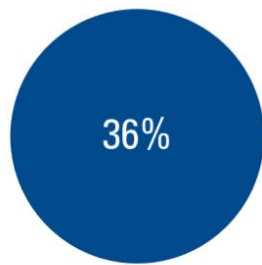


Audience Segmentation of COVID-19 Vaccination Intentions in Aotearoa-New Zealand



Covid-19
Vaccine enthusiasts



Covid-19
Vaccine supporters



Covid-19
Vaccine hesitants



Covid-19
Vaccine sceptics

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Introduction

Audience Segmentation of COVID-19 Vaccination Intentions in Aotearoa-New Zealand

This report is based on findings from a national survey conducted by the School of Communication, Journalism & Marketing—Te Pou Aro Kōrero, Massey University and fielded by Qualtrics. Interview dates: June 26 to July 13, 2020. Interviews: 1040 adults (18+). Average margin of error: +/- 3 percentage points at the 95% confidence level. The research was funded by Massey University.

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Executive Summary

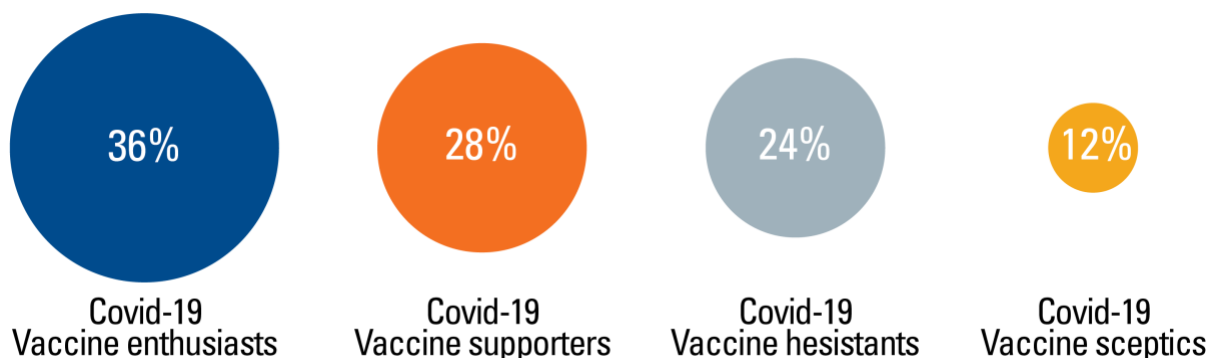
The first stage of any communication campaign is to “know your public.” Public segmentation divides the target population into meaningful subgroups that share similar characteristics. Understanding the different public segments on COVID-19 vaccination intentions can help health authorities communicate the most important and useful information to its target publics.

While several countries were overburdened with COVID-19 cases and deaths, Aotearoa New Zealand was successful to control the transmission of the coronavirus, through strict border controls and effective communication that ensured the public understood what was required and followed the guidelines for safe behaviours (Bloomfield, 2021; Roy, 2020).

A number of COVID-19 vaccines have been developed—and approved for general public administration—in a remarkably short time, only one year after the COVID-19 pandemic was declared in January 2020. Yet the challenge of public vaccination rates prevails with a portion of the population hesitant or sceptical about the safety and the benefits of vaccination.

Drawing on a national survey ($N = 1040$), this report describes public segmentation analysis of the New Zealand public intentions to vaccinate against COVID-19. Previous reports from this data can be accessed here: [Thaker & Menon \(2020\)](#) and [Menon & Thaker \(2020\)](#).

The Aotearoa New Zealand public can be categorised into four segments:



The segmentation was based on five measures with all the segments exhibiting very different levels of intentions and reasons for their intentions. Segments also vary in size – ranging from as small as 12 percent to as large as 36 percent of the population.

They also differ significantly on various measures, including demographics, previous vaccination refusal, support for social and economic restrictions on individuals who refuse to vaccinate against COVID-19, and trust in sources of information.

A survey conducted by the Ministry of Health (Ministry of Health, 2021) found that a majority (69%) were prepared to receive a “well-tested and approved” COVID-19 vaccine. However, a quarter (24%) of respondents “indicated that they would be unlikely to have a COVID-19 vaccine if offered”, and 16% said they would “not accept an offered vaccine”. The Ministry of Health survey indicates a small increase in hesitancy (or at least a decline on acceptance).

