

Impact of the COVID-19 Pandemic on Consumer Expenditure Surveys

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Overview

- Timeline of events—protocol changes
- Guidance to Field Staff
- Non-respondent reclassification
- COVID-19 impact on CE interview data quality



Consumer Expenditure Surveys

■ Interview

- ▶ Large purchases and recurring payments
- ▶ 3 months recall
- ▶ Rotating panel
- ▶ 4 waves
- ▶ In-person and telephone surveys

■ Diary

- ▶ Small or frequently purchased items
- ▶ Two consecutive 1-week periods
- ▶ In-person placement and pick up
- ▶ Paper diary

Protocol Changes



Timeline

March 2020

- * Online version of Infobook
- * Telephone interviewing only
- * Census Nation Processing Center (NPC) closed

June 2020

- * Online Diary
- * Stimulus payment questions added

April & May 2020

- * Advance Letters

July 2020

- * Some personal visits are allowed for certain geographic areas (optional)
- * Disposable information booklets were provided

Guidance to Field Staff - Interview

- Telephone interviewing
 - ▶ For Wave 2 to Wave 3 interviews, Field interviewers (FRs) likely have a working phone number
 - ▶ FRs use Census resources to obtain phone numbers for those cases not yet contacted/without an available phone number
- COVID flag was added for non-respondents
- Use of online version of the Information Booklet
- July 1st – Personal visits are optional

Guidance to Field Staff - Diary

- Conduct telephone interview to collect demographic and income section
- Send a web link to Diary forms or ship Diary form
- COVID flag was added for non-respondent
- June 1st – Provide option of online diary
- July 1st – Personal visits are optional



Non-respondent Reclassification



Non-respondent Reclassification

- Beginning mid-March, the COVID-19 pandemic forced the U.S. Census Bureau to mandate that interviewers make contact attempts and conduct interviews *only by phone*
- Many addresses were “unreachable” by phone, making their eligibility status unknown
- AAPOR’s Standard Definitions Report recommends being conservative with response rates
- Increase in eligible nonresponse results in lower response rates but more accurate
- FRs were initially instructed to code the cases of unknown eligibility as ineligible



Non-respondent Reclassification

- CE changed some ineligible non-response to eligible nonresponse based on following rules
- Interview
 - ▶ If the interviewer attached a COVID-19 note to the case, and the CU was eligible in a previous interview
 - ▶ When the interviewer attached a COVID-19 note to the case, but we did not have information on the CU's prior eligibility, randomly reclassified them based on prior eligibility rates for the region
- Diary
 - ▶ For Diary, we used Interview Survey *eligibility* rates and either both weeks were reclassified or none *were*



Interview Reclassification Summary

	Response Rate Before Reclassification	Response Rate After Reclassification
April	63 %	46%
May	63 %	47%
June	66 %	45%



Diary Reclassification Summary

	Response Rate Before Reclassification	Response Rate After Reclassification
March	49 %	39 %
April	52 %	29 %
May	52 %	29 %



COVID Impact on Interview Data Quality



Interview Data Quality

■ CE interview Survey

- ▶ From July 2019 to June 2020
- ▶ Sample size of 13,246
- ▶ Restricted to those who completed the interview, have change of mode information, and removed first interviewers
- ▶ **Pre COVID-19:** Before the start of the COVID-19 pandemic (July 2019 – March 2020)
- ▶ **During COVID-19:** After the start of the COVID-19 pandemic (April 2020-June 2020)

Background

- Since beginning of the March 2020
 - ▶ Covid-19
 - ▶ Switched to all telephone interview
- Mode effect (Biagas, 2020; Young, 2020)
 - ▶ Telephone respondent tend to have higher salaries, levels of education, and more likely to be homeowner and white
 - ▶ Personal visit respondents are more likely to use records during interview and reported lower expenditures

Quality Metrics

- Total Interview Time
- Number of Entries
- Proportion of Rounded Entries
- Total Expenditures



