

## Chileans' Willingness to Pay for Protected Areas: Methods Statement and Toplines

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### Methods statement

Conservation Strategy Fund commissioned Datavoz to complete a survey in Chile on The Pew Charitable Trusts' behalf. Datavoz conducted a telephone survey of adults residing in the 16 regions of Chile. The survey's goal was to understand people's perceptions, beliefs, and evaluation of the protected areas in Chile.

### Population under study

The survey targeted Spanish-speaking men and women of adult age (18 years or older) who resided in the 16 regions of Chile. The survey frame followed the [population projections](#) of the National Statistics Institute of Chile (INE) as of June 30, 2020, based on the 2017 Census. (See Table 1 for a breakdown of the population projections by region.)

**Table 1. Adult Population Projections for Chile by Region**

Region	Population (≥ 18 years of age)	% of population
Arica y Parinacota	192,237	1.3
Tarapacá	271,464	1.9
Antofagasta	494,751	3.4
Atacama	245,642	1.7
Coquimbo	626,691	4.3
Valparaíso	1,477,914	10.2
O'Higgins	730,434	5.1
Maule	827,459	5.7
Ñuble	381,908	2.6
Biobío	1,296,221	9.0
Araucanía	777,352	5.4
Los Ríos	322,255	2.2
Los Lagos	656,033	4.5
Aysén	84,013	0.6
Magallanes y la Antártica	129,617	0.9
Región Metropolitana	5,940,340	41.1
Total	14,454,331	100.0*

### Sampling design

The survey utilized probability sampling via random digit dialing of landline and mobile phone numbers. (See Table 2 for a breakdown of the cellular phone network by company.) Interviews were conducted using Computer Assisted Telephone Interviewing (CATI) software.

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\* Percentages reported in this document may not always add up to 100% due to rounding.

**Table 2. Mobile Phone Companies by Market Share**

Company	% market share
Entel PCS	31.0
Claro Chile S.A.	22.7
Telefónica Móviles Chile S.A.	25.7
Wom S.A.	19.5
Vtr Móvil S.A.	1.1

*Weighting factor*

Since we utilized simple random sampling, it was necessary to construct weighting factors to correct for possible nonresponse biases to avoid over- or under-representing certain population groups. The weighting was created based on the population distribution of the target population and utilized data from population projections based on the 2017 Census and sociodemographic data from the 2020 CASEN Survey. We utilized the following for post-survey corrections and adjustments:

- [From the 2017 Census](#): region, sex, age
- [From the 2020 CASEN Survey](#): educational attainment

A calibration method for weighting was used based on the iterative proportional adjustment model (or “raking” method). While the weighting factors are intended to correct for nonresponse concerns, we acknowledge that auxiliary variables may also be affected. For example, the educational attainment of certain groups may not be representative of the known parameters of the population.

*Survey response rate*

The survey was fielded between June 23 and Aug. 9, 2021. In total, the final response rate was 9%, according to American Association for Public Opinion Research definitions. The contact rate was 41% (6,893 people answered the phone), but the rejection rate was 31%. The cooperation rate was 11%. Tables 3 and 4 provide more detail. After using the raking method to weight the final sample, 13 cases were eliminated from the 1,558 total completed interviews, leaving a final sample of 1,545 responses. The margin of sampling error was plus or minus 3 percentage points at the 95% confidence level.

**Table 1. Survey Indicators**

Indicator	N
Correct interviews	1,558
Faulty/out of service	1,522
Language barrier	16
Busy	1,140
Answering machine	4,102
Full quota	34
Company or office	252
Canceled interview	539
Interview postponed in progress	33
Interview postponed without starting	78
Interview refused	5,224
Fax	36
Physical and/or mental capacity of the interviewee	15
No answer	2,260

Other cases of unavailability	84
Person not belonging to household	3
Total	16,896

**Table 2. Other Indicator Rates**

<b>Rates</b>	<b>%</b>
Response rate	9
Cooperation rate	11
Rejection rate	31
Contact rate	41

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Interviews were conducted from June 23 to Aug. 9, 2021, among a representative sample of 1,545 total respondents. The margin of error with design effect for the total respondents is plus or minus 3 percentage points at the 95% confidence level. The survey was conducted in Spanish by Datavoz under CSF supervision.