Similarly, in a recent online Spinoff poll (Manhire, 2021) conducted in February 2021, when asked, “If a medically approved vaccine was available not at no cost to you, would you take it?” only over half of the respondents said Yes (53%). A quarter (25%) answered no, and 22% said they were unsure. Comparatively, a similar poll in May in 2020 showed that 65% of those polled said they would aim to get vaccinated, 15% said no, and 20% declared to be unsure. This survey also reports an increase in slight hesitancy.

It is important to note that the survey data of this Massey report was collected in mid 2020, therefore the segments and their composition may have changed. On the one hand, some individuals’ intentions may become stronger. For some others, there may have been a shift towards hesitancy due to the complexity surrounding news relating to vaccine safety, approval, and administration challenges. The above two reports from the Ministry of Health and Spinoff suggest a slight increase in hesitancy towards a COVID-19 vaccine.

This report details the audience segments of the COVID-19 vaccination intentions in Aotearoa New Zealand.

COVID-19 Vaccine Enthusiasts (36%)

The COVID-19 Vaccine Enthusiasts represent the largest segment of the New Zealand public. Almost all in this segment (99%) say they will take the vaccine when available, when the choice was constrained to “Yes” or “No.”

An overwhelming majority (98%) in this segment are likely to strongly agree with the statement that they will take the COVID-19 vaccine when available. Similarly, 91% of this segment are willing to put their name on a list to get a COVID-19 vaccine and 80% say they are even willing to pay for the vaccine. They are also likely to give a number of reasons for getting a COVID-19 vaccine, potentially an indication of the amount of time invested in thinking about vaccines.

Demographic Profile: The COVID-19 Vaccine Enthusiasts are more likely to belong to be older age groups (56-65 years, 66 and above), are highly educated, and belong to higher-income groups. They are slightly more likely to be male and less likely to be Māori compared to other ethnicities.

Previous vaccination behaviour: Only about 10% in this segment say they have previously refused vaccination, with a large majority (83%) stating they strongly or somewhat disagree with the statement of refusing previous vaccination. About 6% choose neither response option. About 9% say they have previously refused vaccination to their child, with an overwhelming majority (82%) disagree with refusing vaccination to their child; 10% choose neither.

Support for restrictions: They are likely to support a variety of social control measures for individuals who refuse COVID-19 vaccination (if made mandatory), including higher tax, international travel ban, and restricted entry to public places such as beaches, parks, swimming pools.

Trust in informational sources: The COVID-19 Vaccine Enthusiasts are more likely to say they have very high trust in mass media and scientists as sources of accurate information. They are less likely to trust family and friends, and social media as sources of accurate information. They are less likely trust COVID-19 information on social media and more likely to report seeing fake information on social media.

COVID-19 Vaccine Supporters (28%)

The COVID-19 Vaccine Supporters form the second largest segment among the New Zealand public. Within this segment, almost all choose “Yes” to taking the vaccine when available (95%).

Compared to Vaccine Enthusiasts, Vaccine Supporters are more likely to “somewhat agree” to get the vaccine (74%), to put their name on a list to get the vaccine (75%), and to pay for a vaccine (67%). Although they give fewer reasons to get the vaccine compared to the Enthusiasts, they nevertheless give more reasons compared to the next two segments.

Demographic Profile: The COVID-19 Vaccine Supporters are more likely to belong to younger or in middle aged groups (between 18-45 years), have some education (Level 1-4 Certification, 4-5 Diploma), and belong to middle- and higher-income groups. They are slightly more likely to be male, and more likely to be Asian compared to other ethnicities.

Previous vaccination behaviour: About 17% in this segment say they have previously refused vaccination, with a majority (72%) stating they strongly or somewhat disagree with the statement of refusing previous vaccination. About 12% choose neither response option. About 10% say they have refused vaccination to their child, 19% choose neither, and 70% strongly or somewhat disagree with the statement of refusing vaccination to their child.

Support for restrictions: Vaccine supporters are likely to support a variety of social control measures for individuals who refuse vaccination, including higher tax, international travel ban, and restricted entry to public places such as beaches, parks, swimming pools, albeit to a smaller degree compared to the Vaccine Enthusiasts.

