

Dutch Parliamentary Election Study 2021

A comparison of two survey modes

Romy Nefs

Marcel Lubbers

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1. Introduction

Since 1971, the Dutch Parliamentary Election Study (DPES) has relied on face-to-face interviewing as the main mode of data collection. However, in 2017 edition, web-based interviews of a fresh probability sample and web-based interviews of an ongoing internet panel were added. The data quality of these two methods was compared to the data generated by the face-to-face interviews. The report concluded that *“The results in this [2017] report ... suggest that the most promising way forward for the DPES is to move to a mixed-mode design, which has self-completion as the mode, and which combines respondents who were recruited from a fresh probability sample with others who were recruited from an ongoing internet panel”*.

In 2021, the design of the Dutch Parliamentary Election Study followed this recommendation and included the following modes:

- LISS-panel: Web-based interviews of the ongoing LISS-panel, that is originally based on a random sample, and frequently refreshed to repair distortions in representatives due to panel attrition.
- CAWI/PAPI: Web-based interviews of a fresh probability sample, derived from Statistics Netherlands, approached by fieldwork company CAWI/PAPI-research and the opportunity offered to fill out a questionnaire by paper and pencil.

To obtain insights in the quality of the two respective samples, we compare the two different modes on their representativeness. Moreover, we investigate whether there are differences between the LISS-panel data and the CAWI/PAPI data on item-non response, and means and variances in some of central items for which mode-effects had been tested in 2017 report.

2. Research description

In 2021, as opposed to 2017, both a pre- and post-election survey have been administered. In addition to differences in the sample frame between the CAWI-mode and LISS-panel mode (fresh probability sample versus ongoing panel), the CAWI-mode and LISS-panel mode have implemented the post-election survey slightly different. In the CAWI-mode, only respondents who participated in the pre-election survey and agreed to be approached again after the election were invited to participate in the post-election survey, whereas in the LISS-panel-mode, all panel-respondents selected as sample for DPES 2021 were invited in both the pre- and post-elections survey. LISS-panel respondents could thus have participated in the post-election survey only.

Besides the CAWI-mode, the optional PAPI-mode was added, with the assumption that for some respondents that would be a preferred option and potentially could increase the response rate. Statistics Netherlands drew a fresh, representative, sample from the Dutch eligible to vote. This sample was approached by CAWI/PAPI-research. The first invitation letter asked invitees to fill out the questionnaire online. In a second invitation, the printed questionnaire was sent along, inviting the sample to either fill out the questionnaire online or by paper and pencil. A third and fourth reminder were also sent. Potential respondents were offered a small incentive of €5 in all invitations. In 2017, this incentive was €10 for the first and second invitation, which was increased to €15 in the third invitation and to €20 in the fourth invitation.

The LISS-panel mode mirrored the design of the DPES 2017. This second group of participants “consisted of members of the ongoing ‘LISS-panel’ (Langlopende Internet Studies voor de Sociale Wetenschappen). The LISS-panel is managed by research agency CentERdata and consists of 5,000 households. These households were selected on the basis of probability sampling by Statistics Netherlands (CBS) to obtain a nationally representative sample. The members of the LISS-panel participate in regular online questionnaires over an extended period of time. The DPES [2021] was likewise administered in the LISS-panel using a web-based survey (CAWI).” (Rekker et al., 2020, p. 6).

3. Non-response

Key findings

- *Response in CAWI/PAPI mode in 2021 is 4 percent-points lower than in 2017*
- *LISS-panel response in 2021 equal to that in 2017*

For the CAWI-mode, it was estimated that the response would be comparable to the 2017-CAWI-mode response rate of ~40%, and Statistics Netherland we asked to draw a random sample of 6600 individuals eligible to vote. The response rate was, however, lower than anticipated, and stuck at 36.3%. Of the total number of respondents, 21.5% filled out the questionnaire on paper. From the 2,396 respondents who participated in the pre-election survey, 90.9% agreed on being approached once more with an invitation in the post-election survey. In total 1,688 respondents participated in the post-election survey, which is 25.6% from the fresh probability sample and 77.5% that was eligible to be approached again for an invitation in the post-election survey. In the post-election survey, the sample was approached by e-mail first and only in a second invitation by regular mail as well, in which a printed version of the questionnaire was included. In the post-election survey 7.5% of the respondents filled out the questionnaire on paper.

In an online LISS-panel, the response is not much informative, since the panel is composed of households that agreed to participate in surveys. At the start of the LISS panel in 2006, the response was 48%. LISS reports that the monthly response rate (since every month a part of the panel is invited to fill out a questionnaire) is between 50% and 80%. In this DPES survey the response among the LISS-panel was 78% in the pre-election survey and around 75% in the post-elections surveys. In 2018, when only a pre-election survey was administered, the response was comparably high at 78%.

