

Response rate during a pandemic. Response rate of the Labour Force Survey in Iceland during the Covid-19 pandemic in 2020

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Abstract

Statistic Iceland has been using CATI for the Labour Force Survey since 1992. When the Covid-19 virus arrived in Iceland, arrangements of the interviewers' shifts were changed but no other change were made in the data collection. Despite having fewer interviewers in each shift, the response rate increased this year in comparison to 2019. Response rate increased among all ages, for both genders and among those who are unemployed. However, large part of the increase in response is because the interviewers started to call non-contacts from a cell phone.



Statistics Iceland

RESPONSE RATE DURING A PANDEMIC

Response rate of the Labour Force Survey in Iceland
during the Covid-19 pandemic in 2020

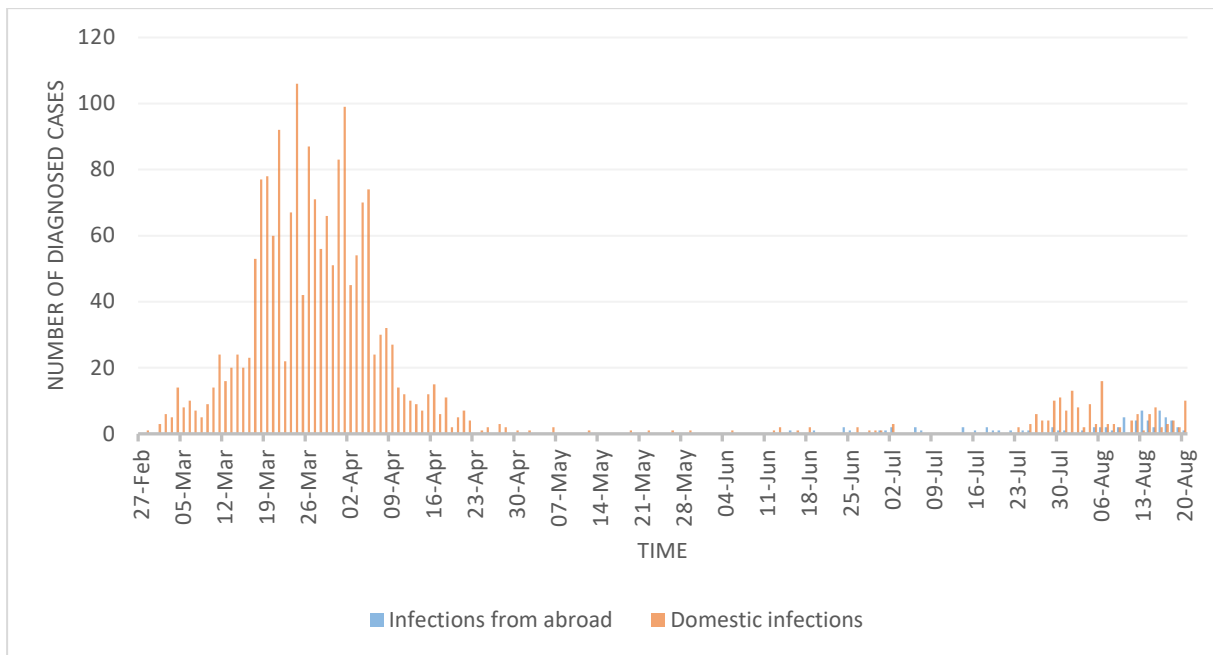
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Statistic Iceland has been using CATI for the Labour Force Survey since 1992. When the Covid-19 virus arrived in Iceland, arrangements of the interviewers' shifts were changed but no other change were made in the data collection. Despite having fewer interviewers in each shift, the response rate increased this year in comparison to 2019. Response rate increased among all ages, for both genders and among those who are unemployed. However, large part of the increase in response is because the interviewers started to call non-contacts from a cell phone.

