

Norwegian Citizen Panel

2020, Fast Track 2 – Covid-19

Methodology report

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BACKGROUND

The Norwegian Citizen Panel (NCP) is one of the main components of Digital Social Science Core Facility (DIGSSCORE) at the University of Bergen. NCP was established as a collaboration between several departments at the Faculty of Social Sciences at the University of Bergen, and NORCE.

ideas2evidence is responsible for the panel recruitment, the administration of the panel, and the technical solutions regarding data collection and computing.

This report describes the procedures of data collection in the second Fast Track wave of The Norwegian Citizen Panel. Furthermore, the report discusses technical aspects of the data collection before turning to the representativity of the panel and how the weights are calculated.

TECHNICAL ASPECTS OF THE SURVEY

SOFTWARE

The surveys are administrated through the web-based research software Conconfirm. Conconfirm is a “Software-as-a-Service” solution, where all software runs on Conconfirm’s continuously monitored server park, and where survey respondents and developers interact with the system through various web-based interfaces. This software provides very high data security and operational stability. The security measures are the most stringent in the industry, and Conconfirm guarantees 99.7 percent uptime. ideas2evidence does the programming of the survey in Conconfirm on behalf of The Norwegian Citizen Panel.

PILOT AND SOFT LAUNCH

The survey went through a small-N pilot among the researchers involved in the project.

The field period started by inviting a random sample of the respondents (soft launch). This was done in order to minimize the consequences of potential technical errors in the questionnaire. No such errors were located/reported after two hours of data collection among the random sample. Remaining panel members was therefore invited. No major errors were located/reported throughout the rest of the data collection; thus, the field period is regarded as successful.

RANDOMIZATION PROCEDURES

The NCP typically has extensive use of randomization procedures. The context of each randomization procedure may vary,¹ but they all share some common ground. Although randomization is limited in the Fast Track 2 survey, the following section describe the general formula.

All randomization procedures are executed live in the questionnaire. This means that the randomization takes place while the respondent is in the questionnaire, as opposed to pre-defined randomizations that are uploaded to the questionnaire. All randomizations are independent from another, unless the documentation states otherwise.

The randomization procedures are written in JavaScript. `Math.random()`² is a key function, in combination with `Math.floor()`³. These functions are used to achieve the following:

- Randomly select one value from a vector

¹ Some examples: sorting respondents in different thematic subsets, randomly allocate treatment value in experiments, randomize order of an answer list/array, order a sequence of questions by random, ask a given question to a subset of the respondents.

² Please see following resource (or other internet resources): https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/random

³ Please see following resource (or other internet resources): https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/floor

- Randomly shuffle the contents of an array

The first procedure is typically used to determine a random sample of respondents to i.e. a control group. Say for example we wish to create two groups of respondents: group 1 and group 2. All respondents are randomly assigned the value 1 or 2, where each randomization is independent from one another. When N is large enough these two groups will be of equal size (50/50).

Here is an example of the JavaScript code executed in Confrimit:

```
var form = f("x1");
if(!form.toBoolean()) // If no previous randomization on x1
{
  var precodes = x1.domainValues();// Copies the length of x1
  var randomNumber : float = Math.random()*precodes.length;
  var randomIndex : int = Math.floor(randomNumber);
  var code = precodes[randomIndex];
  form.set (code);
}
```

The second procedure is typically used when defining the order of an answer list as random. This can be useful for example when asking for the respondent's party preference or in a list experiment. However, since i.e. a party cannot be listed twice, the procedure must take into account that the array of parties is reduced by 1 for each randomization.

Here is an example of the JavaScript code executed in Confrimit⁴:

```
Function shuffle(array) {
  var currentIndex = array.length, temporaryValue, randomIndex;
  // While there remain elements to shuffle...
  while (0 !== currentIndex) {
    // Pick a remaining element...
    randomIndex = Math.floor(Math.random() * currentIndex);
    currentIndex -= 1;

    // And swap it with the current element.
    temporaryValue = array[currentIndex];
    array[currentIndex] = array[randomIndex];
    array[randomIndex] = temporaryValue;
  }
  return array;
}
```

PANEL RECRUITMENT

Panel members were recruited in wave 1, wave 3, wave 8, wave 11, wave 14 and wave 16 of the NCP. All samples were drawn from the *National Population Registry* of Norway. This registry holds information on everyone born in Norway, as well as former and current inhabitants. The formal responsibility for this registry is held by the Norwegian Tax Administration, but it has partly outsourced the administration to the private IT-company Evry. Evry drew the sample on behalf of the Norwegian Citizen Panel after relevant permissions were acquired from the Norwegian Tax Administration.

