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The Impact of COVID-19 on the Mobility Needs of an Aging Population in Contra Costa County

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16. Abstract

In 2018, SafeTREC conducted a survey on transportation mobility issues among older adults in California. A follow-up survey planned for 2020, just as the COVID-19 pandemic changed life for all residents, was redesigned to assess mobility needs and changes during the Shelter-in-Place order and focused on COVID-19 impacts. Results indicate that the COVID-19 pandemic and subsequent Shelter-in-Place order have had a major impact on senior mobility. Communications for many were restricted to phone, email, texts, social media and video chats. Among those with a medical problem, just over 60% called a doctor or nurse line or went to a doctor's office, while 11.2% went to an emergency room, and 8.6% did nothing. A total of 8% of respondents said they had run out of food or other important items during the Shelter-in-Place order. Rates of exercise outside the home dropped 20% between January and June 2020, and while over 60% sought outside entertainment in January 2020, by June 2020, nearly 70% accessed their entertainment online at home. Almost 80% of working respondents feared spreading or contracting COVID-19 because of their work or related transportation. Almost 20% felt a lack of companionship or closeness sometimes or often. Over 30% were worried about their current or long-term finances. A total of 84.5% strongly agreed or agreed that the Shelter-in-Place order was necessary. None of the respondents to the follow-up survey were diagnosed with COVID-19, and 88.2% were not concerned about risk of exposure from any member of their household.

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The Impact of COVID-19 on the Mobility Needs of an Aging Population in Contra Costa County

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Table
of
Contents

Table of Contents

List of Tables

List of Figures

Executive Summary

Executive Summary

In 2018, a multidisciplinary research team from the Safe Transportation Research and Education Center (SafeTREC) at UC Berkeley reviewed programs and policies to support the transportation mobility issues of older adults in California — one of the most pressing problems facing the state. The number of state residents age 65 and older is expected to double between 2012 and 2050, while the number those age 85 and above is expected to increase by over 70 percent between 2010 and 2030. Results of the original survey, conducted in Contra Costa County, California, indicated, among other findings, that a majority of seniors are car dependent, that some older adults miss important activities due to mobility limitations, and that most older adults want to "age in place."

A follow-up survey was planned for 2020 just as the COVID-19 pandemic changed life for all residents. The survey was redesigned to assess mobility needs and changes during the Shelter-in-Place order in the state and county, and focused on the impact of COVID-19 on a wide range of aspects of respondents' lives, including respondents' work status, social isolation, communication, economic situation, views of government regulatory efforts, and health concerns during the pandemic.

Over 90 percent of respondents in both surveys confirmed that they possessed a valid driver's license, and that their driving ability was not limited by any factor. The survey results indicate that the COVID-19 pandemic and subsequent Shelter-in-Place order have had a major impact on senior mobility. The average number of trips for grocery and other shopping was reduced from 3.5 times a week in 2018 to 1.9 in June 2020, while travel to work was cut by two-thirds.

Respondents' health status changed little over the two-year period between surveys, with approximately 88 percent of respondents rating their health as good to excellent. In both 2018 and 2020, over 80 percent of respondents said they used no mobility devices, such as canes, walkers, or wheelchairs.

Respondents were asked if they had missed an activity during the past six months, including doctor appointments and shopping trips due to lack of a transportation option. Possibly due to the high rate of cancellations and delayed treatments of medical care during the early months of the pandemic, 96.1 percent of 2020 respondents had not missed appointments compared with 92.9 percent in 2018.

Overall, 58.5 percent of respondents confirmed that they used available public transportation in the past year, including bus service and BART, compared with 86.8 percent in 2018. The percentage of respondents who used special transportation services in their community (including paratransit and other non-emergency services) rose from 9.7 percent to 12.6 percent of respondents between 2018 and 2020. While there was an overall increase in the usage of rideshare services between the two survey years, it appears that the change is attributable to new survey respondents. Rideshare use by age in 2020 showed an over 30 percent increase in usage by those ages 55 to 59, compared with a 9.6 percent increase among the 85 and older group.