Table 1. Response by survey mode

	CAWI/PAPI	LISS-panel
Selected respondents	6600	2797
Positive response received pre-election	2396 (36.3%)	2191 (78.3%)
- From which PAPI	514 (21.5%)	
- From which CAWI	1882 (78.5%)	
Positive response received post-election (1)	1688 (25.6%)	2105 (75.3%)
- From which PAPI	127 (7.5%)	
- From which CAWI	1561 (92.5%)	
Positive response received post-election (2)		2119 (75.8%)

Table 2. Response in the post-election CAWI/PAPI survey as share of potential number of participants based on the pre-election survey.

	CAWI/PAPI
Selected respondents after the pre-election	2179
Positive response received pre-election	1688 (77.5%)

4. Representativeness

Key findings

- *Overall, the CAWI/PAPI data gave a better representation of the overall population than the LISS data*
- *However, the LISS data provided a better representation on vote choice than the CAWI/PAPI data*
- *Both samples showed significant differences from the population in key variables, such as vote choice, gender, age, marital status, and country of origin*

One of the key aspects of the DPES has always been to provide a sample that represents the Dutch electorate. During most of its previous rounds, the DPES has used a fresh probability sample drawn by Statistics Netherlands (CBS). Using this sampling method, every Dutch citizen eligible to vote has an equal chance of being selected. Hence, disparities between the selected sample and the population can only be a result of *selective non-response*, which can be defined as that issue that people who decline to participate in a survey usually differ from those who participate on important characteristics. For example, people who do not intend to vote may be less inclined to participate in a survey on parliamentary elections.

During the recent round of the DPES, an additional sample was recruited from the ongoing LISS internet panel. Opposed to a fresh probability sample, using an online internet panel may suffer from *selective panel attrition*. Participants with certain characteristics will be more likely to stop participating in an ongoing panel after a certain amount of time. Originally, the LISS-sample was recruited with a probability sample from Statistics Netherlands. However, the respondents who dropped out over the years had to be replaced. The LISS-panel gave participants without a computer or Internet access the possibility to lend an easy-to-use computer with free Internet-access.

Table 3 compares the participants in the CAWI/PAPI model and LISS-panel model with the population figures provided by Statistics Netherlands during the pre-election round of both surveys.

Table 3. Representativeness in the pre-election survey

	Population	CAWI/PAPI Pre-Election						LISS Pre-Election					
		Response	Relative Distortion	Absolute Distortion	χ^2	df	p-value	Response	Relative Distortion	Absolute Distortion	χ^2	df	p-value
Gender					2.465	1	.116				12.098	1	<.001
Men	49.4	51.0	103.2	1.6				45.7	92.5	-3.7			
Women	50.6	49.0	96.8	-1.6				54.3	107.3	3.7			
Other	n.a.	0.1						0.0					
Age					25.305	6	<.001				132.65	6	<.001
18-24	10.7	9.3	86.9	-1.4				6.5	60.7	-4.2			
25-34	14.8	14.3	96.6	-0.5				12.3	83.1	-2.5			
35-44	14	13.5	96.4	-0.5				13.6	97.1	-0.4			
45-54	17.3	15.8	91.3	-1.5				15.0	86.7	-2.3			
55-64	17.8	19.6	110.1	1.8				18.9	106.2	1.1			
65-74	14.8	17.6	118.9	2.8				22.0	148.6	7.2			
75+	10.6	9.9	93.4	-0.7				11.7	110.4	1.1			
Urbanization					6.028	4	0.200				784.40	4	<.001
Very high	24	22.2	92.5	-1.8				17.5	72.9	-6.5			
High	30.6	30.4	99.3	-0.2				21.5	70.2	-9.1			
Medium	15.2	15.3	100.7	0.1				18.8	123.7	3.6			
Low	22.5	24.1	107.1	1.6				19.2	85.3	-3.3			
Very low	7.7	7.7	100.0	0				23.0	298.7	15.3			
Region	0				4.365	3	.225						
North	10.4	11.1	106.7	0.7									
East	21.5	21.2	98.6	-0.3									
West	46.6	44.9	96.4	-1.7									
South	21.5	22.7	105.6	1.2									
Marital state	0				121.09	3	<.001				78.903	3	<.001
Married	48.3	59.6	123.4	11.3				56.3	116.6	8.0			
Divorced	10	7.2	72.0	-2.8				11.2	112.0	1.2			
Widowed	6	4.8	80.0	-1.2				5.9	98.3	-0.1			

Single	35.7	28.4	79.55182	-7.3				26.6	74.5	-9.1			
Country of origin					94.009	2	<.001				27.593	2	<.001
Dutch origin	81.7	88.5	108.3	6.8				81.6	99.9	-0.1			
Western origin	7.3	2	27.4	-5.3				9.7	132.9	2.4			
Non-western origin	11	4.5	40.9	-6.5				8.7	79.1	-2.3			
Average distortion:			2.4%						4.2%				