Trust in informational sources: The COVID-19 Vaccine Supporters are more likely to say they have high trust in mass media and scientists as sources of accurate information. They have slightly more trust in social media compared to other segments. They are less likely to trust family and friends as information sources. They are more likely to trust information on social media and report that some information they saw on social media about COVID-19 was fake.

COVID-19 Vaccine Hesitants (24%)

The COVID-19 Hesitants are divided between getting a COVID-19 vaccine or not. While 53% in this segment choose “Yes,” 47% say “No” to getting a COVID-19 vaccine when available.

This segment represents those who are most likely to remain “neutral” to getting the vaccine (79%), putting their name on a list (74%) or willingness to pay for the vaccine (75%). They also state fewer reasons to get or to not to get the vaccine. This group is ‘sitting on the fence’ and could be swayed either way.

Demographic Profile: The COVID-19 Vaccine Hesitants are more likely to belong to be either younger (18-25 years) or middle-aged (36-45 years) groups (compared to other age groups), have low (no qualification) to moderate education levels (certification or diploma), and lower income levels. They are slightly more likely to be female compared to male, and more likely to be Māori compared to other ethnicities.

Previous vaccination behaviour: About 15% in this segment say they strongly or somewhat agree with the statement of refusing previous vaccination. About 30% choose neither response option. About 5% in this segment say they have previously refused vaccination to their child, with over 60% strongly or somewhat disagreeing with refusing vaccination to their child; 35% choose neither option.

Support for restrictions: They are less likely to support any of the social or economic restrictions for individuals who refuse vaccination, if vaccination was made mandatory.

Trust in informational sources: The COVID-19 Vaccine Hesitants are more likely to have high trust in social media as a source of accurate information. They are less likely to trust mass media, scientists, and family and friends as sources of accurate information. They are more likely to trust information on social media on COVID-19 and less likely to report that the information they saw on social media about COVID-19 was fake.

COVID-19 Vaccine Sceptics (12%)

The COVID-19 Sceptics (12%) represents individuals who overwhelmingly say “No” to getting a vaccine (99%) and only 1 percent choose “Yes.”

They also “strongly disagree” with statements about getting a vaccine (56%), putting their name on a vaccine list (74%) and willingness to pay (78%). They provide few reasons for their choices.

Demographic Profile: The COVID-19 Vaccine Sceptics are more likely to among older age groups (46 years and above years), have low education levels, and from low-income groups. They are slightly more likely to be female compared to male, and more likely to be Māori and Pasifika compared to other ethnicities.

Previous vaccination behaviour: About 35% in this segment strongly or somewhat agree with the statement of refusing previous vaccination. About 21% choose neither response option. About 18% say they have previously refused vaccination to their child, and 33% choose neither option.

Support for restrictions: They are least likely to support any of the social or economic restrictions for individuals who refuse vaccination, if the vaccination was made mandatory.

Trust in informational sources: The COVID-19 Vaccine Sceptics is the only segment to say that they trust information from family and friends. However, they are less likely to trust other sources of information, including mass media, social media, and scientists. They report low trust in information on social media on COVID-19 and are more likely to report that the information they saw on social media about COVID-19 was fake.

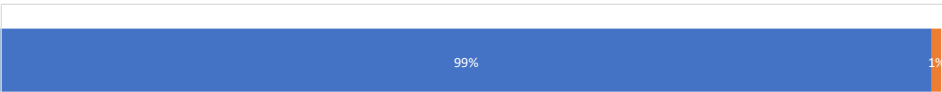
Data Tables and Figures

Audience Segmentation of COVID-19 Vaccination Intentions				
	Vaccine Enthusiasts	Vaccine Supporters	Vaccine Hesitants	Vaccine Sceptics
Cluster Size (<i>N</i> =1040) (unweighted base)	36% (<i>n</i> =368)	28% (<i>n</i> =296)	24% (<i>n</i> =249)	12% (<i>n</i> =127)
I will get vaccinated against the coronavirus, when one becomes available				
Yes	99%	95%	53%	1%
No	1%	5%	47%	99%
I intend to get vaccinated against the coronavirus				
Strongly Agree	98%	21%	1%	0%
Somewhat agree	1%	74%	17%	0%
Neutral	0%	5%	79%	11%
Somewhat disagree	0%	0%	3%	33%
Strongly disagree	0%	0%	0%	56%
I will get vaccinated against the coronavirus even if I must pay for the vaccine				
Strongly Agree	80%	6%	0%	1%
Somewhat agree	11%	67%	5%	0%
Neutral	5%	20%	75%	0%
Somewhat disagree	1%	4%	14%	21%
Strongly disagree	2%	3%	6%	78%
I am willing to put my name on the list to get vaccinated against the coronavirus				
Strongly Agree	92%	2%	2%	0%
Somewhat agree	4%	75%	7%	2%
Neutral	3%	18%	74%	1%
Somewhat disagree	1%	4%	13%	24%
Strongly disagree	1%	1%	4%	73%
Reasons for/against COVID-19 vaccination				
Mean	5.33	4.57	3.11	2.88

