



# Uncertainty in times of COVID-19: Raw survey data

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Data from a survey of consumer expectations

## Description

From April 24, 2020, Fabian Lange and Lars Vilhuber will conduct the survey “Uncertainty in COVID-19 times”. The survey is a single-question survey focusing on people’s anticipation about social distancing rules and firm closures during the 2020 COVID-19 health crisis.

We believe that this information is not otherwise available in a reliable and timely fashion. The information should be usable by policy-makers and researchers, to be included in models of future developments of society and the economy.

## Citation

Please cite the data as

Lange, Fabian and Lars Vilhuber. 2020. “Uncertainty in times of COVID-19: Raw survey data [dataset].” Available at <https://labordynamicsinstitute.github.io//covid19-expectations-data> (accessed 2020-05-16).

Please cite this document as

Lange, Fabian and Lars Vilhuber. 2020. "Codebook for: Uncertainty in times of COVID-19: Raw survey data." Available at <https://labordynamicsinstitute.github.io/covid19-expectations-data> (accessed 2020-05-16).

We will be posting the data on Zenodo shortly. Data should be cite via DOI then.

## Available data

### Final files

Final files are uploaded after each wave is completed. Filenames in `final` tagged with geography, language, the question type, and date downloaded:

`survey-[geography]-[language]-[question]-[date].xlsx`

### List of files

Files
survey-canada-en-businesses-20200506.xlsx
survey-canada-en-businesses-20200508.xlsx
survey-canada-en-businesses-20200515.xlsx
survey-canada-en-people-20200503.xlsx
survey-canada-en-people-20200508.xlsx
survey-canada-en-people-20200515.xlsx
survey-canada-fr-businesses-20200426.xlsx
survey-canada-fr-businesses-20200503.xlsx
survey-canada-fr-businesses-20200510.xlsx
survey-canada-fr-people-20200426.xlsx
survey-canada-fr-people-20200503.xlsx
survey-canada-fr-people-20200510.xlsx
survey-ny-en-businesses-20200512.xlsx
survey-ny-en-people-20200513.xlsx
survey-qc-fr-businesses-20200429.xlsx
survey-qc-fr-businesses-20200510.xlsx
survey-qc-fr-people-20200429.xlsx
survey-qc-fr-people-20200510.xlsx
survey-us-en-businesses-20200429.xlsx
survey-us-en-businesses-20200503.xlsx
survey-us-en-businesses-20200511.xlsx
survey-us-en-people-20200429.xlsx
survey-us-en-people-20200504.xlsx
survey-us-en-people-20200510.xlsx

### Normalized files

We provide a normalized Stata and R (`Rds`) file with all surveys, recoded consistently.

Files
expectations.dta
expectations.Rds

## Temporary files

Temporary files may be made available if a survey has not yet completed, but data are already available.

Temporary files follow

survey-[surveyid].xlsx

## Data description

Topic	Answer
Geographic Coverage	United States of America, Canada
Time Periods	2020-04-24 - 2020-05-15
Date of Collection	2020-04-24 - 2020-05-15
Unit of Observation	Individual
Description of Variables	User ID, Time (UTC), Survey Completion, Publisher Category, Gender, Age, Geography, Weight, Question #1 Answer, rt_Q1_ms

## Reference period

The survey asks about point-in-time expectations. A new wave is launched every Friday. The list provides the dates of collection for each wave. Currently, data are available covering the period between 2020-04-24 and 2020-05-15.

Show  entries

Search:

	Files	begin time	end time
1	final/survey-canada-en-businesses-20200506.xlsx	2020-04-24 16:00:00	2020-05-06 10:00:00
2	final/survey-canada-en-people-20200503.xlsx	2020-04-24 16:00:00	2020-05-03 10:00:00
3	final/survey-canada-fr-businesses-20200426.xlsx	2020-04-24 16:00:00	2020-04-26 17:00:00
4	final/survey-canada-fr-people-20200426.xlsx	2020-04-24 16:00:00	2020-04-26 18:00:00
5	final/survey-us-en-businesses-20200429.xlsx	2020-04-24 22:00:00	2020-04-28 02:00:00
6	final/survey-us-en-people-20200429.xlsx	2020-04-24 22:00:00	2020-04-28 04:00:00
7	final/survey-qc-fr-businesses-20200429.xlsx	2020-04-27 04:00:00	2020-04-27 16:00:00
8	final/survey-qc-fr-people-20200429.xlsx	2020-04-27 04:00:00	2020-04-27 17:00:00
9	final/survey-canada-en-businesses-20200508.xlsx	2020-05-01 21:00:00	2020-05-08 19:00:00
10	final/survey-canada-fr-businesses-20200503.xlsx	2020-05-01 21:00:00	2020-05-03 21:00:00

