

NatCen

Social Research that works for society

**Using targeted design to
improve sample quality in a
probability-based mixed-
mode panel**





Contents

- Background
- What is a ‘targeted design’?
- Implementing the targeted design
- Measuring the impact
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Background

- Long-term decline in social survey response rates
 - Increasing costs of maintaining them
- Response rates are not necessarily associated with sample representativeness
- ‘One-size-fits-all’ fieldwork designs may not be optimal



Adaptive/Responsive Designs

- Use auxiliary data to target fieldwork protocols to sub-groups within a sample, with the goal of improving fieldwork outcomes
- Auxiliary data may be information held about cases *ahead* of fieldwork collected *during* fieldwork
 - Used to understand survey sample and monitor outcomes
- Selection & implementation of appropriate protocols is key



Targeted Design

- Many different approaches to responsive designs
- Split into two categories:
 - **Static designs** where fieldwork protocols are fixed at the start of fieldwork based on existing auxiliary data
 - **Dynamic designs** where fieldwork protocols can change during fieldwork based on auxiliary data collected

A 'targeted design' is a form of **static** responsive design, using data collected at the recruitment interview and previous fieldwork waves to target fieldwork protocols

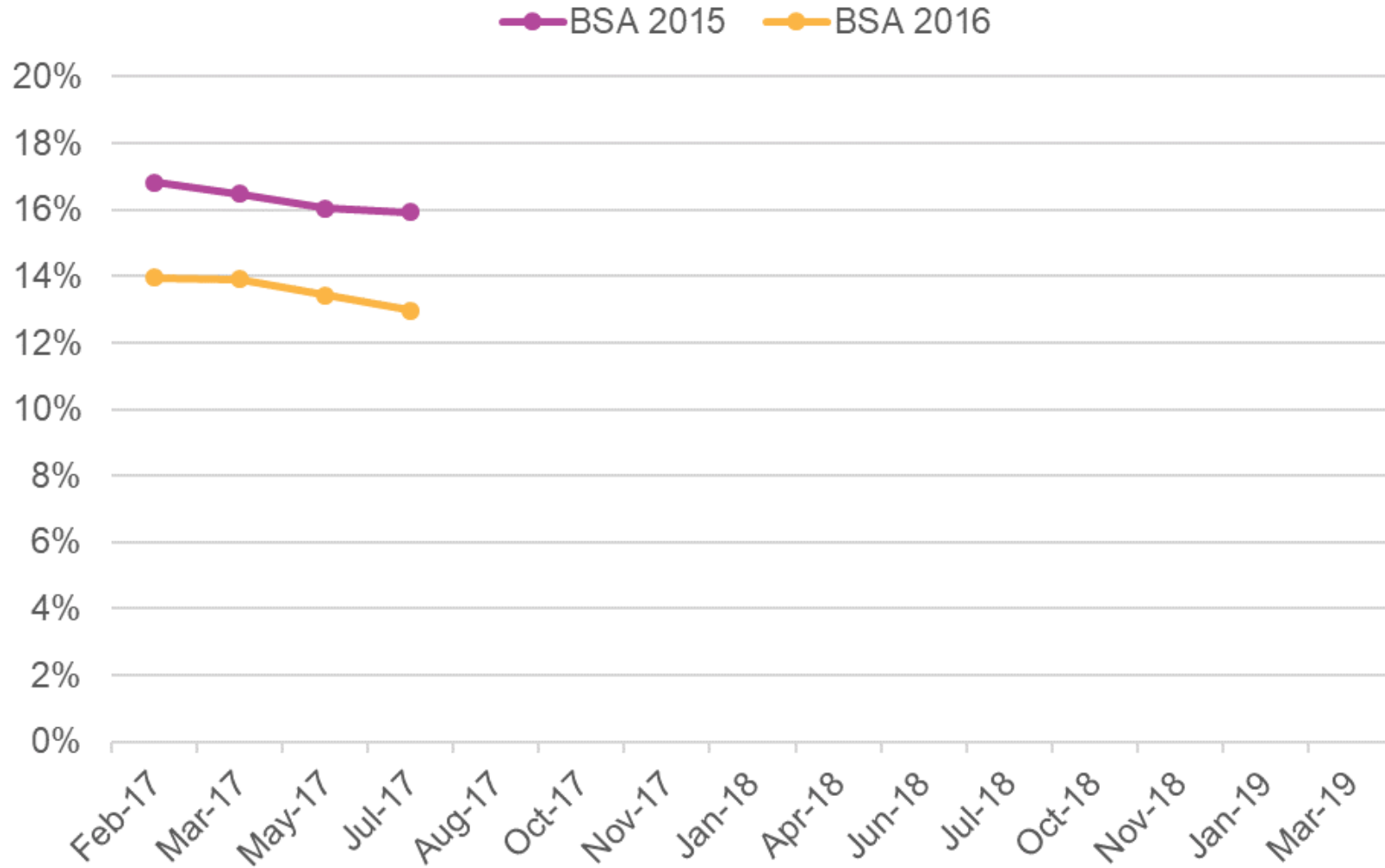


The NatCen Panel

- First probability-based research panel in GB open to be used by the social research community
- Aims to produce reliable estimates for the British population in a shorter time-frame and at a lower cost than ‘traditional’ probability-based approaches.
- c.8,000 members recruited from face-to-face probability-based BSA survey (2015 to 2018)
- Sequential mixed-mode fieldwork design (web/CATI), lasting c. one month