The pandemic resulted in communications for many people being restricted to phone and online conversations and meetings. Over 90 percent of respondents in 2020 said they had a computer at home with a high-speed internet connection, and nearly two-thirds of respondents said they used email every day to communicate with and stay connected with friends and family. Over 30 percent of respondents used social media daily, while more than half texted with others daily. Online video chats were another way that many respondents communicated and stayed connected with friends and family (this question was not asked in the 2018 survey). In 2020, over three-quarters of respondents used video chats such

as Zoom, FaceTime or Hangouts. Due to the pandemic and Shelter-in-Place order, over half of those who used online video chat said it had replaced all of their in-person meetings or personal contacts.

Just under half of all respondents indicated that during the Shelter-in-Place order, they had experienced a medical problem that necessitated consulting a doctor. Of those who had such a problem requiring medical attention, 38.7 percent called a doctor or nurse line to discuss it, 24.1 percent went to a doctor's office for care, 11.2 percent went to an emergency room, 9.6 percent had a video consultation with a medical professional, 7.7 percent made an appointment for a future date, and 8.6 percent did nothing about the problem.

A total of 8.0 percent of respondents said they had run out of food or other important items during the Shelter-in-Place order.

While 82.5 percent of survey respondents reported that they exercised outside the home in January 2020, prior to the pandemic outbreak, this percentage dropped to 63.6 percent by June 2020. Over one-third went to the gym in January, yet only 0.5 percent did so in June. The percentage of respondents who walked for exercise increased from 74.2 percent before the shutdown to 95.4 percent afterward.

Respondents were asked how many times per week they left their homes before the Shelter-in-Place order to seek entertainment, such as movies, theater plays or music performances. A total of 61.4 percent responded that they sought outside entertainment in January 2020. By June 2020, 69.9 percent accessed such entertainment online at home.

Among respondents, 26.4 percent were working in January 2020 (the low numbers reflect the high rate of retirement among this cohort). Overall, 35.6 percent stated they were working fewer hours, while 22.5 percent reported working more hours during the order. A total of 16.5 percent of workers noted that their travel to work had changed, 6.7 percent retired or stopped working, 12.0 percent began working at home, 3.1 percent changed jobs, and 15.9 percent were laid off or furloughed due to the pandemic. Nearly 78 percent of respondents feared spreading or contracting COVID-19 because of their work or their transportation to work.

A total of 59.5 percent said they never felt a lack of companionship or closeness, while almost 20 percent felt a lack of companionship or closeness sometimes or often. Just over half of respondents said they had four or more people with whom to discuss matters of personal importance, while 3.5 percent felt there was no one with whom they could discuss such matters.

Respondents were asked about the economic impact on them due to the pandemic and the Shelter-in-Place order. A total of 6.6 percent said they were much more or a little more comfortable than before the pandemic, 74.5 percent said they felt about the same level of comfort, and 19 percent felt less comfortable than before the Shelter-in-Place order.

A total of 84.5 percent of respondents strongly agreed or agreed with the statement "The Shelter-in-Place order is necessary to keep residents healthy and safe."

None of the respondents to the 2020 follow-up Senior Mobility Survey were diagnosed with COVID-19, and 88.2 percent were not concerned about any member of their household being exposed to the virus and that they could get infected.

Contents

Introduction

In 2018, a multidisciplinary research team from the Safe Transportation Research and Education Center (SafeTREC) at UC Berkeley reviewed programs and policies to support transportation mobility issues of older adults in California. Meeting the transportation and mobility needs of an aging population is one of the most pressing problems facing California. The number of state residents age 65 and older is expected to double between 2012 and 2050, and the number those age 85 and above is expected to increase by over 70 percent between 2010 and 2030. Declines in physical function related to age may reduce mobility options dramatically and create needs and opportunities for alternative forms of transportation.