Percentages are weighted.

**Number of observations N=1,545**

Question 1. (open question) What is your age?

	%
18	2.6
19	1.9
20	1.9
21	1.3
22	1.8
23	1.8
24	1.3
25	2.1
26	1.7
27	2.3
28	2.3
29	1.8
30	2.4
31	2.5
32	2.5
33	2.4
34	1.2
35	1.8
36	1.7
37	2.0
38	2.0
39	2.7
40	2.9
41	1.3
42	1.9
43	1.4
44	0.9
45	1.8
46	1.5
47	2.0
48	1.4
49	1.5
50	2.2

51	1.2
52	1.4
53	1.2
54	2.1
55	1.7
56	2.5
57	0.6
58	1.7
59	2.2
60	2.9
61	1.6
62	0.8
63	0.7
64	2.0
65	1.8
66	1.2
67	1.6
68	1.0
69	1.3
70	1.5
71	1.0
72	0.5
73	*
74	1.3
75	0.7
76	*
77	*
78	*
79	*
80	1.0
82	*
83	*
84	*
85	*
86	*
88	*
89	*
90	*

Note: Percentage less than 0.5 printed as \*.

**Based on total respondents (N=1,545)**

Question 2. (open question) Can you name two protected areas in Chile?

	Nonresponse (%)	Response (%)
P2_1	0	100
P2_2	0	100

Note: Percentages not weighted. Based on the sample.

**Number of observations N=1,545**

Question 3. Have you ever visited a protected area in Chile?

	%
Yes	62
No	34
Don't know	4

**Number of observations N=1,082**

Question 4. In what year did you last visit a protected area?

	%
1976	*
1978	*
1980	*
1986	*
1987	*
1989	*
1990	*
1992	*
1993	*
1998	*
1999	*
2000	*
2001	*
2005	*
2006	*
2007	*
2008	*
2009	*
2010	1
2011	1
2012	1
2013	1
2014	1
2015	5
2016	5
2017	4
2018	11
2019	26
2020	12
2021	18

Note: Percentage less than 0.5 printed as \*.

**Number of observations N=1,545**

Question 5. (open question) Which protected area have you visited?

	Nonresponse (%)	Response (%)
P5	0	100

Note: Percentages not weighted. Based solely on the sample.

**Number of observations N=1,082**

Question 6. On your last visit to a protected area, did you travel alone or accompanied?

	%
Alone	8
Accompanied	91
Don't remember	1

**Number of observations N=1,002**

Question 6A. How many people have traveled with you?

	%
1	9
2	18
3	16
4	18
5	13
6	8
7	3
8	2
9	1
10	3
11	*
12	1
14	1
15	1
17	*
18	*
19	*
20	2
21	*
23	*
24	*
25	1
28	*
29	*
30	2
32	*
34	*
40	0.5
45	*
50	*

60	*
80	*
99	*

Note: Percentage less than 0.5 printed as \*.

**Number of respondents N=876**

Question 7. (open question) Since 2018, how many times have you visited a protected area? If you do not know the exact number, your best guess is fine.

	%
1	43.3
2	16.0
3	9.4
4	8.0
5	6.5
6	3.7
7	0.8
8	0.9
9	*
10	4.9
12	*
13	*
15	0.7
20	3.0
25	*
30	0.8
40	*
50	0.5
77	*
90	*
99	*

Note: Percentage less than 0.5 printed as \*.

**Number of respondents N=1,545**

Question 8. (open question) Which protected area is the closest to your home?

	Nonresponse (%)	Response (%)
P8	0	100

Note: Everyone responded, but some answered “do not know.” In that case, the proportion of people who do not know which protected area is the closest to their home is 31%. Percentages not weighted. Based solely on the sample.

**Number of respondents N=1,069**

Question 9. How do you usually get to this protected area?

	%	%	%	%
	By airplane	By car	By bus	Other
Yes	1	68	18	21



No	99	32	82	79
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Note: The interviewee could choose more than one option.

**Number of respondents N=1,069**

Question 10. (open question) How long does it take you to reach this protected area in each case?