Table 4. Representativeness in the post-election survey

	Population	CAWI/PAPI Post-Election						LISS Post-Election					
		Response	Relative Distortion	Absolute Distortion	χ^2	df	p-value	Response	Relative Distortion	Absolute Distortion	χ^2	df	p-value
Vote choice					259.26	18	<.001				169.79	18	<.001
VVD	17.1	21.0	123	3.9				18.6	108.8	1.5			
D66	11.8	18.1	153	6.3				14.9	126.3	3.1			
PVV	8.5	6.0	70.6	-2.5				7.2	84.7	-1.3			
CDA	7.5	8.1	108	0.6				9.6	128.0	2.1			
SP	4.7	5.9	126	1.2				6.5	138.3	1.8			
PvdA	4.5	6.5	144	2.0				7.3	162.2	2.8			
Groenlinks	4.0	6.5	163	2.5				5.4	135.0	1.4			
Forum voor Democratie	3.9	2.9	74,4	-1.0				2.3	59.0	-1.6			
Partij voor de Dieren	3.0	4.7	157	1.7				3.8	126.7	0.8			
ChristenUnie	2.6	3.7	142	1.1				4.0	153.8	1.4			
Volt	1.9	3.4	179	1.5				2.7	142.1	0.8			
JA21	1.9	2.2	116	0.3				2.9	152.6	1.0			
SGP	1.6	1.6	100	0.0				1.7	106.3	0.1			
DENK	1.6	0.5	31.3	-1.1				0.5	31.3	-1.1			
50PLUS	0.8	1.6	200	0.8				0.9	112.5	0.1			
BBB	0.8	0.5	62.5	-0.3				0.4	50.0	-0.4			
BIJ1	0.7	0.6	85.7	-0.1				0.6	85.7	-0.1			
Other Party or Blank	1.9	1.6	84.2	-0.3				1.5	78.9	-0.4			
Did not vote	21.3	4.5	21.1	-16.8				9.3	43.7	-12.0			
Gender					5.264	1	.022				16.465	1	<.001

Men	49.4	52.2	105.7	2.8				45.2	91.5	-4.2			
Women	50.6	47.8	94.5	-2.8				54.8	108.3	4.2			
Age					37.079	6	<.001				121.39	6	<.001
18-24	10.7	9.1	85	-1.6				7	65.4	-3.7			
25-34	14.8	13.9	93.9	-0.9				12.4	83.8	-2.4			
35-44	14	14	100	0				13.4	95.7	-0.6			
45-54	17.3	15.4	89	-1.9				15.2	87.9	-2.1			
55-64	17.8	19.4	109	1.6				19.3	108.4	1.5			
65-74	14.8	18.8	127	4.0				21.6	145.9	6.8			
75+	10.6	8.5	80.2	-2.1				11.2	105.7	0.6			
Urbanization					1.168	4	0.883				774.55	4	<.001
Very high	24	23.2	96.7	-0.8				17.2	71.7	-6.8			
High	30.6	30.8	100.7	0.2				21.2	69.3	-9.4			
Medium	15.2	14.8	97.4	-0.4				19	125.0	3.8			
Low	22.5	23	102.2	0.5				19.3	85.8	-3.2			
Very low	7.7	8.2	106.5	0.5				23.3	302.6	15.6			
Region	0				2.696	3	.441						
North	10.4	11.3	108.7	0.9									
East	21.5	21	97.7	-0.5									
West	46.6	45.3	97.2	-1.3									
South	21.5	22.4	104.2	0.9									
Marital state	0				88.012	3	<.001				85.545	3	<.001
Married	48.3	59.8	123.8	11.5				56.7	117.4	8.4			
Divorced	10	7.6	76	-2.4				11.2	112.0	1.2			
Widowed	6	4.7	78.3	-1.3				6.2	103.3	0.2			
Single	35.7	27.9	78.2	-7.8				25.9	72.5	-9.8			
Country of origin					89.99	2	<.001				30.715	2	<.001
Dutch origin	81.7	89.5	109.5	7.8				81.5	99.8	-0.2			
Western origin	7.3	6.6	90.4	-0.7				9.8	134.2	2.5			
Non-western origin	11	3.9	35.5	-7.1				8.7	79.1	-2.3			
Average distortion:			2.4%							3.1%			
Aver. distort. vote choice:			2.3%							1.7%			

Notes: Green: Less than 2.5%; Orange: 2.5% - 5.0%. Red: More than 5%.

Table 4 provides similar data on the post-election survey of both sampling methods. The first column with numbers shows the percentages on each key variable within the population. The tables furthermore indicate the distributions on key variables in both survey modes during the pre- and post-election survey, as well as their relative and absolute distortion from the population. A chi-squared test was performed to determine whether these differences were significant.

Overall, the CAWI/PAPI survey mode shows a slightly better representation of the population, with an average distortion of 2.4% compared to 4.2% in the LISS-mode in the pre-election survey. This difference is slightly less in the post-election survey, where the average distortion of the LISS-mode is 3.1%. Remarkably, the average distortion on vote choice is lower in the LISS sample than in the CAWI/PAPI-sample (1.7% and 2.3% respectively), indicating that the former has a better average representativeness when it comes to vote choice.