Mode Changes in the data

Time	Prior Mode		Current Mode	N
Pre COVID-19	In-person	➡	In-person	4,982
	Telephone	➡	Telephone	3,050
	In-person	➡	Telephone	1,610
	Telephone	➡	In-person	461
During COVID-19	Telephone	➡	Telephone	1,412
	In-person	➡	Telephone	1,677



Hypothesis #1

■ Naïve approach

- ▶ telephone to telephone would show the effect of COVID-19 pandemic on changes in data quality

Pre COVID-19

During COVID-19

Telephone to Telephone



Telephone to Telephone

(Remain all telephone interview)

Hypothesis #2

Pre COVID-19

In-person to In-person

In-person to Telephone



During COVID-19

In-person to Telephone

(Shift to all telephone interview)

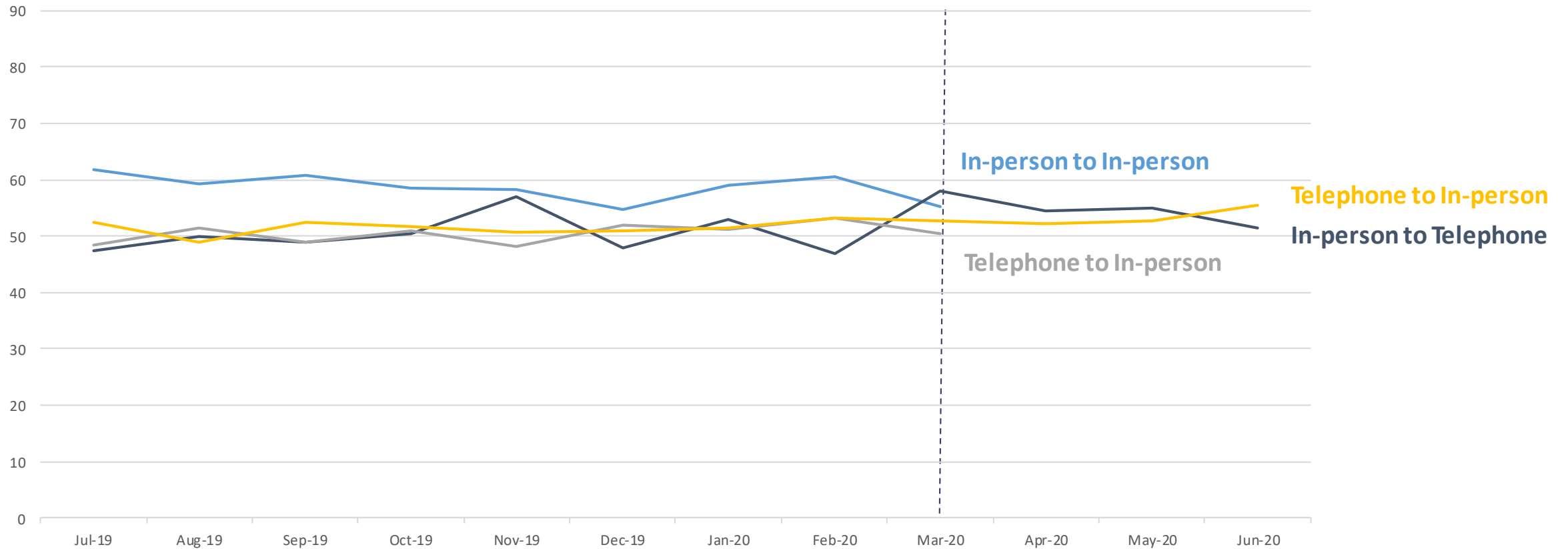
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Demographic Characteristics