⁴ Code collected from Mike Bostocks visualization: <https://bost.ocks.org/mike/shuffle/>

The samples consisted of people over the age of 18 that were randomly drawn from the register. The extracted information was a) last name, b) first name, c) address, d) gender, e) year of birth, and f) phone number (the latter was not included in wave 1). The sample excluded persons without a current home address in Norway.

For a detailed description of the recruitment process in wave 1, wave 3, wave 8, wave 11, wave 14 and wave 16, we refer to the respective methodology reports for each wave. Note, however, that there are some differences between the recruitment processes. Please refer to table 1.

Table 1: Summary of recruitment processes

	Sample size	Mode	Contacts	Returned letters	Response Rate (%)
Recruitment 1 (wave 1)	25 000	Postal	2	546	20.1 %
Recruitment 2 (wave 3)	25 000	Postal, phone/SMS	4	543	23.0 %
Recruitment 3 (wave 8)	22 000	Postal/SMS	3	479	19.4 %
Recruitment 4 (wave 11)	14 000	Postal/SMS	2	334	15.1 %
Recruitment 5 (wave 14)	14 000	Postal/SMS	2	389	15.0 %
Recruitment 6 (wave 16)	34 000	Postal/SMS	2	994	14.9 %

CORONAVIRUS SUB-PANEL

The 7th recruitment wave (wave 18) was carried out during the summer of 2020, just prior to Fast Track 2. However, Fast Track 2 only drew respondents from a sub-sample of *Fast Track 1 respondents* (recruited in wave 1-16). Hence, the details from the latest wave of recruitment (wave 18) is not considered pertinent for this report.

Fast Track 1 was the first of three different surveys dealing with Covid-19 related questions, deployed during the spring/summer of 2020. A unique aspect of these surveys is the collection of time-series data, where individual respondents are followed over time. The second survey in this series was the 18th wave of the NCP. Note: In addition to Covid-related questions, respondents in this survey received a broad variety of differently themed survey questions. The third survey was Fast Track 2, which focused exclusively on Covid-19. The survey population in Fast Track 2 consisted of a selection of respondents⁵ who had participated in the aforementioned Covid-surveys.

In sum, 6,766 NCP panel members make up our “coronavirus sub-panel”. We will make reference to this sub-panel throughout this report.

DATA COLLECTION FAST TRACK 2

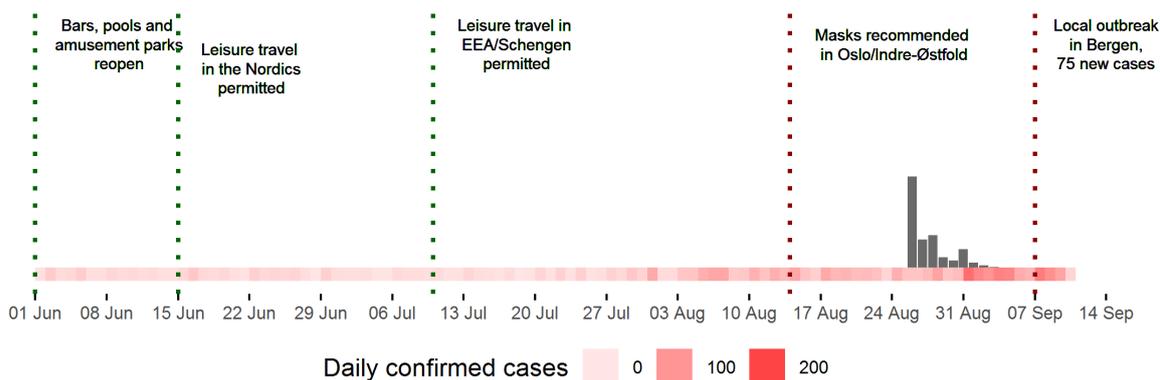
CONTEXTUAL BACKGROUND

With the outbreak of the Covid-19 pandemic of early spring 2020, a need for data on the subject prompted researchers to swiftly launch an extraordinary wave of the NCP. This first “Fast Track” survey collected data between March 20th and March 30th, in the early stages of the Norwegian lockdown. Presumably, due to heightened public interest in the topic, the survey garnered an unusually high response rate as well as attention from the media.

While the first Fast Track survey was deployed during the onset of the pandemic (with spiking infection rates and increasing death tolls both domestically and abroad), the second Fast Track survey was deployed at a time when the virus had largely been suppressed. Nevertheless, as of early fall, reports of local outbreaks of contagion in various parts of the country continue to captivate news headlines.

⁵ Only respondents who belonged to the (randomized) sub-group 2 of ft1group (psychology themed questions) or sub-group 3 or 6 of r18group (Covid-19 themed questions) were selected to receive Fast Track 2.