Inspecting the core variables closer, several points stand out. Non-voters are underrepresented in both survey modes, but more so in the CAWI/PAPI sample. A possible explanation might be that long time LISS-panel members have more experience participating in surveys even though their interest in the subject is low, whereas participants in the CAWI/PAPI sample were part of a onetime probability sample and were thus likely to have less experience participating in surveys. A second remarkable aspect is the severe overrepresentation of participants living in environments with very low urbanization in the LISS-panel data, which is exaggerated as compared to the 2017 situation, when this already was the case. The LISS-sample significantly differs from the population on the urbanization variable whereas the CAW/PAPI-sample data does not. There is furthermore a lack of participants who are single in both survey modes. Married respondents are overrepresented in both data sets. Lastly, the LISS-panel shows better representativeness on the key variable country of origin. In the CAWI/PAPI data set, participants of Dutch origin are overrepresented, whereas participants from non-western origin are underrepresented. In the LISS-data, those of a Dutch origin are slightly underrepresented, while those of a Western-origin are overrepresented.

To conclude, the CAWI/PAPI data show a better overall representation of the Dutch electorate. However, the LISS data provides a lower average distortion in vote choice

5. CAWI versus PAPI-differences in response

Key findings

- *Mainly older respondents make use of the written questionnaire*

In the CAWI approach, an option was given to complete the questionnaire on paper, with the idea that this could improve the response rate. Only the CAWI option was offered in the first invitation to participate. The paper questionnaire was sent with the first reminder to give the additional option of PAPI. Although it is uncertain whether respondents who completed the questionnaire on paper would not have done so online if they had not had the PAPI option, we nevertheless show here which groups of respondents prefer to complete the questionnaire on paper (PAPI).

In Table 5 we can see that, as expected, the main differences between CAWI and PAPI-response is by age. Older respondents are clearly overrepresented in the PAPI response. Characteristics that correlate with age (such as marital status and vote choice for certain parties) also show this overrepresentation in the PAPI-response. In the CAWI/PAPI mode in total, there is an underrepresentation of 75+ respondents (see Table 3). The PAPI-mode seems to be effective to have reduced this underrepresentation. At the same time, it might have affected a stronger overrepresentation of the respondents aged 65-74 than would have been the case without the PAPI-option.

Table 5. Differences in representation in the CAWI versus PAPI response.

	Population	CAWI Response in pre-election	PAPI Response in pre-election
Gender			
Men	49.4	51.6	48.6
Women	50.6	48.3	51.4
Other	n.a.	0.1	0.0
Age			
18-24	10.7	10.6	4.3
25-34	14.8	16.2	6.4
35-44	14	14.8	8.2
45-54	17.3	16.8	11.3
55-64	17.8	20.0	16.9
65-74	14.8	14.6	27.2
75+	10.6	7.1	25.7
Urbanization			
Very high	24	22.0	23.0
High	30.6	31.2	27.4
Medium	15.2	15.6	14.2
Low	22.5	23.0	28.2
Very low	7.7	8.2	7.2
Region			
North	10.4	11.3	10.5
East	21.5	21.7	19.5
West	46.6	44.7	45.5
South	21.5	22.3	24.5
Marital state			
Married	48.3	58.5	63.5
Divorced	10	6.5	9.6
Widowed	6	3.6	9.4
Single	35.7	31.4	17.4

Country of origin			
Dutch origin	81.7	88.1	90.0
Western origin	7.3	6.7	6.0
Non-western origin	11	5.1	3.9
Vote choice in post-election			
VVD	17.1	20.9	21.3
D66	11.8	18.3	17.3
PVV	8.5	5.7	7.6
CDA	7.5	8.0	8.7
SP	4.7	5.6	7.2
PvdA	4.5	6.3	7.2
Groenlinks	4.0	6.9	4.3
Forum voor Democratie	3.9	2.8	3.6
Partij voor de Dieren	3.0	4.7	4.3
ChristenUnie	2.6	3.6	4.0
Volt	1.9	3.6	2.2
JA21	1.9	2.5	0.7
SGP	1.6	1.7	1.1
DENK	1.6	0.4	1.1
50PLUS	0.8	1.2	3.6
BBB	0.8	0.6	0.0
BIJ1	0.7	0.6	0.4
Other Party or Blank	1.9	1.7	2.6
Did not vote	21.3	4.9	2.9

6. Drop-out between pre- and post-election surveys

Key findings

- Respondents that participated in the PAPI mode and were older dropped out more often
- Political disinterest drove to a large extent drop-out

Between the pre- and post-elections survey (panel) drop-out occurred, which is unlikely to be random. A comparison between tables 3 and 4 gives some indication. Table 6, however, presents directly the drop-out between the waves in the CAWI/PAPI mode by demographics. Moreover, we add here vote preference in the pre-election and political interest as indicated in the pre-election survey. We cannot disentangle between respondents who indicated at the end of the pre-election survey that they did not want to be approached again and respondents who did agree to be approached once more for the post-election survey, but did not respond to the invitation.