The SafeTREC study, "Mobility Challenges Facing Older Adults" published in early 2019, found that older adults want to "age in place." Survey participants — 510 residents ages 55 and older in Contra Costa County, California — were asked about their mobility patterns (e.g., whether they have a driver's license, access to a vehicle, what mode of transportation they use for various trip activities); driving limitations (e.g., driving situations they avoid, such as interstate or nighttime driving); and consequences of reduced mobility (e.g., whether they have missed activities due to a lack of transportation). Results of the survey indicated that a majority of seniors are car dependent. Some older adults miss important activities due to mobility limitations associated with increasing age, poorer health, living alone, not having a licensed driver in the household, or having a disability. Mobility options are also limited in some geographic areas and demographic groups. Based on these findings and those in related studies, the SafeTREC study concluded that the travel options and the quality of life for older adults, now and in the future, can be greatly enhanced if efforts are made to develop mobility solutions beyond use of private vehicles.

A follow-up survey was planned for 2020 just as the COVID-19 pandemic changed life for all residents. The survey was redesigned to assess mobility needs and changes during the Shelter-in-Place order in the state and county, and focused on the impact of COVID-19 on respondents' work status, social isolation, communication, economic situation, views of government regulatory efforts, and health concerns during the pandemic. The new sample (N=485) included all respondents from the original 2018 survey who had agreed to be re-contacted (414), and added newly recruited respondents (71) from the county, ages 60 and above. A total of 302 surveys were completed for the follow-up survey.

Methods

Survey Development

The second wave of the Senior Mobility Survey was designed as a follow-up to the 2018 study and included additional items to assess older adults' mobility needs and changes during the Shelter-in-Place order in the State of California. This version of the Senior Mobility Survey was conducted as a telephone survey as well as an online survey with previous participants and supplemented with new recruited respondents residing in Contra Costa County, California.

Study Location

Figure 1 shows the geographic distribution of respondents in Contra Costa County, California and the number of complete surveys by geographic area. The numbers shown denote the number of respondents per zip code — zip codes with fewer than ten respondents are marked in green and zip codes with more than ten respondents are marked in yellow.
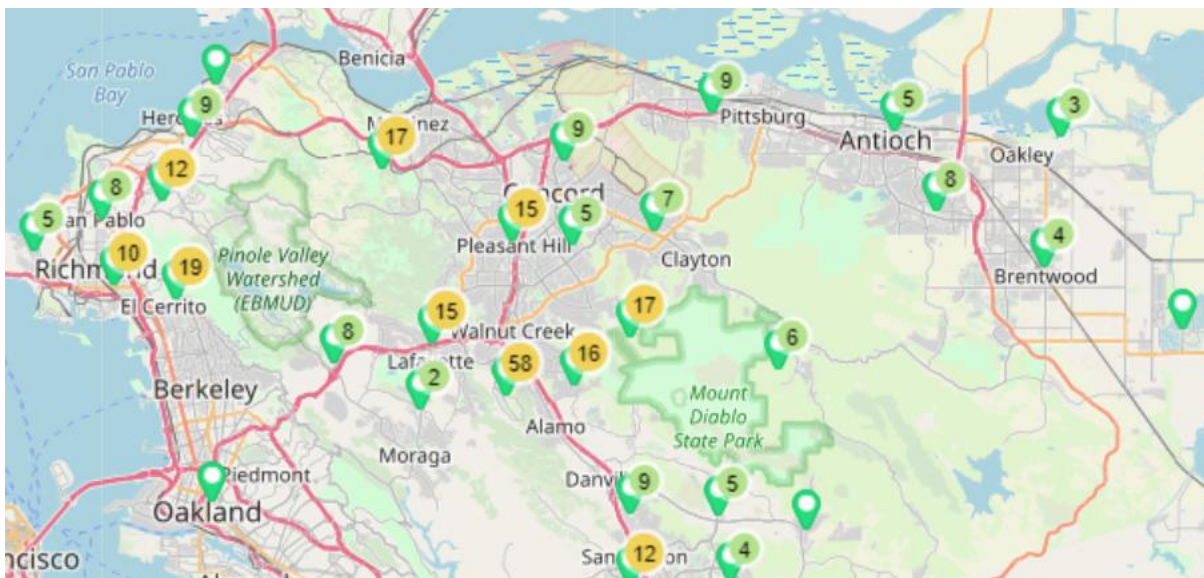
Figure 1. Cluster distribution of completed surveys in Contra Costa County