Showing 1 to 10 of 24 entries

Previous  2 3 Next

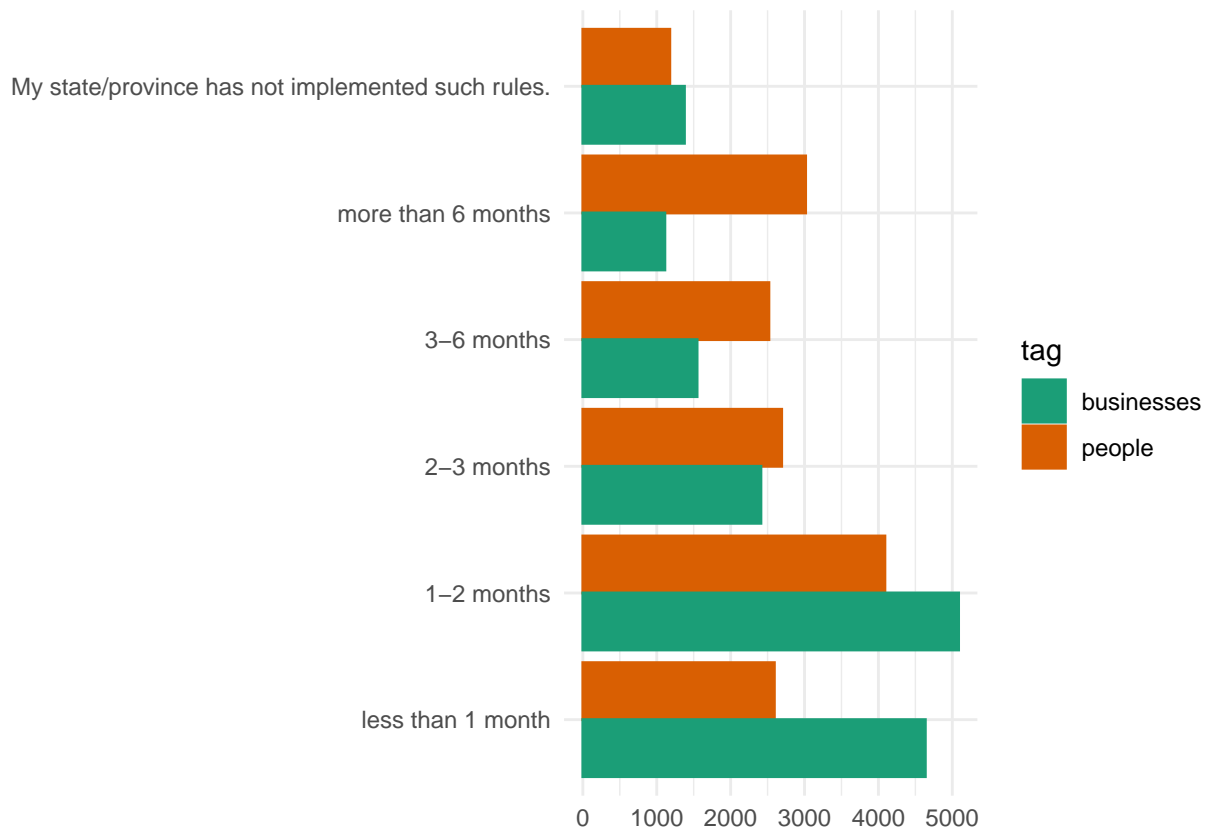
## Data Dictionary

### Q1: Answer to primary question

This field captures the answer to the sole question of each survey, where answers differ across geographic scope (geotag), and languages. A consolidated (standardized) distribution is shown below, using the standardizer mapping.

### Standardized distribution

The following tabulations are of unweighted data.



#### People, Canada, English

Question #1 Answer	count	percent
1-2 months	1355	24.56
2-3 months	966	17.51
3-6 months	859	15.57
less than 1 month	709	12.85
more than 6 months	1086	19.68
My province has not implemented such rules.	543	9.84

#### Business, Canada, French

Question #1 Answer	count	percent
1-2 mois	861	32.52
2-3 mois	648	24.47
3-6 mois	458	17.30
Les entreprises dans ma province ne sont pas fermées	58	2.19
moins d'un mois	452	17.07
plus que 6 mois	171	6.46