	Mean	Mean	Mean	Mean
	By airplane	By car	By bus	Other
Hour(s)	2.46	1.33	1.51	0.85
Minute(s)	6.66	17.65	19.50	16.73
Number of observations	12	778	170	207

**Number of observations N=1,545**

Question 11. When the risk of COVID-19 passes and it is safe to travel again, how interested are you in visiting Chile's protected areas? Have ...

	%
A lot of interest	75
Some interest	14
No interest	9
Don't know	3

**Number of observations N=1,545**

Question 12. Has the confinement due to the pandemic caused you to think differently about the importance of activities in open spaces and tourism in protected areas?

	%
No	32
Yes	68

Question 12B. (open question) Could you briefly explain your response?

	Nonresponse (%)	Response (%)
P12B	32	68

Notes: Everyone who answered "no" in the previous question did not answer P12B. Percentages not weighted. Based solely on the sample.

**Number of observations N=1,545**

Question 13. (open question) What do you think are the benefits of protected areas?

	Nonresponse (%)	Response (%)
P13	0	100

Note: Everyone responded, but some answered "do not know." In that case, the proportion of people who do not know how to answer this question is 3.4%. Percentages not weighted. Based solely on the sample.

**Number of observations N=1,545**

Question 14A. If the proposed special rate caused your household's monthly electricity bill to increase by X pesos, would you be willing to pay this increase per month? (bid 1)

	%	%	%	%	%
	1,000	2,000	3,000	6,000	10,000
Yes	60	51	42	34	47
No	40	49	58	66	53

**Number of observations N=1,545**

Question 14B. Would you be willing to pay X pesos per month? (bid 2)

	%
No, No	42
No, Yes	10
Yes, No	20
Yes, Yes	27

Note: Mean values

**Number of observations N=1,545**

Question 15. I am going to read a list of statements. Please tell me IF it reflects your refusal to contribute or donate.

	%
This increased cost would be too expensive for me/The amount I am being asked to donate would be too expensive for me	50
I don't trust the government to give the money to the environmental/protected area administration agencies	50
I don't think the park management agencies are effective	40
I would prefer to donate directly to one specific park	60
I would prefer to donate directly to local organizations that are supporting national park management	70
I think that current management is effective and doesn't require more economic resources	30
I would prefer to donate directly to local organizations that support the management of protected areas	40

Note: Interviewee allowed to choose multiple options.

**Number of observations N=1,545**

Question 16. (open question) Regardless of your personal opinion about [special electricity rate/donation], how do you think this money should be used?

	Nonresponse (%)	Response (%)
P16	0	100

Note: Everyone responded, but some answered "do not know." In that case, the proportion of people who do not know how to answer this question is 6.4%. Percentages not weighted. Based solely on the sample.

**Number of observations N=1,545**

Question 17. Have you ever donated money to any institution or nonprofit organization?

	%
Yes	69
No	29
Don't know or don't want to answer	2

**Number of observations N=1,545**

Question 18R. Where do you reside (region)?

	%
Región Metropolitana	42
Antofagasta	3
Arica y Parinacota	1
Atacama	2
Aysén	1
Coquimbo	4
Los Lagos	5
Los Ríos	2
Magallanes	1
O'Higgins	5
Tarapacá	2
Valparaíso	10
La Araucanía	5
Ñuble	3
Biobío	9
Maule	6

**Number of observations N=1,545**

Question 18R. Where do you reside (municipality)?

	%
Algarrobo	0.23
Alto Biobío	0.034
Alto Hospicio	1.04
Andacollo	0.068
Angol	0.39
Antofagasta	1.95
Arauco	0.21
Arica	1.26
Aysén	0.08
Buin	0.51
Cabrero	0.15
Calama	1.1
Calbuco	0.15
Calera	0.16
Calera de Tango	0.12
Calle Larga	0.04
Canela	0.084
Carahue	0.26