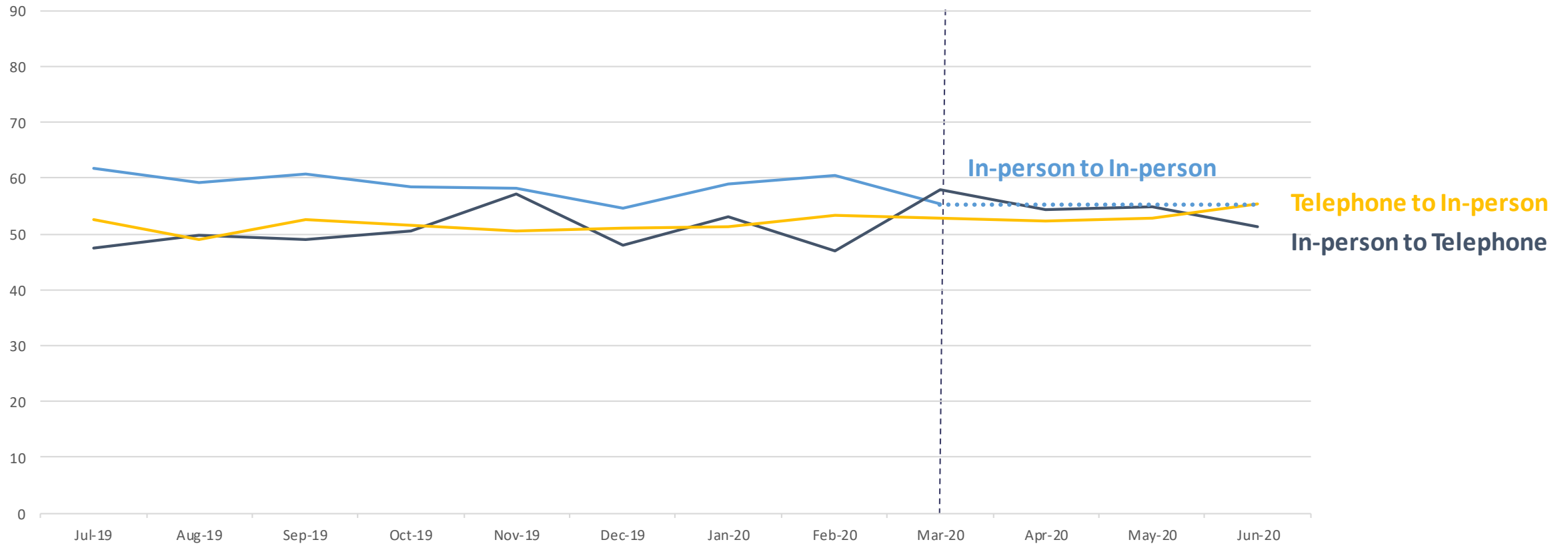
- In-person to Telephone in Post COVID
 - ▶ Home owner
 - ▶ White
 - ▶ Older



