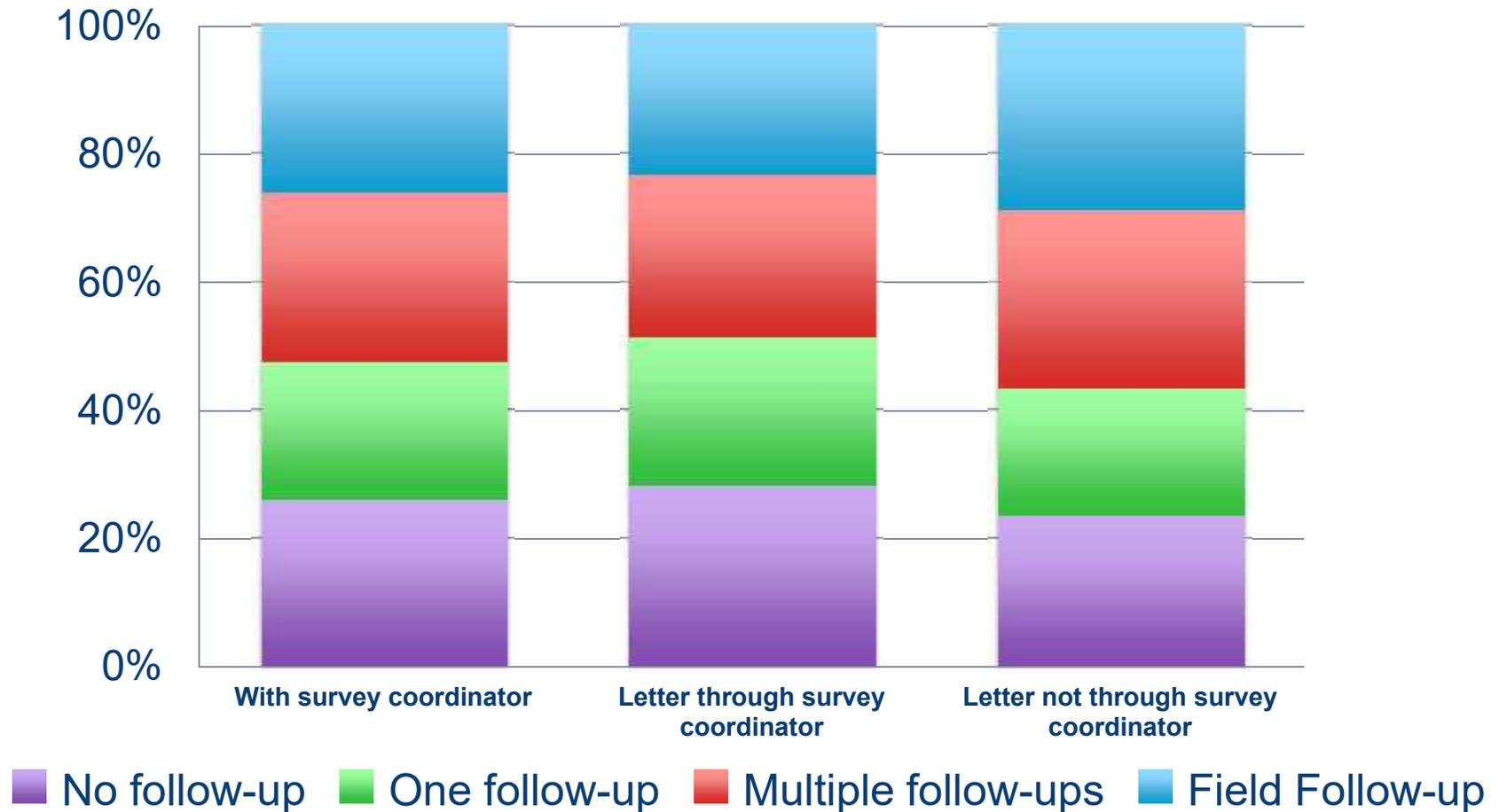
¹⁸ Significantly different ($p < 0.05$), Rao-Scott chi-square test

SASS Experimentation with Survey Coordinator

- Among sampled teachers in public schools with a survey coordinator, an experiment was conducted.
 - Teacher letter through coordinator (treatment group)
 - Teacher letter not through coordinator (control group)

Teacher experimental group	Teacher response%
Teacher letter through coordinator	78.1%
Teacher letter not through coordinator	74.7%

SASS Follow-up by Teacher Experimental Group



²⁰ Significantly different ($p < 0.05$), Rao-Scott chi-square test

Conclusions from SASS Results

- Field period length can be shortened with small loss in response rate and minimal change in estimates.
- Need to prepare for short field period for teacher questionnaires with teacher listing form received late.
- Recruiting and making contact through a survey coordinator may help to increase response rates and to reduce follow-up efforts.

NTPS Planned Initiatives for 2015-16 Cycle

- Paradata to be collected and analyzed.
 - Modes of contact, dates for each contact, mail out dates, ...
- Variable field efforts from the beginning for classes of schools, principals, and teachers with possibly lower response propensities (city schools, high poverty schools, minority or less experienced principals and teachers).
- Reduce response rate differences (“Go the hard road”).
- Ongoing use of experimentation and simulation.

Thank you
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