Cartagena	0.099
Casablanca	0.089
Castro	0.22
Catemu	0.048
Cauquenes	0.038
Cañete	0.26
Cerrillos	0.3
Cerro Navia	1.04
Chiguayante	0.56
Chillán	1.1
Chillán Viejo	0.11
Chimbarongo	0.17
Chonchi	0.2
Chépica	0.032
Coelemu	0.048
Coihueco	0.21
Colbún	0.031
Colina	0.93
Collipulli	0.1
Combarbalá	0.26
Concepción	1.83
Conchalí	0.82
Concón	0.52
Constitución	0.31
Copiapó	1.03
Coquimbo	1.18
Coronel	0.77
Corral	0.041
Coyhaique	0.45
Cunco	0.22
Curacautín	0.12
Curacaví	0.089
Curanilahue	0.32
Curicó	1.18
Dalcahue	0.081
Diego de Almagro	0.07
Doñihue	0.032
El Bosque	0.86
El Carmen	0.39
El Monte	0.41
El Quisco	0.14
Empedrado	0.069
Estación Central	0.93
Freire	0.06
Freirina	0.084
Fresia	0.052

Frutillar	0.1
Galvarino	0.12
Graneros	0.1
Hijuelas	0.12
Hualaihué	0.052
Hualañé	0.32
Hualpén	0.19
Hualqui	0.13
Huasco	0.035
Huechuraba	0.84
Illapel	0.37
Independencia	0.62
Iquique	0.73
Isla de Maipo	0.68
La Cisterna	0.31
La Cruz	0.087
La Florida	1.52
La Granja	0.73
La Higuera	0.084
La Ligua	0.039
La Pintana	1.41
La Reina	1.1
La Serena	1.07
La Unión	0.16
Lago Ranco	0.031
Laja	0.13
Lampa	0.58
Lanco	0.14
Las Condes	1.04
Lautaro	0.096
Lebu	0.034
Limache	0.46
Linares	0.44
Llay Llay	0.13
Lo Barnechea	0.3
Lo Espejo	0.46
Lo Prado	0.77
Loncoche	0.14
Longaví	0.27
Los Andes	0.51
Los Lagos	0.085
Los Muermos	0.29
Los Sauces	0.11
Los Vilos	0.35
Los Álamos	0.17
Los Ángeles	1.58

Lota	0.37
Lumaco	0.067
Machalí	0.35
Macul	0.62
Máfil	0.054
Maipú	3.19
Malloa	0.12
Marchihue	0.07
Mariquina	0.068
María Elena	0.083
Maule	0.42
Mauñín	0.033
Melipilla	0.4
Molina	0.15
Mostazal	0.032
Nacimiento	0.17
Nancagua	0.039
Natales	0.13
Nueva Imperial	0.28
Ñuñoa	1
Olmué	0.079
Osorno	1.16
Ovalle	0.48
Padre Hurtado	0.8
Padre las Casas	0.13
Paillaco	0.14
Paine	0.42
Panguipulli	0.23
Panquehue	0.05
Paredones	0.11
Parral	0.2
Pedro Aguirre Cerda	0.36
Pelarco	0.051
Penco	0.16
Peralillo	0.077
Perquenco	0.032
Peumo	0.052
Peñaflor	0.39
Peñalolén	1.26
Pichilemu	0.077
Pirque	0.37
Pitrufquén	0.13
Portezuelo	0.23
Pozo Almonte	0.11
Providencia	0.79
Puchuncaví	0.048

Pucón	0.23
Pudahuel	1.21
Puente Alto	2.78
Puerto Montt	1.39
Puerto Octay	0.11
Puerto Varas	0.35
Punta Arenas	0.47
Purranque	0.2
Quellón	0.11
Quilicura	1.41
Quillota	0.51
Quillón	0.033
Quilpué	0.62
Quinta Normal	0.26
Quintero	0.14
Rancagua	2.14
Recoleta	0.64
Renaico	0.032
Renca	1.31
Rengo	0.29
Requínoa	0.34
Retiro	0.039
Rinconada	0.37
Romeral	0.051
Río Bueno	0.029
Río Claro	0.075
Río Negro	0.039
Saavedra	0.12
Salamanca	0.19
San Antonio	0.55
San Bernardo	1.94
San Carlos	0.37
San Clemente	0.21
San Esteban	0.093
San Felipe	0.49
San Fernando	0.31
San Ignacio	0.04
San Javier	0.31
San Joaquín	0.85
San José de Maipo	0.15
San Miguel	0.89
San Pedro	0.41
San Ramón	0.5
San Vicente	0.53
Santa Cruz	0.18
Santa Juana	0.038