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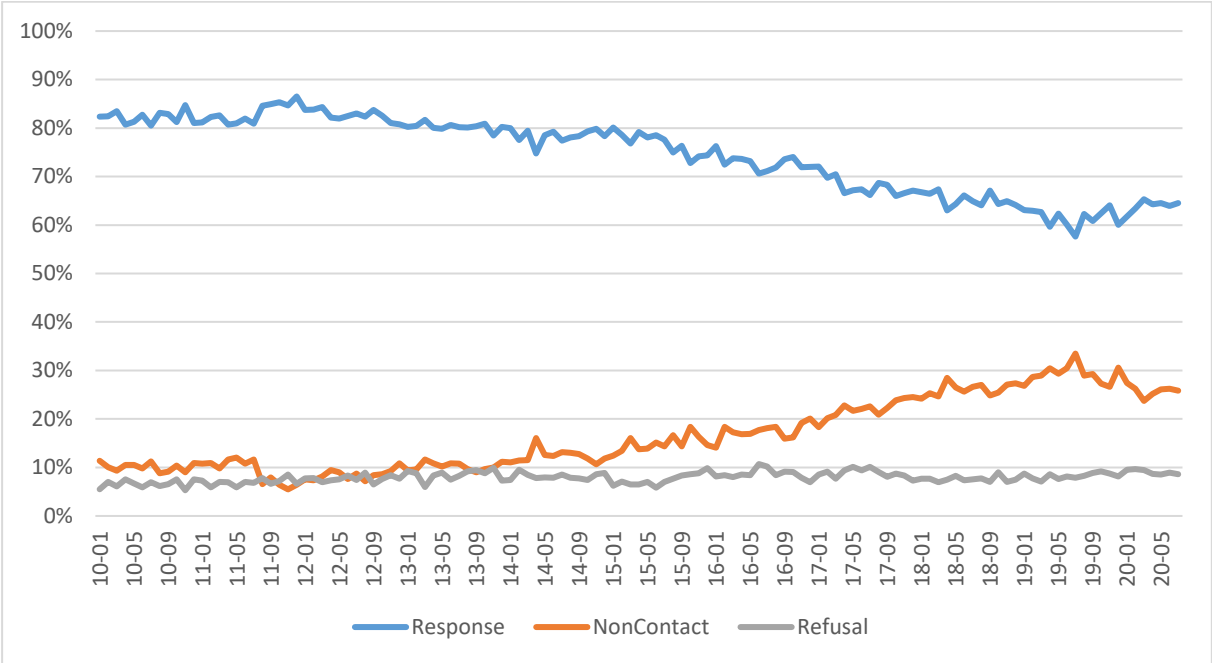


Graph 1. Number of diagnosed people with Covid-19 from 27th of February 2020 until 20th of August. The graph shows number of domestic infections separately from those who came from abroad after 15th of June (Directorate of Health and Department of Civil Protection and Emergency Management, 2020).

On a cold winter day, the 28th of February, the first person in Iceland tested positive with Covid-19. Seventeen days later Icelandic authorities imposed an assembly ban for more than 20 people. There were daily diagnosis of the virus until 22nd of April. The limitations of number of people assembling was increased to 50 on 4th of May. The limit was 200 on 25th of May but 500 on June 15th. In June, tourists were allowed to come to the country but they had to be tested at the border.

Statistic Iceland has been using CATI for collecting data for the Labour Force Survey since 1992. In the first decade the survey was conducted twice a year, in April and November, but since 2002 it is conducted continuously throughout the year. The data collection department made no changes in the collection method because of the pandemic. However, all the interviewers were split into 3 shifts and no interaction was allowed between the groups. They were split up so if anyone would be infected and his or hers whole group would be put in quarantine the other 2 groups could take over their shifts. The phone centre was reorganized in order to make sure that there were 2 meters between workstations in line with

the government’s guidelines. Hence, only every other computer was in use to have enough space between interviewers and they had to sanitize their workstation before and after each shift. Luckily, none of the interviewers got infected.