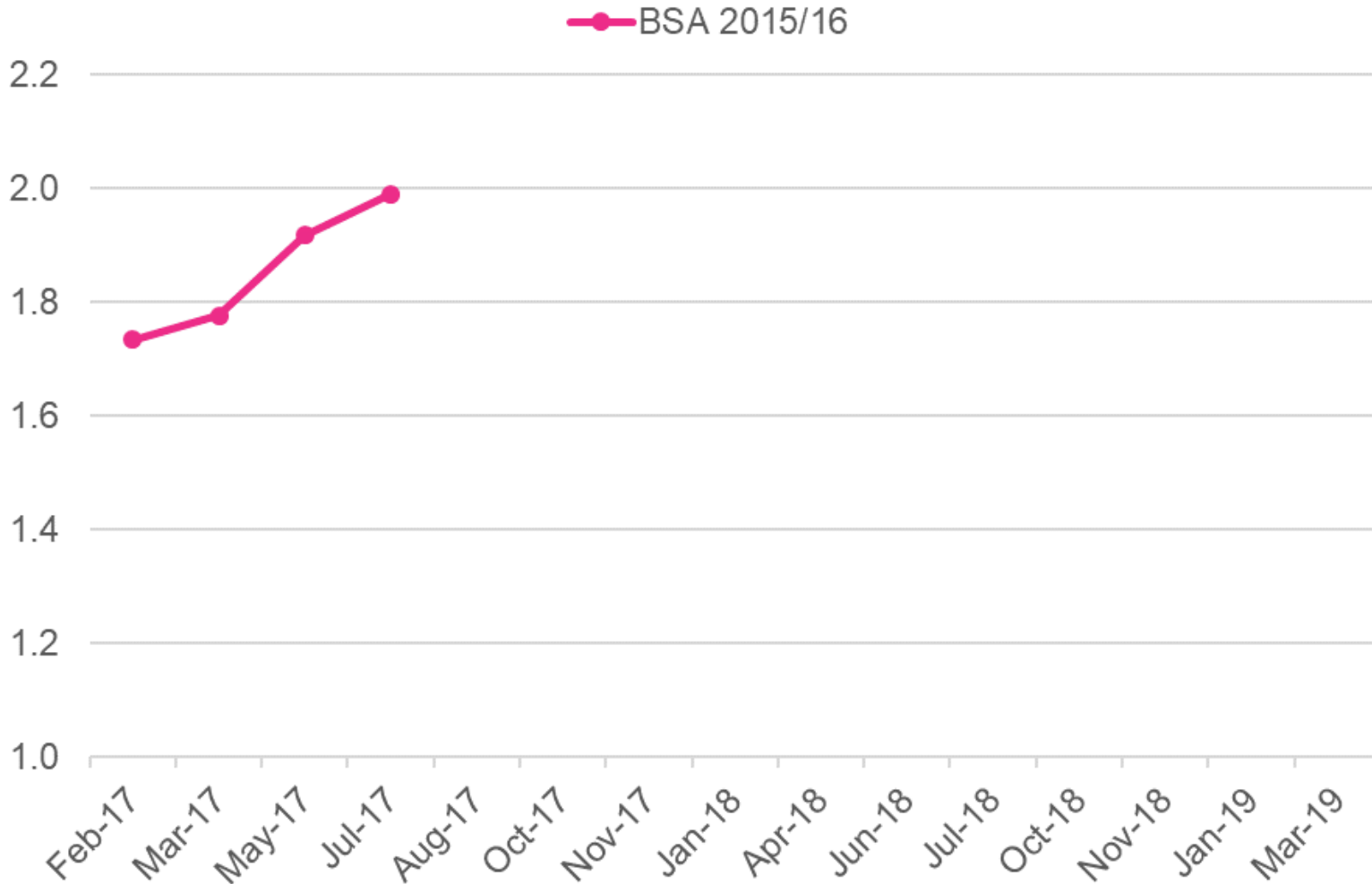


Gradually declining response rates





Gradually increasing DEFFs





Implementing a targeted design

- Didn't want to implement 'response maximisation' approach
 - Low concern: *gradual* decline + annual refreshment from BSA
 - Unknown impact on sample representativeness
 - Concern about impact on fieldwork costs & length
- Therefore opted for a targeted design which aimed to *improve the sample profile while keeping costs, fieldwork length, and response rates neutral*



Prioritising & de-prioritising cases

- Overall, aimed to optimise impacts
 - Move resources towards those who are under-represented
 - Move resources away from those who are less likely to be affected
- Used two sets of auxiliary data to identify how to move resources
 - **Demographic data** from BSA to identify panel members typically over- or under- represented in Panel surveys
 - **Participation history data** to improve the efficiency of targeting



Prioritising & de-prioritising cases

	Participated in all waves	Participated in some waves	Participated in no waves
1 (most under-represented)	Medium priority	Highest priority	Low priority
2	Medium priority	High priority	Low priority
3	Medium priority	High priority	Low priority
4	Medium priority	High priority	Low priority
5	Low priority	Medium priority	Lowest priority
6	Low priority	Medium priority	Lowest priority
7	Low priority	Medium priority	Lowest priority
8 (most over-represented)	Low priority	Medium priority	Lowest priority



Targeting protocols

Priority group	Incentive offer	CATI fieldwork	Communications
Highest priority	£10	Minimum of 8 calls	Two reminder letters
High priority	£5	Minimum of 8 calls	One reminder letter
Medium priority	£5	Minimum of 6 calls	One reminder letter
Low priority	£5	Minimum of 4 calls	No reminder letters
Lowest priority	£5	Not issued to CATI	No reminder letters