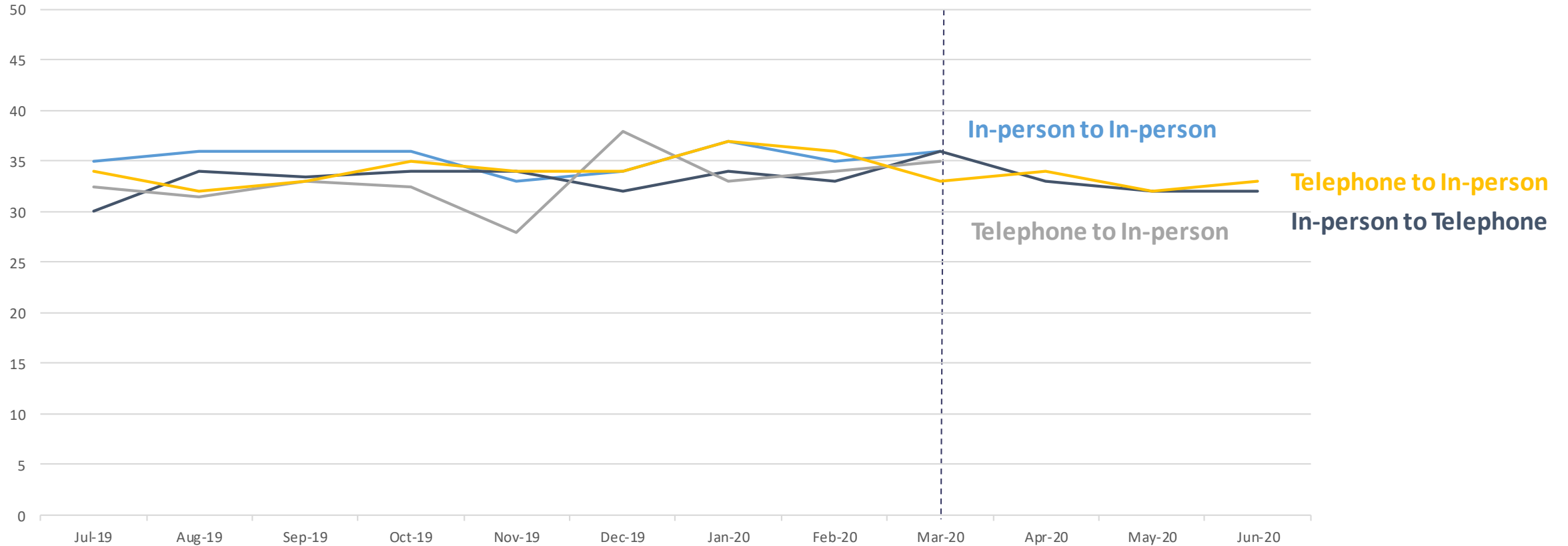
Data Quality – Interview Time



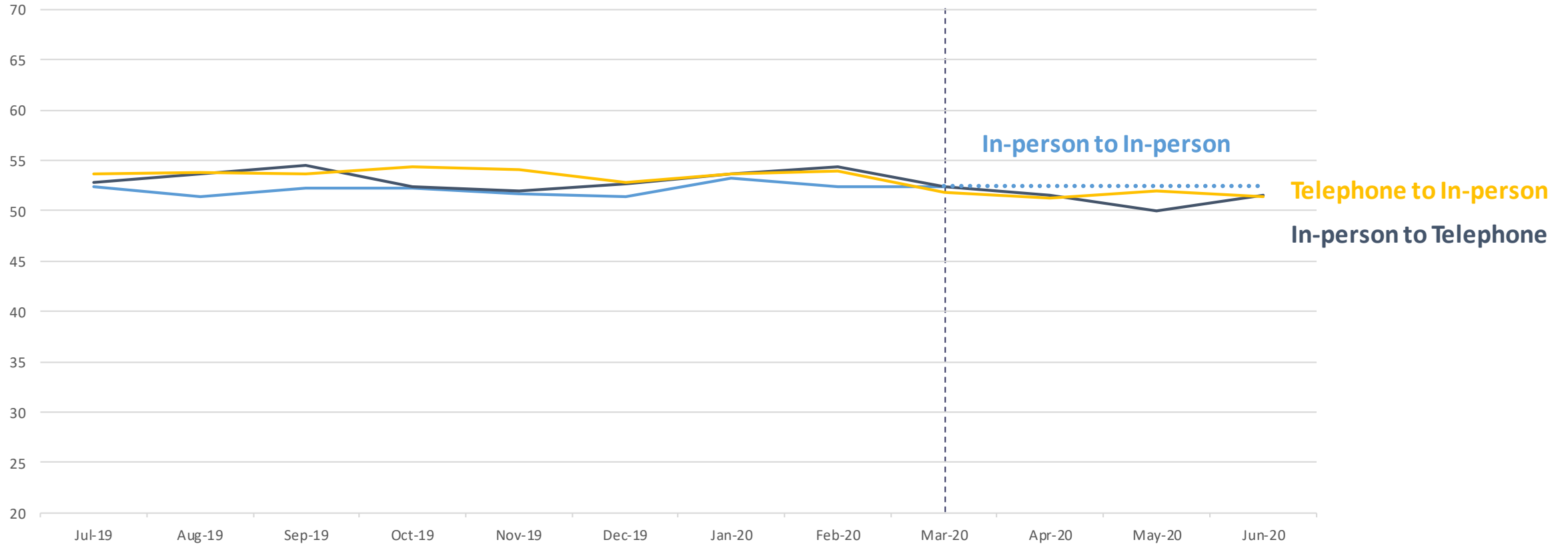
Data Quality – Interview Time



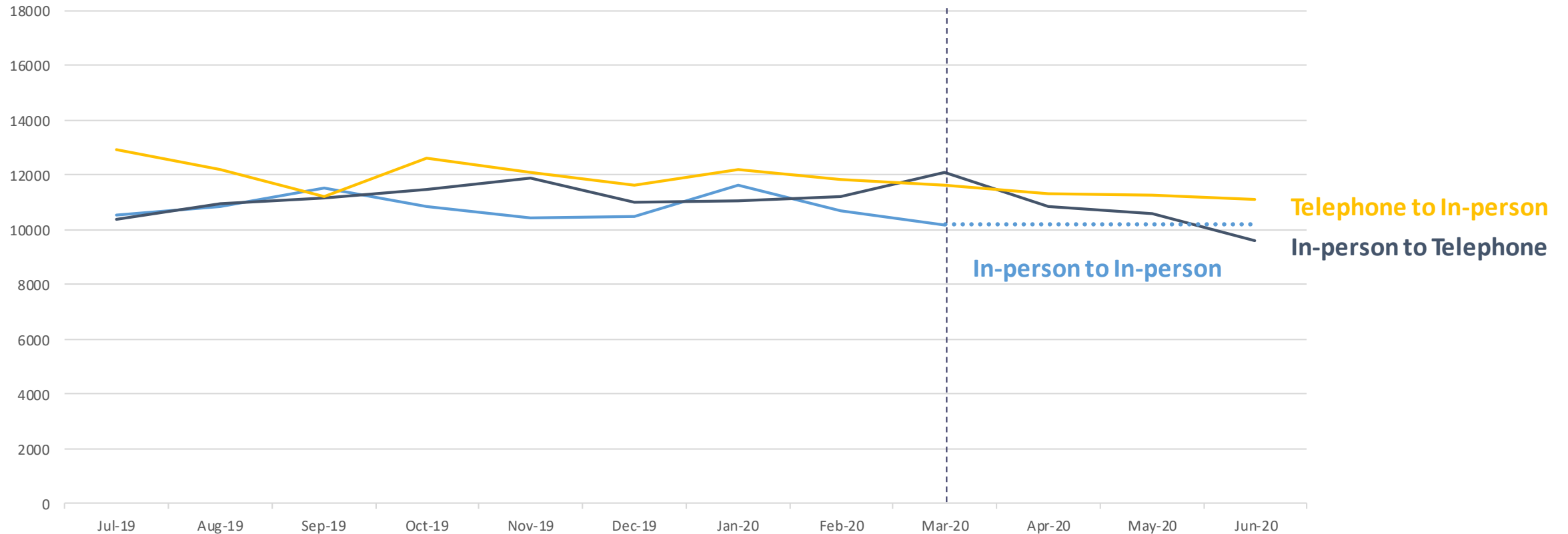
Data Quality – # Entries



Data Quality – % Rounded Entries



Data Quality – Total Expenditures



Result Summary

■ Trend

- ▶ Interview Time: No change
- ▶ Number of Entries: No change
- ▶ Proportion of Rounded Entries: No change
- ▶ Total Expenditures: Decrease



Conclusion

■ Impact of COVID-19 pandemic

- ▶ Shift to telephone interview
- ▶ Online Diary implemented
- ▶ Reclassification had major impact on response rate
- ▶ No significant impact on data quality

■ Lesson learned

- ▶ Flexibility & Communication was very important in responding to the COVID-19 pandemic

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