Figure 1: Fast Track 2 - Distribution of responses per day, with indicators of disease spread, government response and notable events⁶



In figure 1, the Fast Track 2 field period is shown alongside indicators of disease spread, government response and notable events.⁷ In short, we see that the contagion remained mostly dormant during the summer, and some restrictions were lifted. By late July, however, infection rates began to increase, prompting national and local governments to halt the easing of coronavirus restrictions.

RESPONSES BY METHOD OF DATA COLLECTION

The survey was launched on August 26th, 2020, when an invitation to participate was sent to the email addresses of 6,766 NCP panel members. Non-responses were reminded two times, on the 28th and the 31st of August. In all e-mails, the basic information about the Norwegian Citizen Panel was repeated, and the individual panel members received unique URLs that led to the questionnaire. The e-mails stressed the importance of research on public opinion during the pandemic, while also expressing understanding that some panel members might have difficulty finding the time to respond.

The field period lasted for just eight days, which is quite short compared to the normal waves which usually last two to three weeks, but also shorter than the first Covid-19 Fast Track which was in the field for eleven days.

Table 2: Responses and response rate for panel members by the different stages of data collection

	Responses	Cumulative Responses	Response Rate (%)	Cumulative Response Rate
Invitation (26th of August)	3,321	3,321	49.1%	49.1%
1st reminder (28th of August)	1,434	4,755	21.2%	70.3%
2nd reminder (31st of August)	776	5,531	11.5%	81.8%

Between the invitation and the first reminder (August 26th – 31st), 3,321 respondents completed the survey. This means that half of the responses to Fast Track 2 were made during the first couple of days. This pattern is similar to earlier waves; the invitation produces a higher number of respondents than the subsequent reminders. For details on the number of respondents after each reminder, we refer you to table 2.

In previous methodological reports, respondents that have not participated in any of the last three waves are excluded when calculating the response rate. Since all of the respondents in our gross sample fit this criterion, we calculate on the basis of 6,766 eligible respondents. The overall response rate, as reported in table 2, is **81.8 percent**.

⁶ Data from the Norwegian Institute of Public Health (<https://fhi.no/sv/smittsomme-sykdommer/corona/dags--og-ukerappporter/%20dags--og-ukerappporter-om-koronavirus>) and regjeringen.no (<https://regjeringen.no/no/tema/Koronasituasjonen/nasjonale-tiltak>). [15.09.2020]

⁷ This figure is a continuation of the timeline presented in the first Fast Track methodological report.

RESPONSE OF SUB-PANEL SINCE FAST TRACK 1

We now turn our attention the response rate of the sub-panel of respondents in subsequent waves since they participated in the first Fast Track survey in March. We calculate the retention rate by dividing the number of responses in one wave, to the number of responses in the previous wave. We remind the reader that all the respondents in the sub-panel were recruited in waves 1-16 and participated in Fast Track 1.

Table 3: Wave-to-wave retention rate (Fast Track 2 sub-panel)

	Retention rate	Responses
Fast Track 1	-	6,766
Wave 18	87.0 %	5,889
Fast Track 2	93.9 %	5,531

As we can see in table 3, the retention rate is high in wave 18 and Fast Track 2. We do find a small spike in the response rate for the second Fast Track, compared to wave 18, which was in the field for far longer and utilized more tools to increase response rates (i.e. reminders by email and SMS). On the other hand, Fast Track 2 was advertised as being a short (7 minute) survey, which presumably boosted the willingness to answer. In addition, we theorize that a survey about the ongoing pandemic serves as an extra motivation for participation.

PLATFORMS

The questionnaire was prepared for data input via smart phones. In order to enhance the respondents’ experience with the questionnaire, mobile users got a different visual representation of some questions. 46.2 percent of all respondents that opened the questionnaire used a mobile phone.

Participants must answer a certain number of survey questions to be included as a survey respondent. 1.2 percent of users failed reach this minimum requirement. We find no difference between mobile and non-mobile users in this regard.