There is a clearly higher drop-out among respondents who participated in the pre-election survey on paper (PAPI) (42.5%) as compared to those who used the CAWI-mode in the pre-election survey (26.0%). This is mirrored by the stronger drop-out by the respondents aged 75+ (40.2%). Respondents were asked for their email at the end of the pre-election survey and were invited for the post-election survey first via email. Respondents without email address and those who did not respond to the email-invitation were sent an invitation by letter by regular mail and followed by the printed version of the questionnaire.

High drop-out also occurred among respondents with a migration background from Africa, Asia or Latin-America (43.5%). Drop-out rates are further strongly associated with vote preference and political interest. In particular political disinterest is related to drop-out. From those who indicated to have no interest in politics in the pre-election survey, 40.5% dropped out, whereas this was only 18.8% among those with very much interest. This is also seen in the drop-out by party-preference, as among those who indicated not willing to go to vote, 48.9% dropped out. Respondents who did not want to tell their vote preference also dropped out relatively often (46.7%). Higher than average drop-out rates are also found among respondents who did not know what to vote for (33.3%) and among voters who opted for PVV (34.2), FvD (38.5) and SGP (37.8).

Table 6. Participation in pre-election survey only survey by characteristics

	Participated in pre-election survey only
All	29.5
CAWI/PAPI in pre-election	
CAWI	26.0
PAPI	42.4
Gender	
Men	27.9
Women	31.2
Age	
18-24	30.8
25-34	30.6
35-44	25.9
45-54	30.5
55-64	29.4

65-74	23.4
75+	40.2
Urbanization	
Very high	25.4
High	27.8
Medium	30.9
Low	32.0
Very low	27.4
Region	
North	27.6
East	29.6
West	28.0
South	29.8
Marital state	
Married	28.9
Divorced	24.9
Widowed	31.6
Single	30.3
Country of origin	
Dutch origin	28.1
Western origin	29.0
Non-western origin	43.5
Political interest in pre-election	
Very much	18.8
Fairly	29.0
Not	40.5
Vote preference in pre-election (n>=25)	
VVD	24.2
D66	23.1
PVV	34.2
CDA	30.9
SP	25.2
PvdA	26.3
Groenlinks	23.6
Forum voor Democratie	38.5
Partij voor de Dieren	26.8
ChristenUnie	23.8
JA21	24.0
SGP	37.8
Would not go to vote	48.9
Don't want to tell	46.7
Really don't know	33.3

7. Item non-response

Key findings

- *Those who participated in the LISS-panel-mode were more likely to use the ‘Don’t know’ option compared to those who participated in the CAWI/PAPI-mode*
- *Those who participated in the LISS-panel-mode were more likely to use the ‘Won’t say’ option compared to those who participated in the CAWI/PAPI-mode*
- *Those who participated in the CAWI/PAPI-mode were more likely to use the centre-category option compared to those who participated in the LISS-panel-mode, with the exception of the sympathy scores, on which those who participated in the LISS-panel-mode were more likely to use the centre categories*

Unit non-response refers to the phenomenon in which respondents do not participate in the entire survey. However, participating respondents might also be unwilling or unable to answer specific questions. Almost all questions in the DPES 2021 included a ‘don’t know’ and ‘won’t say’ option. However, it is possible that participants simply use the ‘don’t know’ or ‘won’t say’ option in order to finish the survey more quickly or easily, while actually being able to answer the question. In this case, the research might suffer from a high level of *item non-response*.

Table 7 gives an overview of the percentages of ‘don’t know’ and ‘won’t say’ answers given in both the CAWI/PAPI-mode and the LISS-panel-mode. Participants who might not know the answer but feel uncomfortable to admit this by using either of these options, will be more likely to use the centre category. Hence, we also included the percentages for the centre categories (e.g., the middle of the range of scores. For example, a score of 4 on a scale from 1 to 7). The exceptions are the measures on external and internal efficacy, which did not have a centre category.

Generally, respondents of the LISS-panel-mode were more likely to use the ‘don’t know’ option than the respondents of the CAWI/PAPI-mode (8.0% versus 5.4%) and the ‘won’t say’ option (1.6% versus 1.0%). The centre category was more prevalent among those who participated in the CAWI/PAPI survey than those who participated in the LISS-panel-mode (19.6% versus 18.4%). Remarkably, the use of the centre category among the CAWI/PAPI participants was only higher than those of the LISS participants for the core variables (30.0% versus 26.7%), while the opposite was true for the sympathy scores (8.8% versus 10.2%). Noteworthy is the high number of participants answering ‘don’t know’ on the questions regarding external efficacy, which were also found in the previous DPES 2017 (Rekker et al., 2017). Possibly, the lack of a centre category forces people who neither agree nor disagree on these items to indicate the ‘don’t know’ category. Generally, however, the number of participants providing no answer consisted of a small minority in both survey modes.