COVID-19 VACCINE SEGMENTS

■ Yes ■ No

COVID-19 VACCINE
ENTHUSIASTS (36%)



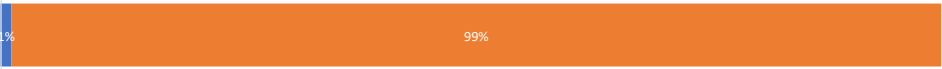
COVID-19 VACCINE
SUPPORTERS (28%)



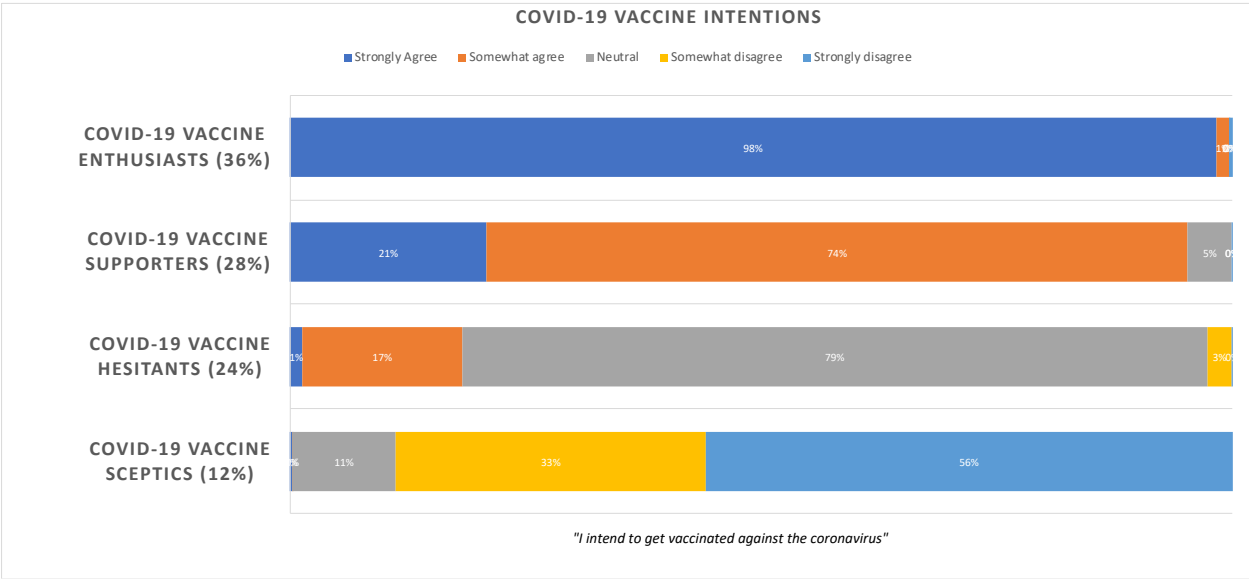
COVID-19 VACCINE
HESITANTS (24%)



COVID-19 VACCINE
SCEPTICS (12%)



"I will get vaccinated against the coronavirus, when one becomes available"



Demographic Profile of the Audience Segments of COVID-19 Vaccination Intentions

	COVID-19 Vaccine Enthusiasts	COVID-19 Vaccine Supporters	COVID-19 Vaccine Hesitants	COVID-19 Vaccine Sceptics	Overall
Cluster Size (N=1040) (unweighted base)	36% (n=368)	28% (n=296)	24% (n=249)	12% (n=127)	100%
Gender					
Male	47%	40%	37%	38%	41%
Female	53%	60%	63%	62%	59%
Age					
18-25	14%	19%	28%	9%	18%
26-35	18%	26%	19%	23%	21%
36-45	16%	18%	20%	13%	17%
46-55	15%	15%	15%	21%	16%
56-65	14%	11%	11%	13%	12%
66 and above	24%	12%	7%	21%	16%
Education levels					
Low	8%	7%	11%	15%	9%
Medium	47%	59%	61%	62%	55%
High	45%	34%	28%	23%	35%
Ethnicity					
European New Zealander	67%	58%	58%	66%	62%
Māori	9%	11%	20%	18%	13%
Pasifika	5%	5%	5%	6%	5%
Asian or other	19%	26%	17%	11%	20%
Income					
Low	44%	47%	62%	63%	51%
Medium	34%	35%	23%	27%	31%
High	22%	18%	15%	10%	18%