Figure 2: Share of mobile users by gender and age in Fast Track 2

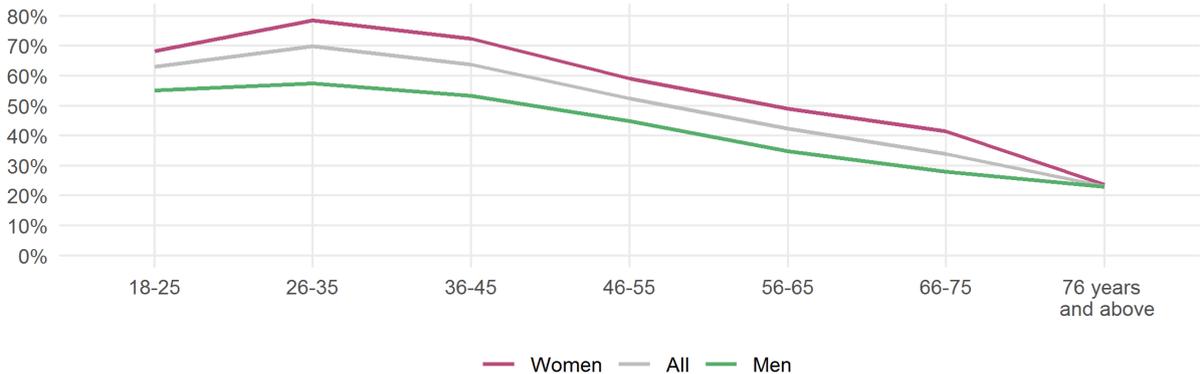


Figure 2 tells a familiar story, seen in all prior waves of the NCP: The share of mobile users is highest among respondents between 18 and 45 of age and declines noticeably with age, starting at age 46-55. Overall, women are more inclined to use a mobile phone to fill out the questionnaire than men are.

TIME USAGE

The average respondent spent just 7.6 minutes filling out the questionnaire, reflecting a shorter questionnaire than usual. This on par with what the respondents were told upon invitation. The challenge of measuring average time usage is that respondents may leave the questionnaire open in order to complete the survey

later. This idle time causes an artificially high average time for completing the survey. The average of 7.6 minutes therefore only includes the respondents who used less than, or equal to, 60 minutes.

Figure 3: Time usage of survey respondents in Fast Track 2

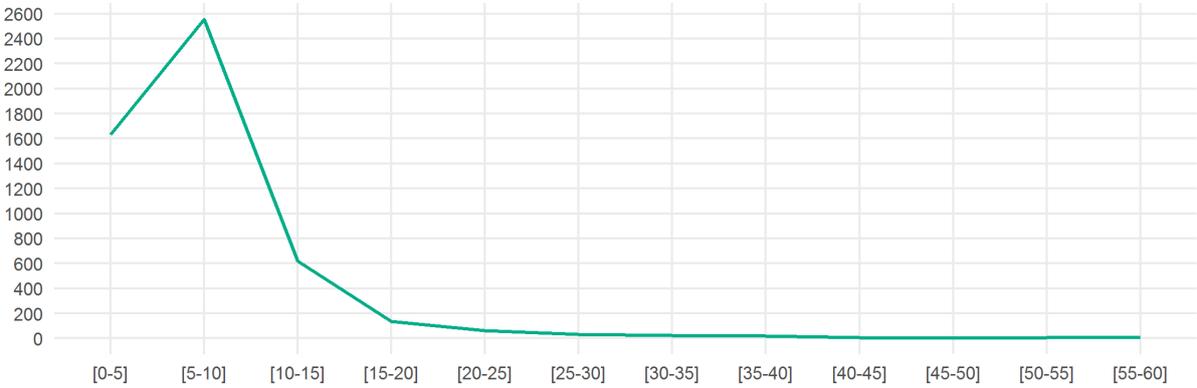


Figure 3 outlines the number of respondents who finished the survey within particular time intervals (minutes), with most respondents finishing within 10 minutes. Unlike most NCP-surveys, all respondents were asked the same questions. There were no sub-groups in Fast Track 2.

As previously observed, mobile users on average use substantially less time filling out the questionnaire, than non-mobile users. For a more in-depth comparison of mobile and non-mobile, please refer to the wave 7 methodology report.

REPRESENTATIVITY

In this section, we describe the representativity of the survey respondents, compared to the population. First, we will discuss factors explaining representativity. Thereafter we apply demographic variables to present data on representativity by different strata. The data on representativity is the foundation for the section on weighting.

FACTORS EXPLAINING LACK OF REPRESENTATIVITY

There are two main points that can serve as explanations to non-response and lack of representativity when recruiting and maintaining panel members:

- ◆ access to and familiarity with the internet (given that a web-based questionnaire was the only response mode made available)
- ◆ the motivation and interest of the respondents

The first challenge is strongly related to the age composition of the survey respondents. Although Norway has a very high computer and internet density, the probability of having an e-mail address, and the skills required to access and fill in an online questionnaire, normally decreases with increasing age. The second challenge, motivation and interest, is often explained by the respondents’ level of education. In addition to age and education, we added the variables for geography and gender in order to test the representativity of the survey respondents. The variables have the following categories:

- ◆ Age: 19-29 years, 30-59 years, 60 and above.
- ◆ Highest completed education: no education/elementary school, upper secondary, university/university college.