Data Collection Procedures and Sampling Methods

Data was collected using a computer-assisted telephone interviewing system (CATI) and a web-based survey system in June 2020. The survey took about 20 minutes over the telephone or online and respondents received a $10 gift card for their participation. A total of 302 surveys were completed (see Table 1), of which 198 (65.6%) were administered via telephone and 104 (34.4%) were self-administered online surveys (see Table 2).

Survey Sample

The sample for this survey was respondents of the 2018 survey, who agreed to participate in future surveys and provided an email or phone number. In addition, an outreach effort was made to recruit additional eligible Contra Costa County residents through existing email and phone lists.

In total, 485 records were attempted, resulting in 302 completed surveys. Among the attempted records, 414 were respondents who completed the 2018 wave of the survey, while 71 were newly recruited respondents age 60 and over, living in Contra Costa County. Of the 302 participants who completed the 2020 survey, 86.8 percent had completed the 2018 survey.

Table 1. Sample sources and completed surveys

Sample	Number of Records	Number of Completed Surveys
Respondent sample, 2018	414	262
Additional recruits, 2020	71	40
Total	485	302

The sample disposition for all records of the study is shown in Table 2. Of all 485 records attempted, 41 were invalid or not eligible for participation (shown in blue text in Table 2, below), leaving 444 valid records for data collection. All respondents who had provided an email address were sent a link to the survey and follow-up telephone reminders to complete the surveys, while all other respondents were contacted via phone and offered the opportunity to complete the survey online or on the phone.

Table 2. Sample disposition

Disposition	Number of Records
Completed CATI	198
Completed ONLINE	104
Web reminder call made	5
Partial CATI	1
Partial online	2
HARD-refusal at beginning	44
SOFT-refusal at beginning	4
Answering machine, no message	54
Answering machine message left	9
Normal busy	1
No answer	18
English callback	4
Physically/mentally unable	5
Fax/modem/data line	1
Non-working/disconnected number	30
Business number/no residence	1
Not qualified - In CC but outside age	2
Not qualified - not in CC County	2
TOTAL ATTEMPTED	485
INVALID NUMBERS	41
TOTAL SAMPLE	444

Survey Data Analysis

Analysis Notes

The data analysis outlined in this report only included valid answers and excludes all reported "Don't know" and "Prefer not to answer" responses as well as response refusals. Therefore, the valid percentage of responses differs for each question due to the number of valid answers given to a particular question. The total number of answers given per survey question is shown in the frequency column.

In addition, some questions were skipped based on selected answers within the survey and the sample sizes for each survey item vary accordingly.

- For multiple choice questions, respondents could give more than one answer. The listed "Percent of cases" column is calculated from the total number of respondents who answered a question. The resulting percentage is more than 100.0 percent and reflects the percentage of respondents (not the percentage of answers given, which would add up to 100.0 percent).

- All findings outlined in this report are based on the weighted data with the weights applied as outlined in Table 3.

- Comparisons of means for respondent data from the 2020 data collection, as well as from 2018 and 2020 comparisons, were conducted using t-tests for related or paired samples with a 95 percent confidence level assumption. The significance is reported as probability p as strength of evidence. Additionally, for comparison of the 2018 and 2020 data, the McNemar test for related samples was employed, with tests conducted on weighted and unweighted data as confirmation.