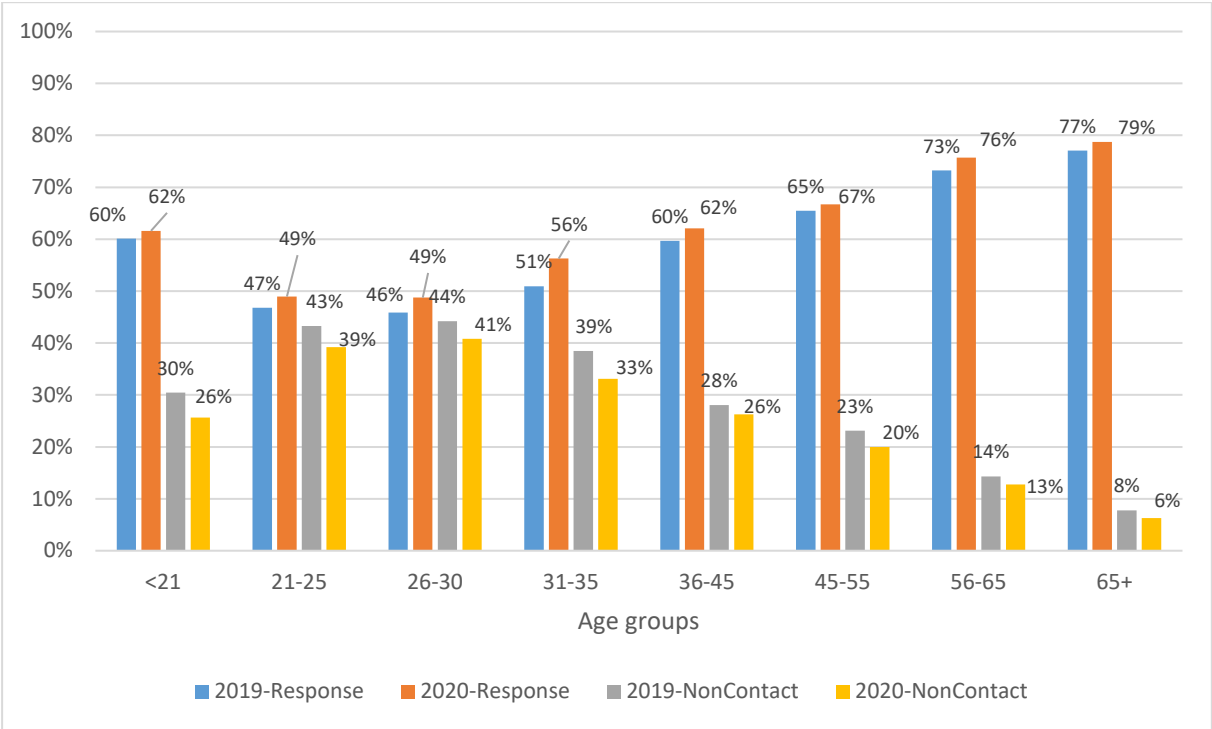
Graph 2. Average monthly response, non-contact and refusal rate of the Labour Force Survey from 2010 until July 2020

Over the last couple of years, the Labour Force Survey response rate has been decreasing, as can be seen in graph 2, with an increasing number of non-contacts. The younger generation generally don’t have a landline and not all have registered their cell phone numbers online. The data collection department was worried that the response rate would decrease even further because of the pandemic. However, the Labour Force Survey response rate increased. The average response rate of the first half of 2019 was 61.8% but 64% in the first half of 2020. Comparing the response rate of the first 6 months of 2019 with the first 6 months of 2020 with two sided binomial test shows that the difference is statistically significant, $Z=3.11$ and $p=0.0001$. The refusal rate stayed similar but the non-contact rate decreased. People seem to be more likely to pick up the phone during the pandemic. The pandemic is, nonetheless, not the whole story. In the last quarter of 2019 the data collection department started to call the non-respondents with a cell phone as well as spending more hours looking for phone numbers which is partly responsible for the increase.

1. Number of responses that came when called from a cell phone as well as the rate of the cell phone response to the sample size. These numbers are not prices but an estimation.

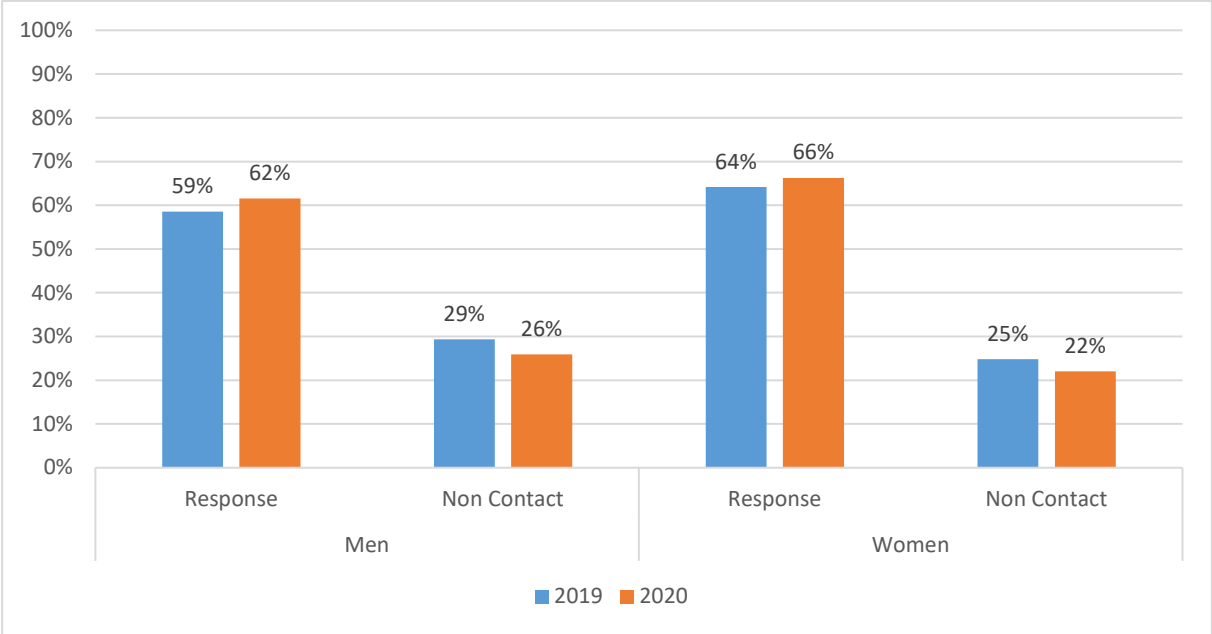
Quarter	Response from GSM	Rate
Q4 2019	24	0.5%
Q1 2020	84	1.7%
Q2 2020	89	1.8%