- ◆ Geography: Oslo/Akershus, Eastern Norway, Southern Norway, Western Norway, Trøndelag, Northern Norway.

On January 1st 2020 Norway implemented a regional reform decreasing the number of counties (“fylker”) from 18 to 11. Of note is that the county of Akershus – traditionally grouped together with Oslo in the NCP – merged with Buskerud and Østfold to form the new county of Viken. In this report, we retain the abovementioned geographical divisions with basis in the old county structure.

THE REPRESENTATIVITY OF THE NORWEGIAN CITIZEN PANEL

The sampling frame of the survey equals to the Norwegian population above the age of 18, comprising a population of approximately 4.1 million individuals. Earlier reports have documented a systematic underrepresentation of respondents belonging to the two lowest educational groups, independent of gender and age. However, the underrepresentation has been particularly strong for young men. Individuals with education from universities or university colleges are overrepresented.

From the age distribution presented in table 4, we see that people aged 18 to 29 are underrepresented in the net sample. People aged 30 to 59 are underrepresented as well, but to a smaller degree than the youngest group. As such, people of age 60 and above, are clearly overrepresented in Fast Track 2.

Table 4: Age distribution in the population and the net sample of Fast Track 2

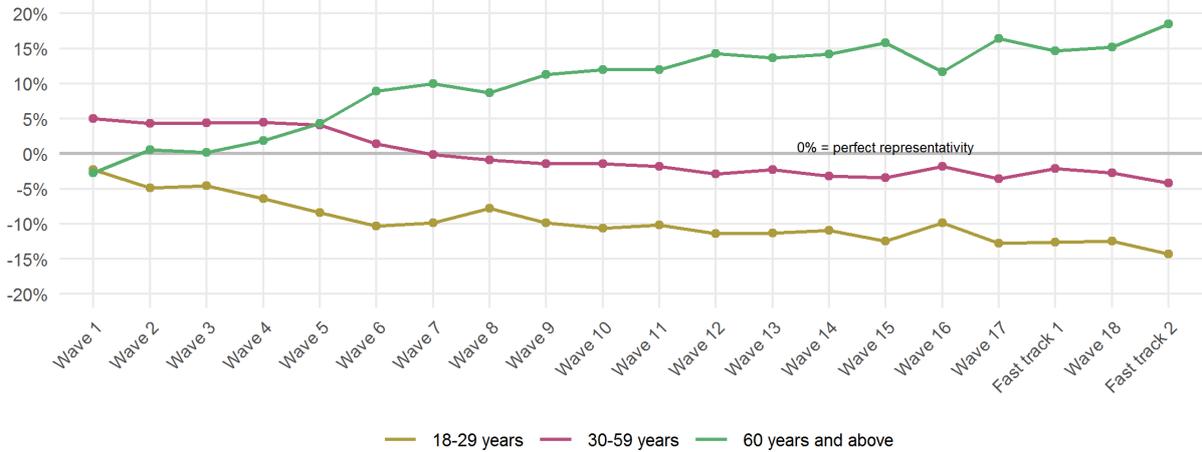
	18-29 years	30-59 years	60 years and above
Population	20.3 %	50.6 %	29.1 %
Net sample	6.0 %	46.4 %	47.6 %

We emphasize that in the following we are comparing overall statistics for all respondents in their respective wave.

Compared to previous waves, Fast Track 2 is less representative in terms of the age distribution (figure 4). Following each recruitment wave (waves 1, 3, 8, 11, 14 and 16), there is generally a tendency towards better age representativity.⁸ Since Fast Track 2 is devoid of any wave 18 recruits, the representation of all age groups is moving away from perfect representativity. Older respondents are increasingly overrepresented, while middle aged and young respondents are increasingly underrepresented.

⁸ This pattern can be explained by a difference in panel loyalty between the age brackets. While people aged 60 and above were initially underrepresented in wave 1, older respondents are more loyal to the panel, or more interested in panel participation, and have over time increasingly become overrepresented in the panel. Conversely, the youngest respondents are more likely to stop responding to the surveys and have increasingly become underrepresented.

Figure 4: Representativity of age groups from wave 1 to Fast Track 2



In table 5, the population and net sample are broken down by age and gender. This reveals a gender-age interaction in the panel representativity. Younger men are more underrepresented than younger women, while older men are more overrepresented than women in the same age bracket. Lastly, middle-aged men are underrepresented, while women in this age bracket are slightly overrepresented.