Data Weights

To adjust for the distribution of age and gender in the collected data, which differed from the Census distribution, weights were created and applied in the analysis. Figure 2 shows the formula used to calculate the population weights.

$$W_p = \frac{\text{Percent of Population}}{\text{Percent of Respondents}} = \frac{P_i/P_{total}}{R_i/R_{total}}$$

Figure 2. Proportional weight calculation formula

The collected data by age and gender, Census data from the American Community Survey (ACS), calculated gender and age weights, as well as the weighted age and gender distribution are shown in Table 3.

Table 3. Weights by age

Age Range	Census Data* Male	Census Data* Female	Survey Data Male	Survey Data Female	Weights Male	Weights Female	Weighted Survey Data Male	Weighted Survey Data Female
55 to 59 years	48.9%	51.1%	33.3%	66.7%	1.47	0.77	44.4%	55.6%
60 to 64 years	48.1%	51.9%	30.3%	69.7%	1.59	0.74	48.5%	51.5%
65 to 69 years	45.4%	54.6%	40.4%	59.6%	1.12	0.92	45.3%	54.7%
70 to 74 years	46.1%	53.9%	35.7%	64.3%	1.29	0.84	45.7%	54.3%
75 to 79 years	44.1%	55.9%	31.9%	68.1%	1.38	0.82	44.4%	55.6%
80 to 84 years	36.2%	63.8%	41.7%	58.3%	0.87	1.09	36.1%	63.9%
85 years+	42.8%	57.2%	30.0%	70.0%	1.43	0.82	43.3%	56.7%
Total	**46.0%**	**54.0%**	**35.1%**	**64.9%**	**1.31**	**0.83**	**44.2%**	**55.8%**

*Source: Census.gov: ACS DEMOGRAPHIC AND HOUSING ESTIMATES 2018 American Community Survey

Results

Demographic Comparison with Prior Study

Compared with 2018, the 2020 survey respondents were slightly older, more "white," slightly less likely to be married, of comparable wealth, and equally likely to have a valid driver's license and access to a vehicle. Of respondents, 9.4 percent self-identified as Hispanic in 2018, compared with 8 percent in 2020. Family of origin was listed as "white" among 82 percent of 2018 respondents, and 87 percent in 2020. Over 57 percent reported they were married in 2018, compared with 54.6 percent in 2020. The 2020 survey respondents had slightly higher educational attainment than the 2018 sample; nearly one third had bachelor's degrees and another 38 percent had at least a master's degree in 2020, compared with a total of 65.2 percent college grads in 2018. Household income was above $100,000 per year for 40.6 percent of respondents in 2018, compared with 39.3 percent in 2020. Approximately 93 percent of respondents had a valid driver's license in both surveys and 98 percent of those drivers regularly had access to a motor vehicle

Survey Data Demographics

In the 2018 survey, the mean age of all respondents was 71.3 years and the median was 71.0. The mean and median age of follow-up respondents was approximately 74 years, about 3 years older than in 2018. The coded and weighted age ranges and the age averages, along with the comparisons with the 2018 data are shown in Table 4.

Table 4. Mean and median age of respondents

Age Range	Frequency	Percent	2018 Percent
55 to 59 years	9	3.0%	4.7%
60 to 64 years	33	10.9%	18.1%
65 to 69 years	52	17.2%	20.4%
70 to 74 years	70	23.2%	23.9%
75 to 79 years	72	23.8%	14.1%
80 to 84 years	36	11.9%	11.4%
85 years and over	30	10.0%	7.5%
Total	**302**	**100.0%**	**100.0%**
	Age	**2018 Age**	
Mean	73.7	71.3	
Median	74.0	71.0	

The average time lived in Contra Costa County is shown in Table 5 and indicates that the majority of study participants (79.1%), have lived in Contra Costa County for over ten years, compared with 85.3 percent in 2018.