Table 7. Item non-response

Core Variables	Don't know		Won't say		Center Category	
	CAWI/PAPI	LISS	CAWI/PAPI	LISS	CAWI/PAPI	LISS
V024: Interested in politics	1.0%	1.3%	0.3%	0.6%	69.0%	50.1%
V083: Satisfaction with government	2.3%	3.2%	0.2%	0.9%	37.8%	33.7%
V098: Income differences – p. resp	11.3%	13.3%	2.7%	1.8%	21.9%	20.7%
V108: European unification – p resp.	12.5%	17.2%	1.6%	1.3%	20.2%	19.0%
V118: Foreigners – p. resp.	5.9%	10.6%	1.2%	1.6%	19.6%	19.4%
V133: Left- right self-rating	11.5%	13.0%	2.6%	2.5%	13.0%	12.4%
V252 until V254: External efficacy (A)	10.4%	14.9%	0.5%	1.3%	NA	NA
V258 and V259: Internal efficacy (A)	5.2%	5.0%	0.4%	0.7%	NA	NA
V260 until V262: Political cynicism (A)	2.0%	5.1%	0.2%	0.4%	30.6%	31.5%
Sympathy Scores						
V200: Sympathy score:VVD	2.7%	5.9%	1.0%	1.8%	7.8%	8.1%
V201: Sympathy score: PvdA	5.0%	8.3%	0.9%	2.1%	11.0%	11.1%
V202: Sympathy score: PVV	2.4%	5.8%	1.0%	1.8%	5.7%	7.1%
V203: Sympathy score:CDA	3.9%	7.4%	1.0%	2.0%	11.0%	13.8%
V204: Sympathy score: SP	5.5%	8.8%	0.9%	2.0%	10.3%	11.8%
V205: Sympathy score: D66	3.7%	6.8%	1.0%	2.0%	6.7%	9.4%
V207: Sympathy score: GroenLinks	4.0%	7.6%	0.9%	2.0%	9.4%	9.9%

Notes: Don't know and won't say:

Green: Less than 5%

Orange: Between 5% and 10%

Red: More than 10%

A: Average across items

NA: Response scale without centre category

Centre scores were available for the second internal efficacy score (V259) and were 12.3% and 20.5% for the CAWI/PAPI and LISS mode respectively.

8. Means

Key findings

- *There were some large differences in mean scores between the CAWI/PAPI survey mode and the LISS survey mode*
- *The largest differences in means between the CAWI/PAPI survey mode and the LISS survey mode were on the items measuring external efficacy, internal efficacy and European unification*
- *The means of the sympathy scores were generally lower among respondents participating in the LISS survey mode*

Whereas the CAWI/PAPI survey consisted of a fresh probability sample, the LISS data was gathered from an ongoing internet panel that is originally based on a random probability sample of Dutch households. The differences between the sampling methods may have affected the outcomes of the survey. Hence, the mean scores on the variables may differ between the CAWI/PAPI data and LISS data.

The differences in mean scores between the interview modes are shown in table 8. The LISS data is compared to the CAWI/PAPI data, which serves as a reference category. The standardized scores (i.e., z-scores) for key variables in the survey were calculated. A score of +.10 indicates that the z-score of the LISS panel data was 0.10 higher than in the CAWI/PAPI data.

The results indicate that there are modest to large differences in means between the LISS-panel and CAWI/PAPI-mode data. There were large difference on five of the sixteen variables, while there were little to no differences on only four of the key variables. The direction of the differences varied between the items. For example, the respondents in the LISS data generally scored lower on external efficacy, but higher on internal efficacy. However, the sympathy scores for the parties were generally lower among members of the LISS panel than among those of the CAWI/PAPI data.

Comparing the findings to the 2017 results, we see that the differences in means are larger in the 2021 DPES than in 2017. For the core variables these go into the same direction. The difference in political interest (+.20) is exceptionally large (and also reversed in effect) compared to the 2017 scores (-.03). As for the sympathy scores, the LISS-panel respondents scored *higher* in 2017 than the CAWI/PAPI respondents, whereas they scores generally lower in the 2021 data.

Table 8. Means and variances

Core Variables (original coding)	Coding	Means Effect of LISS-panel mode on standardized scores	Variances Effect of LISS-panel mode on absolute standardized scores
V024: Interested in politics	Higher score: less interested	+0.20***	+0.20***
V083: Satisfaction with govern.	Higher score: less satisfied	+0.14***	+0.01
V098: Income differences – p. resp	Higher score: differences should be smaller	+0.08*	-0.07***
V108: European unification – p resp.	Higher score: unification gone too far	+0.24***	-0.03
V118: Foreigners – p. resp.	Higher score: more adjustment	-0.06*	-0.05**
V133: Left- right self-rating	Higher score: right-wing	+0.03	-0.04
V252 until V254: External efficacy (A)	Higher score: more efficacy	-0.33***	+0.04**
V258 and V259: Internal efficacy (A)	Higher score: less efficacy	+0.21***	+0.06**
V260 until V262: Political cynicism (A)	Higher score: more cynicism	+0.10***	+0.00
Sympathy Scores			
V200: Sympathy score: VVD	Higher score, more sympathy	+0.00	-0.02
V201: Sympathy score: PvdA		-0.10**	+0.05*
V202: Sympathy score: PVV		+0.05	+0.05
V203: Sympathy score: CDA		-0.09*	-0.00
V204: Sympathy score: SP		-0.10**	-0.00
V205: Sympathy score: D66		-0.13***	-0.00
V207: Sympathy score: GroenLinks		-0.19***	+0.02

Notes: Reference category is the CAWI/PAPI survey mode.