Table 5: Combined distribution of age and gender in the population and the net sample of Fast Track 2

	18-29 years		30-59 years		60 years and above	
	Men	Women	Men	Women	Men	Women
Population	10.4 %	9.9 %	26.0 %	24.7 %	13.8 %	15.4 %
Net sample	2.4 %	3.6 %	21.2 %	25.2 %	25.3 %	22.3 %

The inclusion of educational level in table 6 reveals a systematic underrepresentation of respondents with little or no education, independent of age and gender. The underrepresentation is present in all age brackets, but seems to be especially strong for young respondents.

Table 6: Combined distribution of age, gender and education in the population and the net sample of Fast Track 2

		Population		Net sample	
		Men	Women	Men	Women
No education/elementary school	18-29 years	3.8 %	2.9 %	0.2%	0.2%
Upper secondary education		4.2 %	3.3 %	1.1%	1.4%
University/university college		2.3 %	3.6 %	1.1%	1.9%
No education/elementary school	30-59 years	5.5 %	4.6 %	0.6%	0.5%
Upper secondary education		11.2 %	7.9 %	7.2%	5.6%
University/university college		9.3 %	12.2 %	13.5%	19.2%
No education/elementary school	60 and above	3.1 %	4.4 %	1.9%	1.4%
Upper secondary education		6.9 %	7.4 %	8.8%	6.9%
University/university college		3.8 %	3.6 %	14.7%	13.8%

Respondents who have upper secondary education as their highest completed education are underrepresented in all age brackets, except for men with upper secondary education aged 60 years or above. Those who have university or university college education are clearly overrepresented in the two oldest age brackets, independent of gender.

Figure 5: Representativity of education groups from wave 1 to Fast Track 2

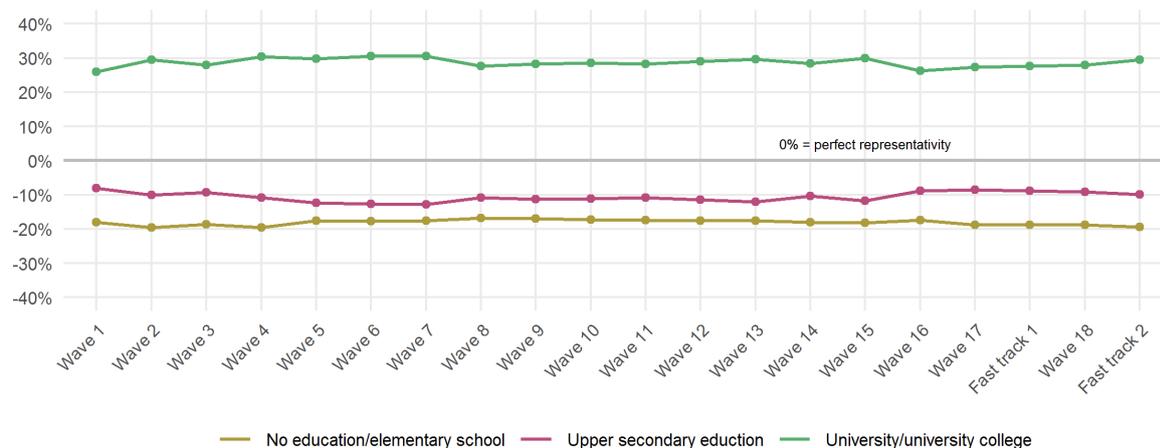


Figure 5 illustrates the representation of education groups since wave 1. The general trend is that the highly educated are overrepresented compared to those with less or no education. The overall pattern has remained stable throughout all waves.

Representativity by age, gender and geographical region is shown in table 7. The most notable bias is the 5 percentage point overrepresentation of the capital area, the county of Oslo and (former county of) Akershus. Western Norway is overrepresented as well, while Trøndelag and Southern Norway are fairly represented. Both Northern Norway and Eastern Norway are underrepresented, but Eastern Norway more so with a negative bias of 4.1 percentage points.