COVID-19 VACCINE SEGMENTS BY ETHNICITY

European New Zealander Māori Pasifika Asian or Another Category



PREVIOUS VACCINATION BEHAVIOUR

■ Strongly disagree ■ Somewhat disagree ■ Neither ■ Somewhat agree ■ Strongly agree

**COVID-19 VACCINE
ENTHUSIASTS (36%)**



**COVID-19 VACCINE
SUPPORTERS (28%)**



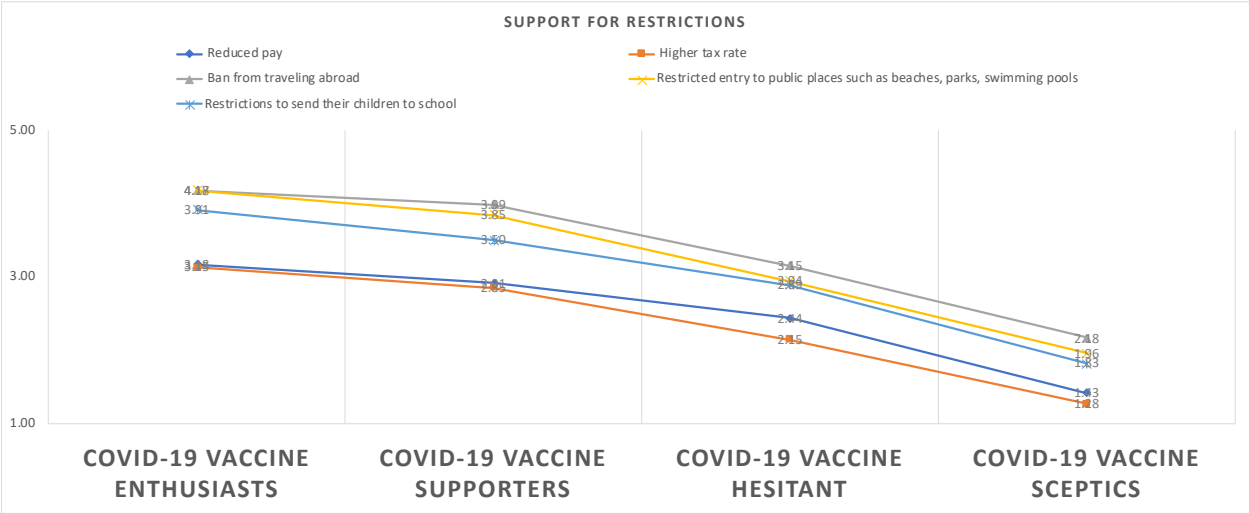
**COVID-19 VACCINE
HESITANTS (24%)**

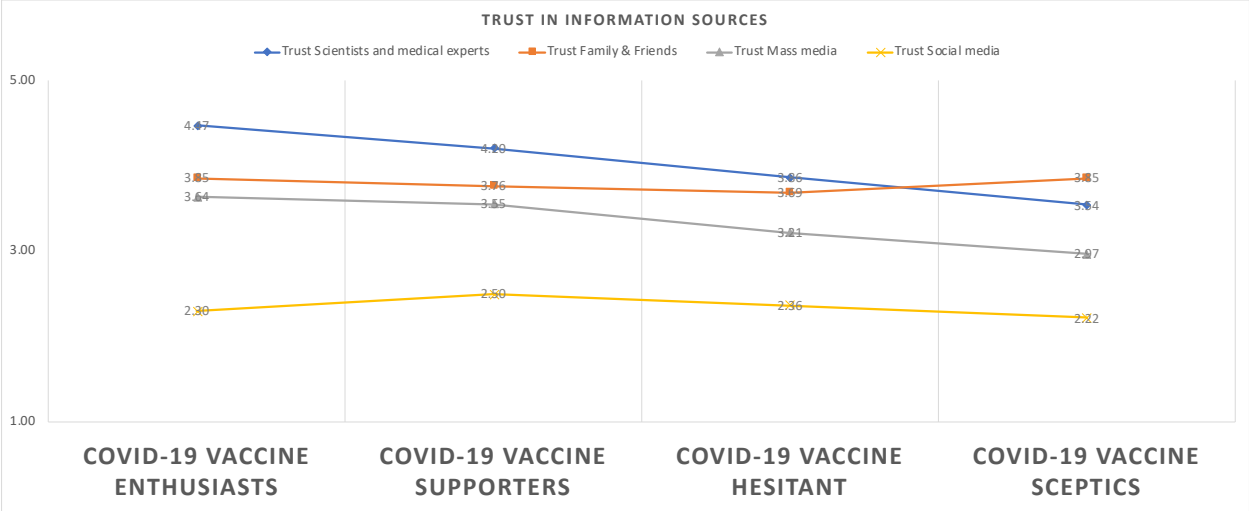


**COVID-19 VACCINE
SCEPTICS (12%)**



"I have previously refused to get vaccinated"





Survey Method

The data in this report are based on a scientific online poll of 1040 New Zealand adults, aged 18 and older, conducted by the School of Communication, Journalism & Marketing—Te Pou Aro Kōrero. Data was collected by Qualtrics. The survey was conducted between June 26 to July 13, 2020. All questionnaires were self-administered by respondents in a web-based environment. The survey took about 22 minutes on average to complete. The data were weighted, post survey, on gender, age, education, and ethnicity to match the New Zealand census estimates. Weights ranged from 0.47 to 3.30, with a mean of 1.21, median of 0.98, and standard deviation of 0.63. 95% of the weights fall between 0.58 and 2.15.

The survey instrument was designed by Drs. Jagadish Thaker (JT) and Vishnu Menon. We acknowledge the help from Dr. Esther Jaspers and Dr. Elena Maydell from Massey University in preparing the questionnaire. John Hilbert helped with the design of the cover page.

Average margins of error, at the 95% confidence level, are plus or minus 3 percentage points. Percentages in a given chart may total slightly higher or lower than 100% due to rounding error.

Audience segmentation