*: p<.05

**.: p<.01

***.: p<.001

Green: $-0.07 \leq \text{score} \leq -0.07$

Orange: $-0.14 \leq \text{score} \leq -0.08$ or $0.08 \leq \text{score} \leq 0.14$

Red: $-0.15 \leq \text{score}$ or $\text{score} \leq 0.15$

9. Variances

- *There were few differences in variances between the CAWI/PAPI data and the LISS panel data*
- *Political interest showed, however, more variance in the LISS-panel-mode than in the CAWI/PAPI-mode*

Besides affecting the mean scores in general, the sampling method may affect the scores of some respondents or groups. Therefore, the variation of the scores (i.e., the variance) may be higher on some items in one survey mode compared to the other. Whereas differential mean scores do not affect the magnitude of differences between group and the strength of the effects, differences in variances can. As the aim of research is usually to uncover the existence and strength of such associations, it is important to study the differences in variances between the CAWI/PAPI and the LISS panel data.

Table 8 displays the differences in variances between the CAWI/PAPI and LISS panel data. The table shows the differences between the values of the absolute z-scores in the CAWI/PAPI and LISS panel data. For example, a score of +.01 means that respondents of the LISS panel scored .01 point higher on the absolute z-scores compared to the CAWI/PAPI panel data. The CAWI/PAPI data here functions as a reference category. Almost all differences in scores were small and the majority was non-significant. The outlier to this rule was the item measuring interest in politics. There was significantly more variance among members of the LISS panel.

10. Changes from 2017 to 2021

Key findings

- *Based on the LISS-mode a slightly stronger left-wing trend and pro-EU-unification trend is found than based on the CAWI/PAPI mode*

Table 9 provides shows to what extent changes have occurred in the means of a selection of core variables, when the different modes of 2021 are compared to different modes in 2017 (but the differences are not tested on significance, given the different sample sizes in which the comparisons are made). The CAWI/PAPI-mode shows some more increase to less political interest and less satisfaction with the government, whereas this would be not be concluded comparing the LISS-mode from 2021 to the 2017 data. Moreover, from the LISS-mode 2021 data one would derive a stronger trend towards less support for euro-scepticism (on the ‘unification has gone too far’-item) than from the CAWI/PAPI-mode.

From the LISS-mode in 2021 it would be concluded that, compared to the 2017 modes, the population would have turned more left-wing, more so than from the CAWI/PAPI mode could be concluded. In that latter mode, sympathy scores for SP, GroenLinks and CDA decreased stronger than in the LISS-mode, and PvdA-sympathy scores went up less. In the CAWI/PAPI mode, the PVV sympathy scores went up somewhat stronger.

Table 9. Changes in means from 2017 to 2021, by survey mode

Core Variables (original coding)	Higher scores indicate	Data 2021 - Data 2017					
		Data 2021	CAPI 2017	CAWI 2017	LISS 2017	Total 2017	
V024: Interested in politics	Less interested	CAWI/PAPI		+0.16	+0.13	+0.12	+0.13
		LISS		+0.04	+0.01	0	+0.01
V083: Satisfaction with govern.	Less satisfied	CAWI/PAPI		+0.22	+0.06	+0.07	+0.11
		LISS		+0.09	-0.07	-0.06	-0.02
V098: Income differences – p. resp	Differences should be smaller	CAWI/PAPI		+0.20	+0.25	-0.02	+0.10
		LISS		+0.08	+0.13	-0.14	-0.02
V108: European unification – p resp.	Unification gone too far	CAWI/PAPI		+0.15	+0.03	-0.26	-0.08

		LISS	-0.27	-0.39	-0.68	-0.50
V118: Foreigners – p. resp.	More adjustment	CAWI/PAPI	-0.24	-0.53	-0.64	-0.50
		LISS	-0.13	-0.42	-0.53	-0.39
V133: Left- right self-rating	Right-wing	CAWI/PAPI	-0.17	-0.17	-0.10	-0.13
		LISS	-0.26	-0.26	-0.19	-0.22
V252 until V254: External efficacy (A)	More efficacy	CAWI/PAPI	-0.12	-0.09	-0.04	-0.08
		LISS	+0.03	+0.06	+0.11	+0.07
V258 and V259: Internal efficacy (A)	Less efficacy	CAWI/PAPI	+0.03	+0.10	+0.04	+0.05
		LISS	-0.13	-0.06	-0.12	-0.11
V260 until V262: Political cynicism (A)	More cynicism	CAWI/PAPI	+0.04	+0.09	+0.05	+0.05
		LISS	-0.03	0.02	-0.02	-0.02
Sympathy Scores						
V200: Sympathy score: VVD	More sympathy	CAWI/PAPI	-0.09	+0.22	-0.08	-0.03
		LISS	-0.10	+0.21	-0.09	-0.04
V201: Sympathy score: PvdA	More sympathy	CAWI/PAPI	-0.25	+0.18	+0.10	+0.02
		LISS	0	+0.43	+0.35	+0.27
V202: Sympathy score: PVV	More sympathy	CAWI/PAPI	+0.34	+0.41	+0.40	+0.38
		LISS	+0.19	+0.26	+0.25	+0.23
V203: Sympathy score: CDA	More sympathy	CAWI/PAPI	-0.42	-0.22	-0.59	-0.47
		LISS	-0.23	-0.03	-0.40	-0.28