Santiago	3.61
Talagante	0.39
Talca	1.3
Talcahuano	0.71
Temuco	1.93
Teno	0.15
Teodoro Schmidt	0.18
Tierra Amarilla	0.13
Tiltil	0.14
Timaukel	0.077
Tocopilla	0.3
Toltén	0.053
Tomé	0.21
Torres del Paine	0.25
Traiguén	0.093
Valdivia	1.1
Vallenar	0.19
Valparaíso	2.16
Victoria	0.091
Vicuña	0.1
Villa Alegre	0.11
Villa Alemana	1.05
Villarrica	0.13
Vitacura	0.28
Viña del Mar	1.36
Yerbas Buenas	0.051
Yumbel	0.045
Yungay	0.096

**Number of observations N=1,545**

Question 19. Gender

	%
Male	49
Female	51

**Number of observations N=1,545**

Question 20. Your household's total after-tax monthly net income falls into which of these categories?

		%	Number of respondents
Household	Under 300,000	30%	281
	300,001 - 600,000	32%	374



income (in pesos)*	600,001 - 1,200,000	15%	224
	1,200,001 - 1,800,000	5%	85
	1,800,001 - 2,500,000	2%	41
	2,500,001 or more	2%	50

**Number of observations N=1,545**

Question 21. Before the pandemic, which of the following best describes how often you went on vacation in Chile?

	%
Two to three times per year	22
Four times or more	6
About once per year	44
Less often than once per year	9
Never	19

**Number of observations N=1,335**

Question 22. (open question) On those vacations, how many days in total did you spend in Chile?

	%
0	*
1	2.1%
2	3.7%
3	4.5%
4	4.1%
5	4.9%
6	1.3%
7	21.9%
8	0.5%
9	*
10	8.9%
11	*
12	*
13	*
14	8.9%
15	14.0%
16	*
18	*
19	*
20	3.7%
21	10.7%

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\* About 14% of the respondents were not able to or did not want to respond to the household income question.

22	*
23	*
24	*
25	*
27	*
28	*
30	4.9%
35	*
40	*
45	*
50	*
60	1.2%
84	*
85	*
90	*
160	*
340	*
360	*
365	0.8

Note: Percentage less than 0.5 printed as \*.

**Number of observations N=1,545**

Question 23. Before the pandemic, which of the following options best describes the frequency with which you went on vacation abroad—that is, outside of Chile?

	%
Four times or more	1%
Two to three times per year	2%
About once per year	12%
Less often than once per year	12%
Never	74%

**Number of observations N=530**

Question 24. How many days did you spend on those vacations abroad?

	%
0	2.3
1	1.3
2	1.6
3	3.3
4	1.2
5	6.0
6	1.0
7	20.0
8	1.9
10	11.6
11	*
12	1.8

13	
14	10.2
15	13.5
16	*
17	*
20	5.2
21	3.7
22	0.5
25	0.8
27	*
28	*
30	8.3
35	*
40	*
45	*
60	1.8
90	1.3
120	*
360	*
363	*
365	0.5
600	*

Note: Percentage less than 0.5 printed as \*.

**Number of observations N=1,545**

Question 25. Do you think that the new Constitution of Chile should establish guidelines that guarantee long-term financial sustainability for national protected areas?

	%
Yes	90.4
No	4.3
Don't know or don't want to answer	5.3

**Number of observations N=1,545**

Question 26. (open question) Are there other elements associated with protected areas that the new constitution should consider?

	Nonresponse (%)	Response (%)
P16	0.13	99.87

Note: The majority responded, but some answered "do not know." In that case, the proportion of people who do not know how to answer this question is 29%. Percentages not weighted. Based solely on the sample.

**Number of observations N=1,545**

Question 27. What is the highest educational level achieved by you?

		%	Number of respondents

Education level	Without basic studies	0.4%	3
	Primary (incomplete + complete)	21%	128
	Secondary (incomplete + complete)	53%	584
	University (incomplete + complete)	23%	452
	Postgraduate	2.6%	61