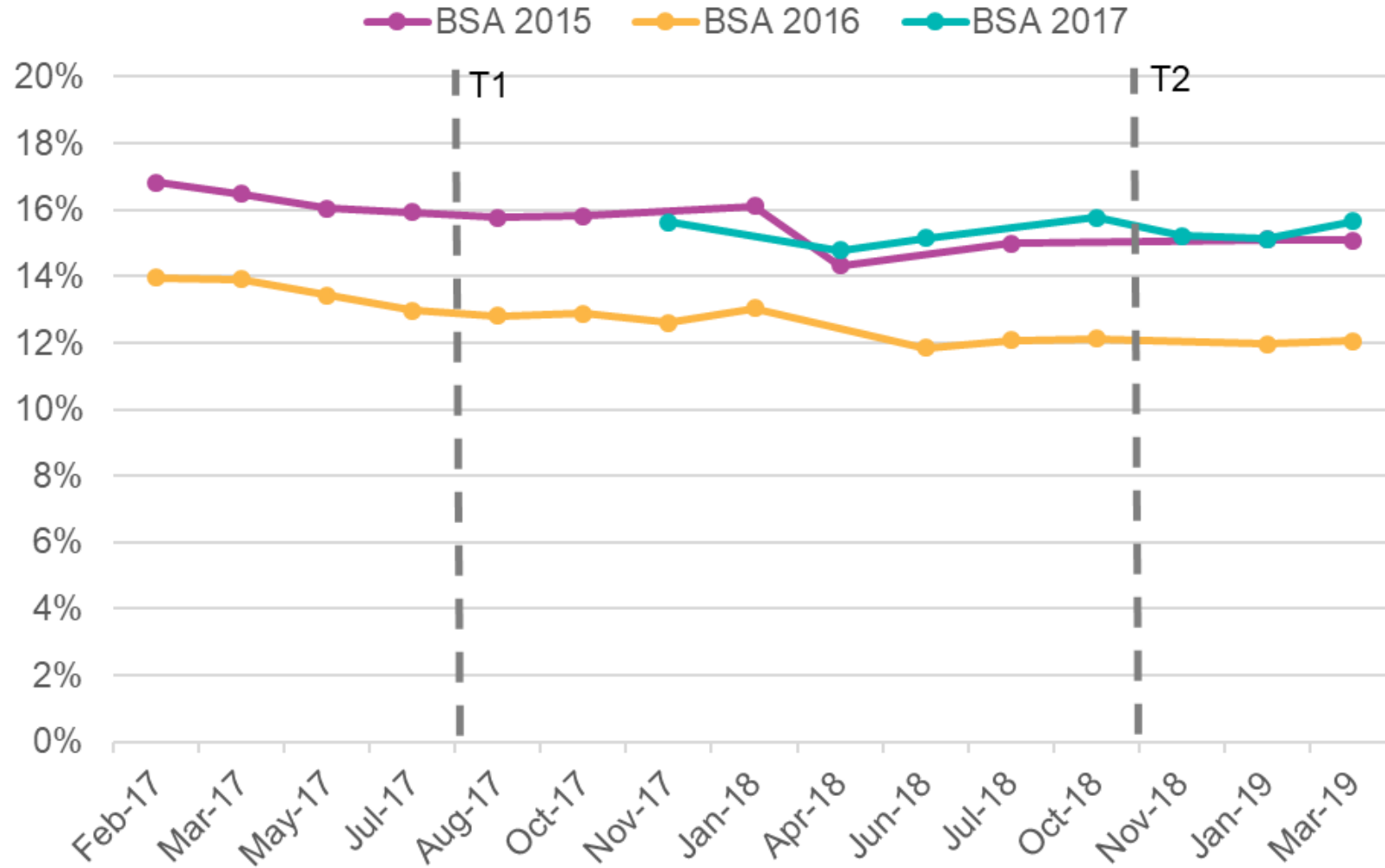


Measuring the impact

- Overall goal to *improve the sample profile while keeping costs, fieldwork length, and response rates neutral*
- Overall response rates continued gradual decline; fieldwork length the same, costs increased c.40p per issued case
- To measure impact on sample profile:
 - Differential impact of protocols on survey response rates of priority groups
 - Impact on overall DEFFs and R-indicator scores
- **HOWEVER...** not implemented as an experiment
 - Compare figures before/after implementation
 - But no counter-factual (impact of external effects)