Table 5. Average time lived in Contra Costa County

Q1	Frequency	Percent	2018 Percent
Less than 5 years	14	4.5%	6.7%
5-10 years	50	16.4%	7.9%
More than 10 years	239	79.1%	85.3%
Total	**302**	**100.0%**	**100.0%**

The majority of respondents (88.2%), own their home, compared with 91.3 percent in 2018, while 7.7 percent rented their home in both 2018 and 2020 (Table 6).

Table 6. Home ownership

Q2	Frequency	Percent	2018 Percent
Own	266	88.2%	91.3%
Rent	23	7.7%	7.7%
Living with family member or friend	7	2.5%	0.0%
Other arrangement	5	1.6%	1.0%
Total	**302**	**100.0%**	**100.0%**

A total of 17.1 percent of respondents live in a retirement community/assisted living facility (Table 7).

Table 7. Reside in retirement community/assisted living facility

Q3	Frequency	Percent
Yes	52	17.1%
No	250	82.9%
Total	**302**	**100.0%**

Living arrangements are shown in Table 8, with a comparable distribution between 2018 and 2020. A total of 298 respondents provided 352 answers. Over half of all respondents (53.5%), live with a partner, while 32.4 percent live alone. Combined, 67.6 percent of respondents in 2020 live with someone in their household, compared with 71.3 percent in 2018.

Table 8. Living arrangement

Q4	Frequency	Percent	2018 Percent
Your partner	159	53.5%	57.7%
Child/children under 18	5	1.8%	3.8%
Child/children 18 and older	60	20.2%	18.6%
Child/children away at school that you support	2	0.7%	2.5%
Parents	6	2.1%	2.1%
Other adult relatives or friends	22	7.5%	6.5%
I live alone	97	32.4%	28.7%
Total	**352**	**118.3%**	**120.0%**

Overall, 8.0 percent of respondents identified as Hispanic, similar to the 2018 data.

Table 9. Hispanic origin

Q44	Frequency	Percent	2018 Percent
Yes	24	8.0%	9.4%
No	272	92.%	90.6%
Total	**504**	**100.0%**	**100.0%**

Family of origin responses are shown in Table 10. Excluding "Other specified" responses, 289 respondents provided 297 answers and the total percentage of answers totals 102.8 percent. A total of 87.0 percent of all respondents indicated "White," while 8.3 percent indicated "Black/African American," and 4.2 percent stated "Asian."

Table 10. Family of origin

Q45	Frequency	Percent	2018 Percent
Native American	5	1.8%	1.6%
Other Pacific Islander	1	0.3%	0.2%
American Indian	1	0.4%	0.8%
Asian	12	4.2%	6.5%
Black/African American	24	8.3%	8.1%
White	252	87.0%	82.0%
Two or more races	2	0.8%	3.0%
Total	**297**	**102.8%**	**102.1%**

Marital status is shown in Table 11, with 54.6 percent of respondents stating "Married," comparable to 57.3 percent of respondents in 2018.

Table 11. Marital status

Q46	Frequency	Percent	2018 Percent
Married	161	54.6%	57.3%
Not married, living with partner	13	4.5%	2.4%
Separated	3	1.0%	1.0%
Divorced	39	13.2%	12.1%
Widowed	57	19.3%	19.2%
Never married	22	7.4%	8.1%
Total	**295**	**100.0%**	**100.0%**

Education level by gender and comparison with 2018 responses is shown in Table 12. A quarter of all respondents have a bachelor's degree and about another quarter have a master's degree.