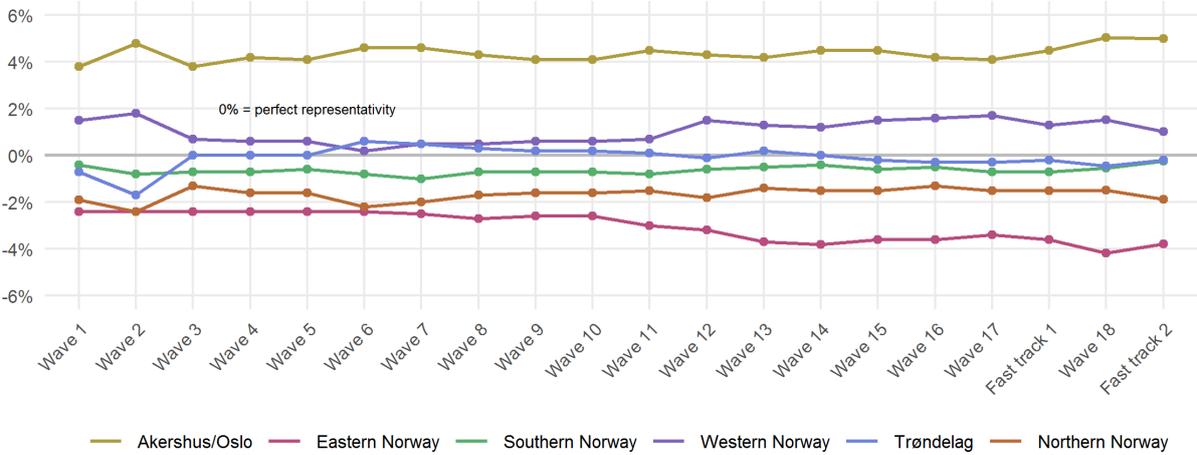
Table 7: Combined distribution of age, gender and geography in the population and the net sample of Fast Track 2

		Population			Net sample		
		Men	Women	Total	Men	Women	Total
Akershus/Oslo	18-29 years	2.6 %	2.6 %	5.2 %	0.7%	1.4%	2.0%
	30-59 years	6.8 %	6.5 %	13.3 %	6.3%	8.1%	14.3%
	60 and above	2.8 %	3.2 %	5.9 %	6.5%	6.5%	13.0%
	In total	12.1 %	12.3 %	24.4 %	13.5%	15.9%	29.4%
Eastern Norway	18-29 years	2.5 %	2.3 %	4.8 %	0.4%	0.5%	0.9%
	30-59 years	6.6 %	6.4 %	13.0 %	4.7%	5.0%	9.7%
	60 and above	4.1 %	4.6 %	8.7 %	6.4%	5.6%	12.1%
	In total	13.2 %	13.3 %	26.5 %	11.5%	11.2%	22.7%
Southern Norway	18-29 years	0.6 %	0.6 %	1.2 %	0.2%	0.1%	0.3%
	30-59 years	1.4 %	1.4 %	2.8 %	1.0%	1.4%	2.4%
	60 and above	0.8 %	0.9 %	1.7 %	1.5%	1.2%	2.7%
	In total	2.8 %	2.8 %	5.7 %	2.7%	2.8%	5.5%
Western Norway	18-29 years	2.7 %	2.6 %	5.3 %	0.5%	0.8%	1.3%
	30-59 years	6.7 %	6.2 %	12.9 %	5.8%	6.6%	12.4%
	60 and above	3.5 %	3.8 %	7.3 %	7.0%	5.9%	12.9%
	In total	12.9 %	12.6 %	25.5 %	13.3%	13.3%	26.5%
Trøndelag	18-29 years	1.0 %	0.9 %	1.9 %	0.5%	0.5%	1.0%
	30-59 years	2.2 %	2.0 %	4.2 %	2.1%	2.0%	4.1%
	60 and above	1.2 %	1.3 %	2.6 %	1.8%	1.6%	3.4%
	In total	4.4 %	4.3 %	8.7 %	4.4%	4.1%	8.5%
Northern Norway	18-29 years	1.0 %	0.9 %	1.9 %	0.2%	0.3%	0.5%
	30-59 years	2.3 %	2.1 %	4.4 %	1.3%	2.0%	3.4%
	60 and above	1.4 %	1.5 %	2.9 %	2.0%	1.6%	3.6%
	In total	4.7 %	4.6 %	9.3 %	3.5%	3.9%	7.4%

People of age 60 and above, living in Akershus or Oslo, are quite overrepresented. This group accounts for 5.9 percent of the population, while making up 13 percent of Fast Track 2 respondents. Young people in all regions

are underrepresented. Middle-aged people are slightly underrepresented in a few regions, but most notably in Eastern Norway and Northern Norway.

Figure 6: Representativity of regions from wave 1 to Fast Track 2



The representativity of the regions has more or less been unchanged from wave 1 through Fast Track 2 (figure 6). Since wave 12, Western and Eastern Norway has been trending somewhat away from perfect representativity, but the observable trends are faint. In general, geography does not seem to play the most important role in determining survey participation, at least not to the same extent as age and education.

WEIGHTING

To compensate for the observed biases, we have calculated a set of weights. The weights are equal to the relation between a given strata in the population and the total population, divided by the relation between a given strata in the net sample and the total net sample.⁹ This procedure returns values around 1, but above 0. Respondents belonging to a stratum that is underrepresented will receive a weight above 1 and respondents belonging to an overrepresented stratum will receive a weight below 1. We have listed the weights of the different strata in table 9 in the appendix.