Latent class analysis was conducted using Latent GOLD[®] software (version 5.1). A 3-step process was followed to reduce bias and robustly identify the differences between the segments on demographic and other variables. In the first step, a one through seven segments was tested and a four-segment solution was found to be most appropriate based on standard parameters such as Bayesian Information Criterion (BIC), among others, and $-2LL$ Diff likelihood test between three and four segments, and four and five segments. The four-segment solution best fit the data and was consistent with previous studies. In the second step, individual cases were assigned to latent classes and the latent class scores were saved in a new data file. In step three, latent classification scores are related to demographic and other variables of interest using the Maximum Likelihood (ML) method to correct for the classification error to prevent bias.

Sample Demographics

	<i>N</i> (unweighted)	% (unweighted)	<i>N</i> (weighted)	% (weighted)
Total	1040	100	1040	100
Female	609	58.6	530	51
Male	431	41.4	510	49
<i>Age</i>				
18-25	189	18.2	146	14
26-35	220	21.2	187	18
36-45	175	16.8	166	16
46-55	163	15.7	187	18
56-65	127	12.2	156	15
66 and above	166	16	198	19
<i>Education</i>				
No qualification	96	9.2	199	19
Level 1 to Level 6 diploma	577	55.5	564	54
Bachelor's degree or higher	367	35.3	277	27
<i>Ethnicity</i>				
European New Zealander	648	62.3	640	61.5
Māori	139	13.4	170	16.3
Pasifika	50	4.8	80	7.7
Asian or Another Category	203	19.5	150	14.4
<i>Annual personal income</i>				
Less than \$19,999	280	26.9	286	27.5
\$20,000 to \$39,999	254	24.4	273	26.2
\$40,000 to \$59,999	182	17.5	188	18
\$60,000 to \$79,999	138	13.3	130	12.5
\$80,000 to \$99,999	68	6.5	59	5.6
\$100,000 to \$119,999	64	6.2	55	5.3
\$120,000 or above	50	4.8	46	4.4

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