V204: Sympathy score: SP	More sympathy	CAWI/PAPI	-0.63	-0.30	-0.41	-0.45
		LISS	-0.38	-0.05	-0.16	-0.20
V205: Sympathy score: D66	More sympathy	CAWI/PAPI	-0.31	-0.15	-0.44	-0.35
		LISS	+0.03	+0.19	-0.10	-0.01
V207: Sympathy score: GroenLinks	More sympathy	CAWI/PAPI	-1.13	-0.89	-1.24	-1.14
		LISS	-0.63	-0.39	-0.74	-0.64

11. Conclusions

The recommendation to design the future DPES data collection based on the LISS-panel supplemented by a fresh sample from Statistics Netherlands in a CAWI/PAPI mode, following the mode-effect test from the 2017 DPES data collection, was implemented in 2021. However, the advantages of the CAWI-mode over the LISS-panel mode found in 2017 were not replicated in the 2021 design.

While the CAWI-mode had better representation in terms of core demographics, it showed worse representation in terms of voting behaviour. Both modes of data collection overrepresented voters for D66, but the overrepresentation was significantly higher in the CAWI/PAPI mode. This pattern was also observed, to a lesser extent, for VVD and GroenLinks voters, with only PvdA voters showing stronger overrepresentation in the LISS-panel mode compared to the CAWI/PAPI mode. On the other hand, the underrepresentation of PVV voters was more pronounced in the CAWI/PAPI mode compared to the LISS-panel mode, while the reverse was true for FvD.

The most significant difference was observed in relation to non-voters. Although underrepresented in both modes, non-voters were significantly more underrepresented in the CAWI/PAPI mode. In fact, all the other findings in this report indicate the underrepresentation of politically disinterested individuals in the CAWI/PAPI mode. Respondents in this mode exhibited less item-non-response, scored higher on measures of political interest, and lower on measures of political distrust. Additionally, the CAWI/PAPI mode showed less variance in political interest compared to the LISS-panel. Individuals who were less engaged in politics were less likely to participate in the LISS-panel mode, but even less so in the CAWI/PAPI mode. This effect was even more pronounced in the post-election survey compared to the pre-election survey. Furthermore, drop-out between the pre- and post-election stages was significantly affected by political disinterest in the CAWI/PAPI mode.

Identifying the reasons why the CAWI/PAPI mode performed worse compared to the LISS-panel mode in 2021, relative to the comparison between CAWI-mode and LISS-panel in 2017, is not straightforward. One difference between 2021 and 2017 was the incentive scheme. In 2017, the incentives were higher (€10) and increased with the number of invitations, while in 2021, the incentive remained constant at €5 per invitation. The lower incentive in 2021 may have contributed to the lower response rate and selective non-response among individuals less interested in politics.

Another explanation for the differences could be the formulation of the invitation letter. Although the invitation letter in 2021 was based on the formulation used in 2017 and did not mention politics, the first sentence did reference opinions on societal questions and democracy. Perhaps the emphasis on opinions about democracy discouraged participation.

Based on the findings of this report, there is no strong justification for including an additional CAWI-mode data collection alongside the LISS-panel survey using a fresh probability sample. It is only sensible to do so if we can ensure that underrepresented groups are better represented through the CAWI-mode, which was not the case in 2021. Solely relying on the LISS-panel also has disadvantages, as certain groups (strongly) remain underrepresented in the panel. Notably, respondents from less urbanized areas are overrepresented in the LISS-panel, a trend that has increased from 2017 to 2021. The LISS-panel, like the CAWI-panel, also exhibits significant underrepresentation of eligible migrant voters from Africa, Asia, and Latin America, with the largest distortion observed in voting for DENK. To address this, an additional CAWI oversampling was designed in 2021 among these voter groups, resulting in a separate DEMES2021 dataset that can be merged with DPES. However, response rates in DEMES are low (21%), and there appears to be a selection bias favouring politically interested individuals here as well.

The LISS-panel also demonstrates relatively strong underrepresentation of younger age groups and individuals who are single. This corroborates previous findings that survey research struggles to include lower-educated, single young men from heavily urbanized areas. For future DPES rounds, we recommend primarily relying on the LISS-panel. To address distortions in the LISS-panel, we suggest utilizing additional probability samples of specific target groups, offering high incentives to reach these hard-to-reach or small-sized populations. Higher incentives or providing the questionnaire in multiple languages could be options to include lower-educated single young men or individuals with an immigrant background.