When calculating the weights, information regarding the respondents’ geographical location, gender and age is based on registry data. Information on these variables was included in the sample file we received from the Norwegian National Registry. Information regarding the level of education is from the survey. 3 percent of the twelfth wave net sample have not answered the question about level of education. Because of this, two different weights have been calculated:

- ◆ **Weight 1** is based on demographic variables only (age, gender and geography)
- ◆ **Weight 2** combines the demographic variables with education. Respondents with missing data on the education variable are only weighted on demography (the education component of the weight is in these cases set to 1).

The variables have the following categories:

- ◆ **Age:** 19-29 years, 30-59 years, 60 and above.
- ◆ **Highest completed education:** no education/elementary school, upper secondary, university/university college.

⁹ The applied formula for weight w_i for element i , in strata h is: $w_i = \frac{N_h/N}{n_h/n}$

- ◆ **Geography:** Oslo/Akershus, Eastern Norway, Southern Norway, Western Norway, Trøndelag, Northern Norway.

The method for calculating weights is the same as in previous waves.

When applied, both weights will provide a weighted N equal to the number of respondents in the dataset.

As shown in the discussion above, of the factors considered, level of education creates the most bias. We therefore recommend using weight 2 in most statistical analyses, as this weight provides the most accurate compensation for the various sources of bias in the net sample. Table 8 shows the effects of weight 2 on the distribution of self-reported level of education in the net sample. As we can observe, the weight gives the sample a near perfect distribution compared to the population. It is however important to stress that the distribution when not weighted is far from ideal, with a clear underrepresentation of the population with low levels of education.

Table 8: Effect of weight 2 on self-reported level of education

	Sample - not weighted	Sample - weighted	Population	Difference between sample and population	Difference between weighted sample and population
No education/elementary school	4.8%	23.4%	24.3%	-19.5%	-0.9%
Upper secondary education	30.9%	41.4%	40.9%	-10.0%	0.5%
University/university college	64.2%	35.2%	34.8%	29.4%	0.4%

APPENDIX

Table 9: Weights applied to different strata (weight 2)

		Men	Women			Men	Women		
Oslo/Akershus	18-29 years	No education/elementary school	45.0	8.8	Western Norway	18-29 years	No education/elementary school	13.3	41.1
		Upper secondary education	4.5	1.7			Upper secondary education	6.6	3.5
		University/university college	2.0	1.5			University/university college	2.5	1.9
	30-59 years	No education/elementary school	10.4	20.1		30-59 years	No education/elementary school	7.7	15.0
		Upper secondary education	1.4	1.2			Upper secondary education	1.6	1.3
		University/university college	0.7	0.6			University/university college	0.6	0.6
	60 and above	No education/elementary school	1.5	2.0		60 and above	No education/elementary school	1.2	3.0
		Upper secondary education	0.7	0.8			Upper secondary education	0.7	1.0
		University/university college	0.2	0.3			University/university college	0.2	0.2
Eastern Norway	18-29 years	No education/elementary school	19.1	14.2	Trøndelag	18-29 years	No education/elementary school	6.2	-
		Upper secondary education	6.3	2.6			Upper secondary education	1.4	1.9
		University/university college	2.9	4.8			University/university college	1.9	1.0
	30-59 years	No education/elementary school	8.8	7.5		30-59 years	No education/elementary school	5.5	5.9
		Upper secondary education	1.5	1.9			Upper secondary education	1.5	2.1
		University/university college	0.8	0.7			University/university college	0.5	0.6
	60 and above	No education/elementary school	1.9	4.6		60 and above	No education/elementary school	1.8	2.7
		Upper secondary education	0.9	1.3			Upper secondary education	0.9	1.5
		University/university college	0.3	0.3			University/university college	0.3	0.3
Southern Norway	18-29 years	No education/elementary school	-	4.8	Northern Norway	18-29 years	No education/elementary school	-	-
		Upper secondary education	3.7	11.6			Upper secondary education	2.5	1.7
		University/university college	1.0	2.5			University/university college	4.5	3.9
	30-59 years	No education/elementary school	15.7	5.0		30-59 years	No education/elementary school	10.4	4.5
		Upper secondary education	1.3	1.2			Upper secondary education	2.7	1.3
		University/university college	1.0	0.6			University/university college	0.8	0.7
	60 and above	No education/elementary school	1.4	6.3		60 and above	No education/elementary school	2.2	4.2
		Upper secondary education	1.0	1.1			Upper secondary education	0.8	2.0
		University/university college	0.2	0.3			University/university college	0.3	0.3