#### People, Canada, French

Question #1 Answer	count	percent
1-2 mois	466	18.37
2-3 mois	552	21.76
3-6 mois	665	26.21
Ma province n'a pas de telles mesures	23	0.91
moins d'un mois	94	3.71
plus que 6 mois	737	29.05

### Business, US, English

Question #1 Answer	count	percent
1-2 months	2343	31.12
2-3 months	814	10.81
3-6 months	469	6.23
less than 1 month	2832	37.62
more than 6 months	446	5.92
My state has not implemented such rules.	624	8.29

### People, US, English

Question #1 Answer	count	percent
1-2 months	2131	28.32
2-3 months	1090	14.49
3-6 months	912	12.12
less than 1 month	1712	22.75
more than 6 months	1105	14.68
My state has not implemented such rules.	575	7.64

### Question type

The actual question asked is encoded in the `tag` variable, and differs by geographic scope (`geotag`). On the original files, scope is not identifiable except through the file name, and the question text is on the “Overview” tab. On the derived files, the variables `tag` and `geotag` allow to map back to the actual question:

```
##
## > source(file.path(programs, "config.R"), echo = FALSE)
## Loading required package: summarytools
## For best results, restart R session and update pander using devtools:: or remotes::install_github('r
##
## Attaching package: 'summarytools'
## The following object is masked from 'package:tibble':
##
##      view
## [1] "Unloading summarytools"
##
## > questions <- read_data_from_ws(ws, ws_sheet = "Overview",
## +   standardize = FALSE)
## [1] "Processing: survey-canada-en-businesses-20200506.xlsx"
```

```
## [1] "Processing: survey-canada-en-businesses-20200508.xlsx"
## [1] "Processing: survey-canada-en-businesses-20200515.xlsx"
## [1] "Processing: survey-canada-en-people-20200503.xlsx"
## [1] "Processing: survey-canada-en-people-20200508.xlsx"
## [1] "Processing: survey-canada-en-people-20200515.xlsx"
## [1] "Processing: survey-canada-fr-businesses-20200426.xlsx"
## [1] "Processing: survey-canada-fr-businesses-20200503.xlsx"
## [1] "Processing: survey-canada-fr-businesses-20200510.xlsx"
## [1] "Processing: survey-canada-fr-people-20200426.xlsx"
## [1] "Processing: survey-canada-fr-people-20200503.xlsx"
## [1] "Processing: survey-canada-fr-people-20200510.xlsx"
## [1] "Processing: survey-ny-en-businesses-20200512.xlsx"
## [1] "Processing: survey-ny-en-people-20200513.xlsx"
## [1] "Processing: survey-qc-fr-businesses-20200429.xlsx"
## [1] "Processing: survey-qc-fr-businesses-20200510.xlsx"
## [1] "Processing: survey-qc-fr-people-20200429.xlsx"
## [1] "Processing: survey-qc-fr-people-20200510.xlsx"
## [1] "Processing: survey-us-en-businesses-20200429.xlsx"
## [1] "Processing: survey-us-en-businesses-20200503.xlsx"
## [1] "Processing: survey-us-en-businesses-20200511.xlsx"
## [1] "Processing: survey-us-en-people-20200429.xlsx"
## [1] "Processing: survey-us-en-people-20200504.xlsx"
## [1] "Processing: survey-us-en-people-20200510.xlsx"
##
## > questions.tags <- questions %>% select(`Question text`,
## +   tag, geotag) %>% distinct()
```

Show  entries

Search:

	Question text	tag	geotag
1	How much longer do you expect the closure of *non-essential businesses* to stay in place in your province?	businesses	canada
2	How much longer do you expect social distancing rules (*restrictions on gatherings, stay-at-home rules*) to stay in place in your province?}	people	canada
3	Combien de temps pensez-vous que *la fermeture d'entreprises non essentielles* demeurera en vigueur dans votre province?	businesses	canada
4	Combien de temps pensez-vous que les mesures de distanciation sociale (restrictions sur les rassemblements, séjour à la maison) demeureront en vigueur dans votre province?	people	canada
5	How much longer do you expect the closure of non-essential businesses to stay in place in your state?	businesses	ny
6	How much longer do you expect social distancing rules (*restrictions on gatherings, stay-at-home rules*) to stay in place in your state?	people	ny
7	Combien de temps pensez-vous que *la fermeture d'entreprises non essentielles* demeurera en vigueur dans votre province?	businesses	qc
8	Combien de temps pensez-vous que les mesures de distanciation sociale (restrictions sur les rassemblements, séjour à la maison) demeureront en vigueur dans votre province?	people	qc
9	How much longer do you expect the closure of non-essential businesses to stay in place in your state?	businesses	us
10	How much longer do you expect social distancing rules (*restrictions on gatherings, stay-at-home rules*) to stay in place in your state?	people	us

Showing 1 to 10 of 10 entries

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Age

Age	count	percent
18-24	4340	13.46
25-34	5297	16.43
35-44	4620	14.33
45-54	3965	12.30
55-64	3839	11.91
65+	3624	11.24
Unknown	6557	20.34

## Gender

Gender	count	percent
Female	11978	37.15
Male	14113	43.77
Unknown	6151	19.08

## Geography

Geography is as coded by Google Surveys. Precision may vary, having country, region, province, and sometimes city.