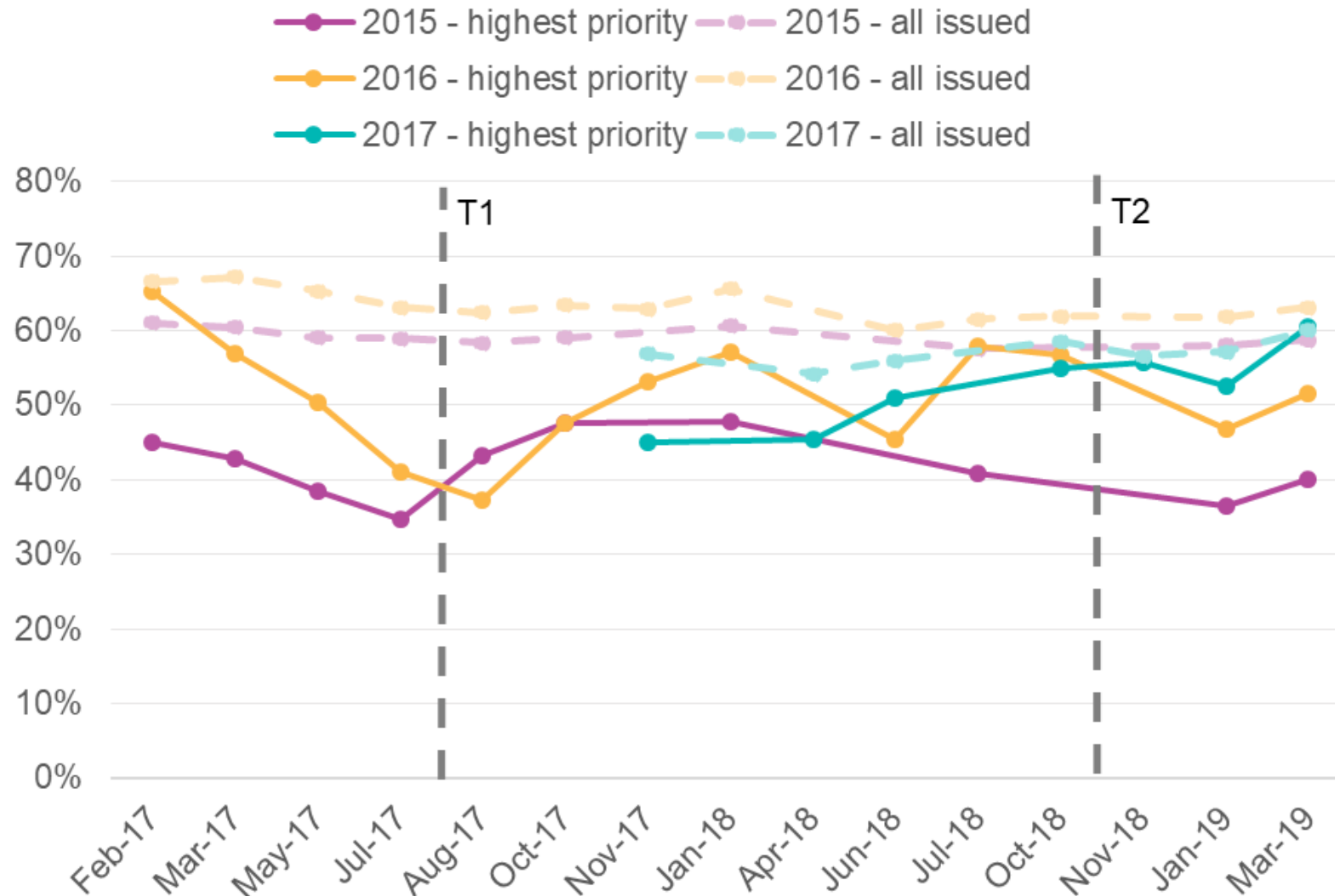


Response rates



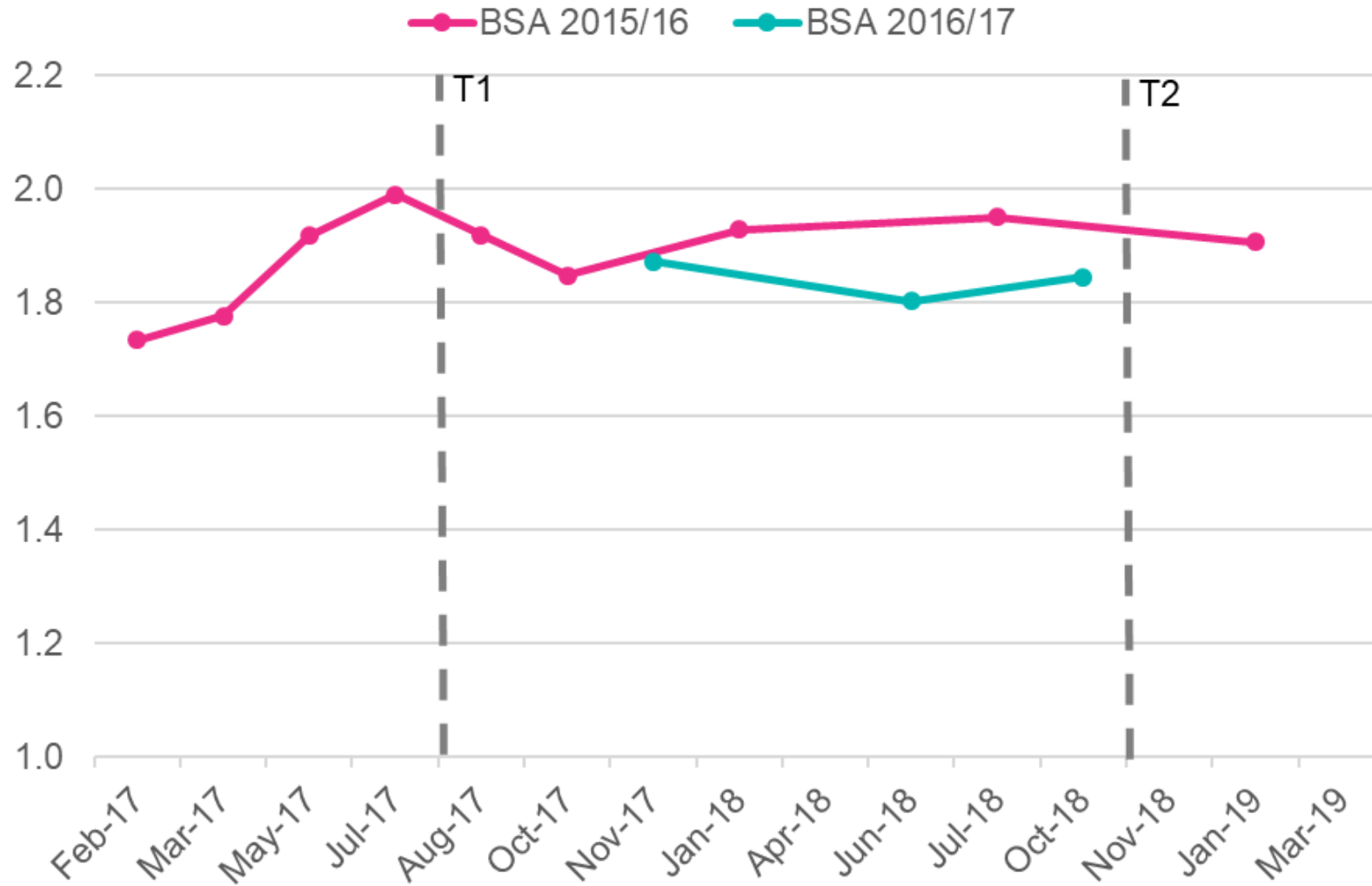


Response rates – Highest priority



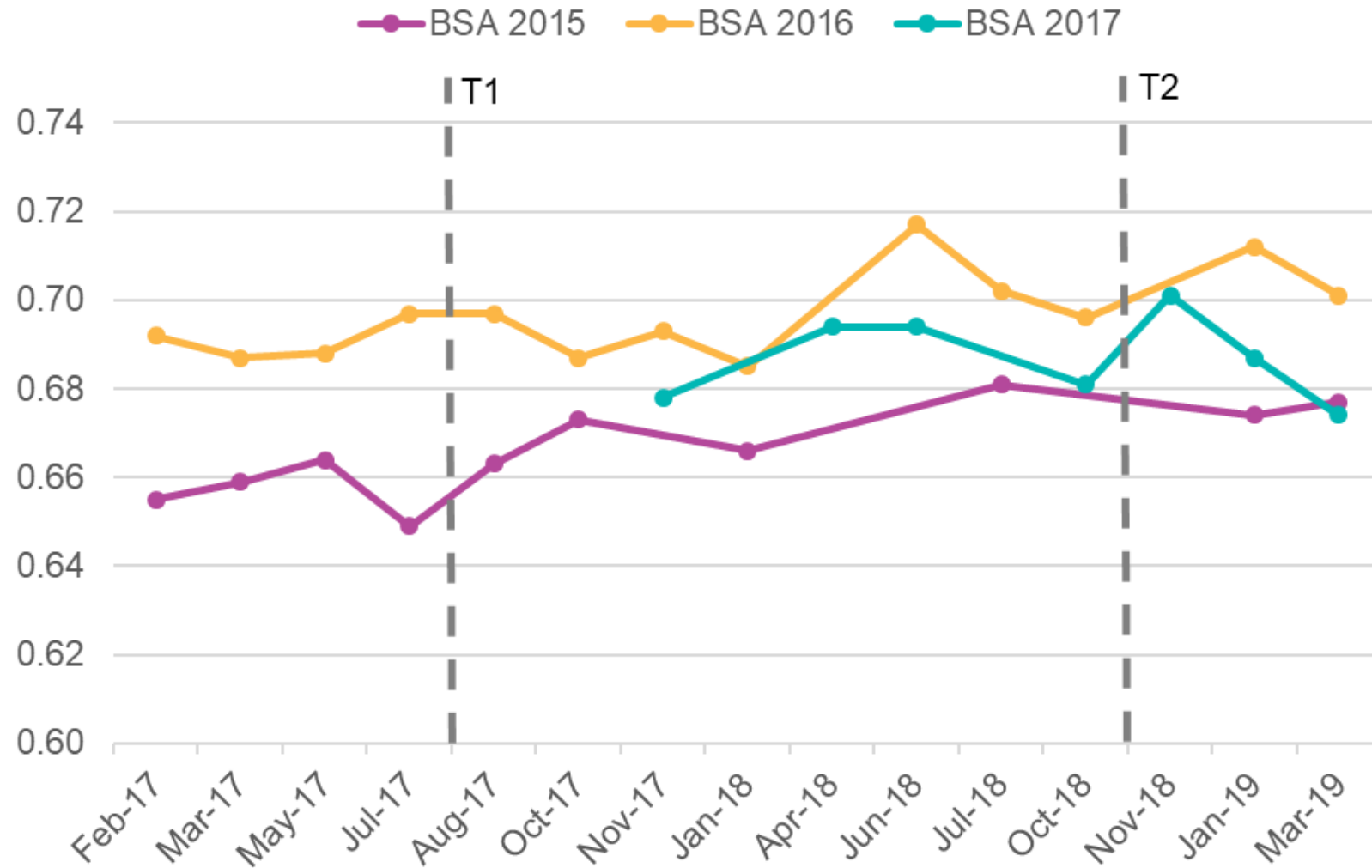


DEFFs





R-Indicators





Discussion

- Implementation of targeted design is possible on a panel sample, even with tight budget & time constraints
- But no clear or consistent impact on sample quality:
 - Possible halting of decline in survey response rates/DEFFs for BSA 2015/16 cases...?
 - But no evidence of impact on BSA 2017 cases, or in R-indicators & patterns of change not as expected
- Impacts too small?
 - Majority of non-response occurs before panel survey
 - Panel members are a relatively engaged group
 - Small proportions targeted: 19% high priority, 6% highest priority
 - ‘Separate the signal from the noise’



Next steps...?

- Continued implementation of the design
- Further development
 - Larger impact of targeted design
 - Move more cases towards 'extremes' of priority groups
 - Different protocols/ 'amplifying' existing ones
 - Use new auxiliary data
 - Target different fieldwork outcomes
 - Dynamic designs
 - E.g. email protocols based on opening of previous ones, or telephone protocols based on previous call outcomes

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