The table 1 shows how much of an impact calling from a cell phone had on the response rate. The rate is number of responses from a GSM divided by the number of people in the sample that are part of the population. Using a cell phone to call the non-contacts explains large part of the increase seen in response rate in 2020. If the GSM responses are removed from the 2020 data the average response rate is only 62,2% which is not much of an increase from the year before, 61.8%.



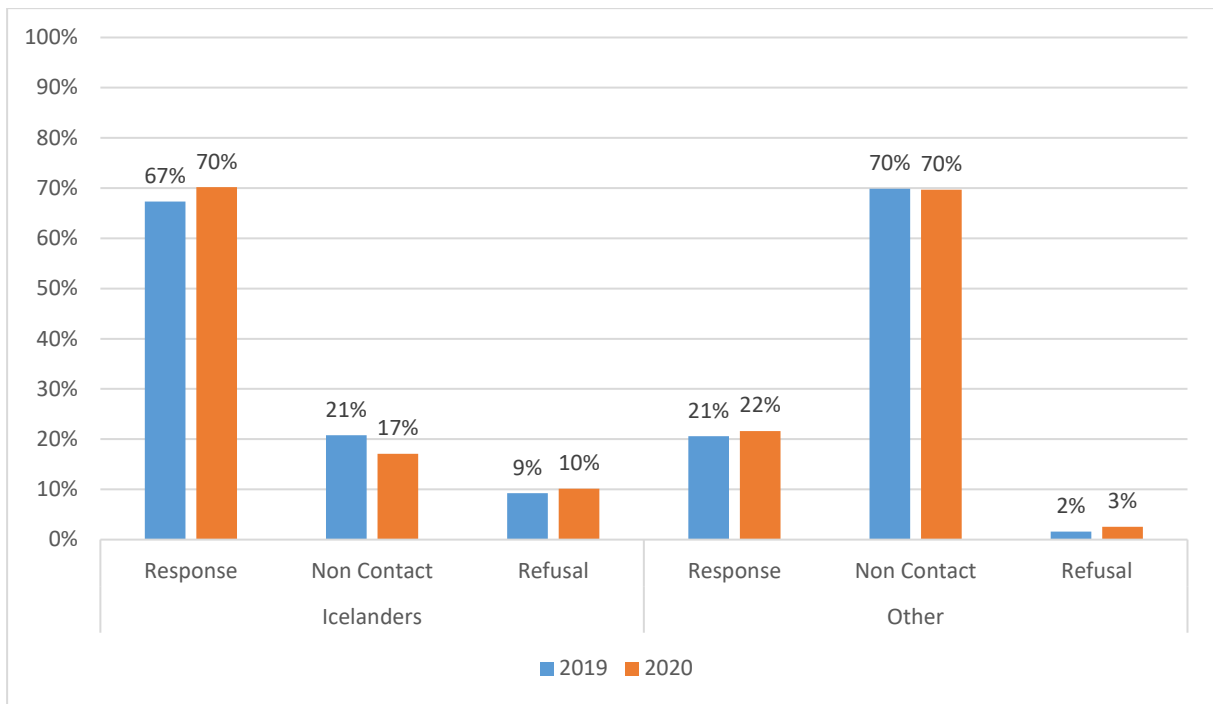
Graph 3. Average response and average non-contact rate for different age groups in the Labour Force Survey from January until December in 2019 compared to the first six months of 2020.