### Detailed geography

The variable **Geography** corresponds to the geography as captured and recorded by Google. All other geography variables are derived from this variable, and are only available on the normalized files.

Show  entries

Search:

	Geography	count	percent
1	CA-ATLANTIC-NB	177	0.55
2	CA-ATLANTIC-NB-Fredericton	32	0.1
3	CA-ATLANTIC-NB-Moncton	22	0.07
4	CA-ATLANTIC-NB-Riverview	6	0.02
5	CA-ATLANTIC-NB-Saint John	18	0.06
6	CA-ATLANTIC-NL	74	0.23
7	CA-ATLANTIC-NL-St. John's	46	0.14
8	CA-ATLANTIC-NS	209	0.65
9	CA-ATLANTIC-NS-Dartmouth	18	0.06
10	CA-ATLANTIC-NS-Halifax	70	0.22

Showing 1 to 10 of 306 entries

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## Country

Distribution across countries

	Country	count	percent
1	CA	16117	49.99
2	Unknown	83	0.26
3	US	16042	49.75

## Region

Regions may be single states or provinces, or larger collections. They may correspond to US Census regions or Statistics Canada regions.

Show 10 entries

Search:

	Region	count	percent
1	ATLANTIC	717	2.22
2	BRITISH COLUMBIA	1847	5.73
3	MIDWEST	4417	13.7
4	NORTH	18	0.06
5	NORTHEAST	3078	9.55
6	ONTARIO	5200	16.13
7	PRAIRIES	2165	6.71
8	QUEBEC	6170	19.14
9	SOUTH	5501	17.06
10	WEST	3046	9.45

Showing 1 to 10 of 11 entries

Previous 1 2 Next

## States/Province

States and provinces are codes as two-letter postal abbreviation on the original data files. On derived files, **geonum** contains the numeric FIPS or province code (coded as character to preserve leading zeros), and as a full name (**geoname**). Note that the Google-provided **Region** often, but not always corresponds to a state or province, whereas **State/Province**, **geonum**, **geoname** always correspond to state/province.

Show 10 entries

Search:

	State/Province	count	percent
1	AB	1418	4.4
2	AK	26	0.08
3	AL	343	1.06
4	AR	142	0.44
5	AZ	377	1.17
6	BC	1847	5.73
7	CA	588	1.82
8	CO	458	1.42
9	CT	177	0.55
10	DC	67	0.21

Showing 1 to 10 of 65 entries

Previous 1 2 3 4 5 6 7 Next



## City

In some cases, details is available at the city level.

Show  entries

Search:

	City	count	percent
1	Abbotsford	16	0.05
2	Airdrie	25	0.08
3	Ajax	38	0.12
4	Albany	29	0.09
5	Albuquerque	125	0.39
6	Alpena	6	0.02
7	Arlington	5	0.02
8	Athens	5	0.02
9	Atlanta	95	0.29
10	Auburn	11	0.03

Showing 1 to 10 of 229 entries

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## Weight

See elsewhere in this document how weights are computed.

	Weight
Mean	0.7933
Std.Dev	0.7008
Min	0.0000
Median	0.8065
Max	25.9246
N.Valid	32,242.0000
Pct.Valid	100.0000

## Response Time

	rt_Q1_ms
Mean	27,034.8355
Std.Dev	106,263.2881
Min	553.0000
Median	13,207.0000
Max	3,555,335.0000
N.Valid	32,242.0000
Pct.Valid	100.0000

## Publisher Category

	Publisher Category	count	percent
1	Arts & Entertainment	932	2.89
2	Mobile App	5185	16.08
3	News	20441	63.4
4	Other	4300	13.34
5	Reference	1384	4.29

### Not tabulated

- User ID
- Time (UTC)
- Survey Completion

### Data structure

Data files are available for each completed cycle of the survey, in general once a week, and are stored under **final**. Data from the preliminary study (assessing the questionnaire design) is stored under **preliminary**. We may make available data before the survey is completed for each cycle, under **temporary**, however, once the final version from that cycle is available, these are deleted (this directory will be empty on Zenodo).

### Data format

Native format is Office Open XML (XLSX, ECMA International (2016) ). Normalized files are available in Stata and R formats.

Files are provided as downloaded from Google Surveys. Each file has 4 tabs.

### Overview

Lists the questions asked by the client, in this case Lange and Vilhuber, as well as a survey ID.

### Topline

This tab contains a weighted summary of the responses to the questions (similar to the above summary).

### Complete responses

This tab contains the actual microdata for any complete responses. Note that for a single-question survey, this is identical to the “All responses”. A complete response might have a weight of zero.

### All responses

All responses, whether complete or not, are recorded on this tab. In the case of a single-question survey, this is identical to the “Complete responses” tab.

## Data sources and methodology

### Target population

- All Canadians aged 18 and older from the ten provinces and three territories are eligible to participate.
- All US residents aged 18 and older are eligible to participate.

## Instrument design

Each individual is asked one of two questions: how long they expect “social distancing rules” or “business closures” to remain in effect:

- How much longer do you expect social distancing rules (restrictions on gatherings, stay-at-home rules) to stay in place in your province/state?
- How much longer do you expect the closure of non-essential businesses to stay in place in your province/state?

Five response choices are offered:

- “less than 1 month”,
- “1-2 months”,
- “2-3 months”,
- “3-6 months”,
- “more than 6 months”.

An additional answer allows respondents to affirm that “such measures are not implemented in their province/state”. See questionnaires for visual representation of the questions.

## Questionnaires

### Data collection

Data is collected via Google Surveys. For English-language surveys, data is collected via a web form. For French-language surveys, the Android Google Survey app is used, as web-collection in French is not possible via Google Surveys. See Sostek and Slatkin (2018) and Google (2020) for more details.

The survey questionnaire was approved by McGill University Research Ethics Board under REB File # 20-04-070. Exemption was issued by Cornell University Institutional Review Board under Protocol ID# 2004009539.

### Sampling

Google Surveys is an online non-probability survey. It uses stratified sampling for collection, based (in the US) on the target internet population from the 2017 Current Population Survey (CPS) Computer and Internet Use Supplement (Sostek and Slatkin 2018; Google 2020).

Data are collected directly from survey respondents.

For each country, we plan to collect 2500 responses per question, per week. For Canada, a French-language variant is fielded. In order to determine the split, we use Statistics Canada statistics on “Language spoken most often at home” by other language(s) spoken regularly at home and age” (Statistics Canada 2017),<sup>1</sup> combining responses for “French” and “French and non-official language” (i.e., no English mentioned).

For 2016, 20.4% spoke French and no English as the language spoken most often at home. We thus target 510 responses via the French-language questionnaire, and 1990 in English.

### Imputation

All demographics are imputed by Google Surveys, if collected via web. Demographics for respondents via the app are collected through the app.

### Weighting

Weights are provided by Google Surveys, based on the imputed demographics. For the US, the US Census Bureau’s Current Population Survey (CPS) Computer and Internet Use Supplement is used (currently the 2017 version). For Canada, Google (2020) points to a “combination of government data and internal Google

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<sup>1</sup>Table can be downloaded from [here](#).

data sources.” Google uses post-stratification weighting to align the weighted demographics with the target population.

### **Quality evaluation**

A preliminary survey was conducted to allow for choice of either a two-question variant, or a one-question variant that included both social distancing and business closures (“How much longer do you expect social distancing rules (restrictions on gatherings, closure of non-essential businesses, stay-at-home rules) to stay in place in your province?”). See “Uncertainty in times of COVID-19: Choosing whether to ask 1 or 2 questions” for more information.

### **Privacy and disclosure control**

Privacy and disclosure control are described in Google (2020). For most respondents, no direct or indirect identifiers are collected, and are imputed based on other information available to Google, but not the sponsors of the survey.

### **Response rates**

The specific response rates are not known. Google (2020) reports response rates in general for this type of data collection.

### **Funding**

We acknowledge generous funding by Lange’s Canada Research Chair in Labour and Personnel Economics, and by the Cornell Atkinson Center for Sustainability under its “Rapid Response Fund” program.

### **License**

These data are licensed under a Creative Commons Attribution-NonCommercial 4.0 International license. See citation for attribution.

### **References**

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- Statistics Canada. 2017. “Language Highlight Tables, 2016 Census.” Catalogue 98-402-X2016005. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/lang/Table.cfm?Lang=E&T=31&Geo=00>.