In 2020 the response rate increased and non-contact decreased for all age groups compared to 2019. With the largest change for 31 to 35 year olds. In general, the response rate continues to be lowest for 21-30 year olds but highest among 66 and older as can be seen from graph 3.



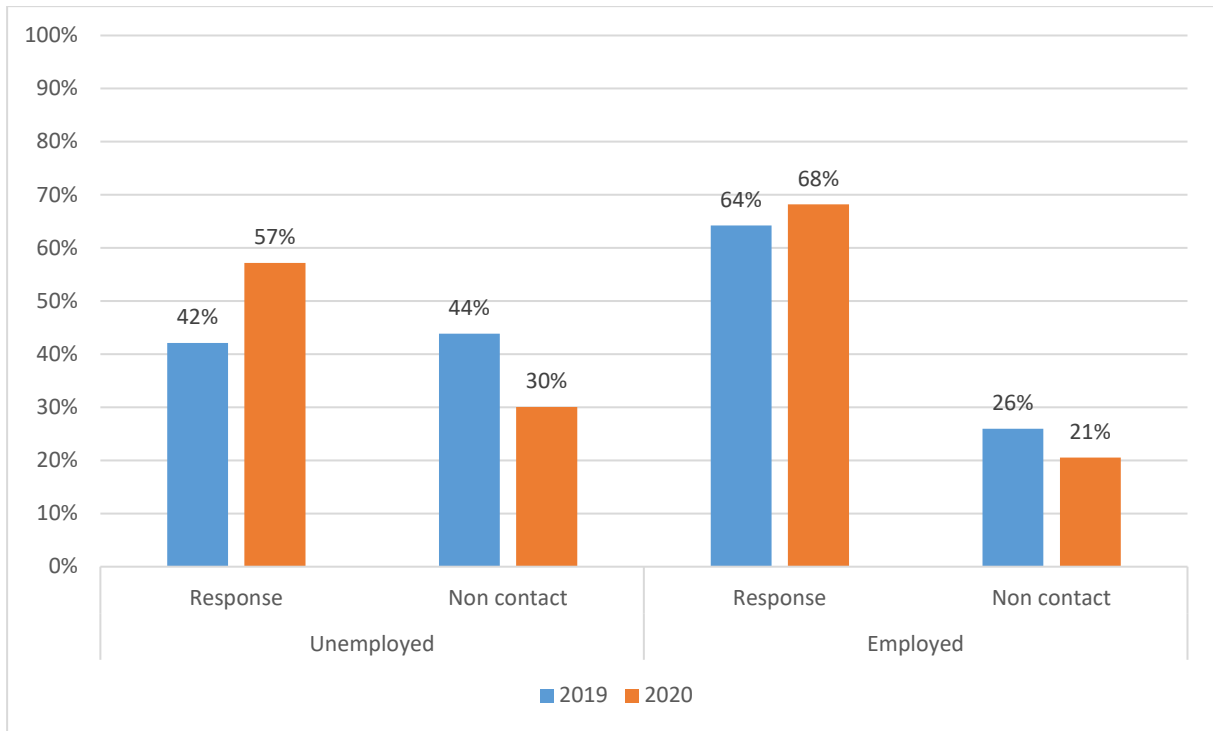
Graph 4. Average response and average non-contact rate for men and women in the Labour Force Survey from January until December in 2019 compared to the first six months in 2020.

Response rate increased among men and women in 2020 compared to 2019 as can be seen in graph 4 but response rate for women continues to be higher.



Graph 5. Average response and average non-contact rate for those with Icelandic citizenship and other citizenship in the Labour Force Survey from January until December in 2019 compared to the first six months in 2020.

Although response rate increased among immigrants and those with Icelandic citizenship in 2020 compared to 2019 the increase was higher among Icelanders. Finding phone numbers of those that do not have Icelandic citizenship has become substantially harder since 2013 but then the non-contact rate of immigrants was on average 28% while today its 70%.



Graph 6. The average response and non-contact rate among those who are unemployed from January until April in 2019 compared to the same period in 2020.

Employment register was used to get information of employment among those who did not answer the survey last year until April in 2020. That way response and non-contact rate can be compared between those who are employed and those who are not. Comparing the response rate from January to April in 2020 to the same timeframe last year it shows that the response rate of those who are unemployed according to the Employment register has increased by 10%. Response rate of the employed only increased to 4% in comparison. However, the unemployment rate has increased from 3.3% in first 4 months of 2019 up to 4.6% in 2020.

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