Table 12. Education level

Q47	Frequency	% Total	% Male	% Female	2018 Total Percent	2018 % Male	2018 % Female
Grades 1-8	0	0.0%	0.0%	0.0%	0.5%	0.9%	0.0%
Grades 9-11	0	0.0%	0.0%	0.0%	0.6%	0.9%	0.4%
Grade 12	16	5.3%	0.7%	8.9%	8.2%	5.8%	10.3%
Some college	47	15.7%	13.4%	17.8%	16.5%	12.9%	19.5%
Vocational school	4	1.5%	2.2%	1.2%	1.4%	1.3%	1.1%
Associate degree	20	6.5%	4.5%	8.3%	7.8%	8.5%	7.4%
Bachelors' degree	78	25.9%	25.4%	26.0%	26.3%	24.1%	28.0%
Some graduate school	20	6.6%	5.2%	7.7%	5.7%	4.9%	6.0%
Masters' degree	79	26.2%	24.6%	27.2%	23.4%	21.0%	25.2%
PhD or equivalent	37	12.4%	23.9%	3.0%	9.8%	19.6%	2.1%
Total	**301**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 13 shows household income and the comparison with 2018 data. Combined, 39.3 percent of respondents have a household income of $100,001 or more, similar to the 40.6 percent reporting that income level in 2018.

Table 13. Household income

Q48	Frequency	Percent	2018 Percent
Less than $10,000	4	1.7%	1.1%
$10,001 to $15,000	3	1.1%	1.7%
$15,001 to $20,000	8	3.1%	2.3%
$20,001 to $30,000	15	5.9%	6.2%
$30,001 to $40,000	14	5.3%	7.8%
$40,001 to $50,000	23	8.7%	5.7%
$50,001 to $60,000	23	8.8%	8.8%
$60,001 to $70,000	15	6.0%	7.4%
$70,001 to $80,000	17	6.7%	6.4%
$80,001 to $90,000	15	5.8%	4.7%
$90,001 to $100,000	20	7.6%	7.3%
$100,001 to $135,000	46	17.6%	15.2%
Greater than $135,000	56	21.7%	25.4%
Total	**258**	**100.0%**	**100.0%**

Driving Limitations

Asked if they had a valid driver's license, a total of 92.7 percent confirmed this, comparable to the 93.5 percent in 2018. Overall, slightly more females than males had a driver's license, without any significant differences between genders (Table 14).

Table 14. Driver's license and gender

Q5	Male	2018 Male	Female	2018 Female	Total	2018 Total
Yes	91.0%	94.3%	94.0%	92.9%	92.7%	93.5%
No	9.0%	5.7%	6.0%	7.1%	7.3%	6.5%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Respondents with a valid driver's license were also asked if they had access to a motor vehicle (Table 15). A total of 97.9 percent had access to a vehicle, slightly higher for females (98.1%), compared with males (97.5%).

Table 15. Access to motor vehicle and gender

Q6	Male	2018 Male	Female	2018 Female	Total	2018 Total
Yes	97.5%	99.1%	98.1%	97.0%	97.9%	97.9%
No	2.5%	0.9%	1.9%	3.0%	2.1%	2.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Over 90 percent of respondents in both years stated that their driving ability was not limited by any factor (Table 16). A total of 4.8 percent in 2020, compared with 1.3 percent in 2018, stated that their driving ability was fully limited, while 3.8 percent stated that their ability was somewhat limited (compared with 8.2 percent in 2018). This seems reasonable, given that 86.8 percent of respondents in the present survey also participated in the original 2018 survey, and that the average age of the population grew two years between surveys.

Table 16. Limited driving ability

Q11	Frequency	Percent	2018 Percent
Yes, fully limits driving	14	4.8%	1.3%
Yes, somewhat limits driving	11	3.8%	8.2%
No	273	91.4%	90.6%
Total	**299**	**100.0%**	**100.0%**

Weekly Activities

Respondents were asked about their common activities over the past week (grocery and other shopping, going to a pharmacy, working). The survey results indicate that the COVID-19 pandemic and subsequent Shelter-in-Place order have had a major impact on senior mobility (Table 17). The average number of trips for grocery and other shopping were reduced from 3.5 times a week in 2018 to 1.9 in June 2020. Travel to work was cut by two-thirds, from an average of 0.9 to 0.3 times per week (the low numbers reflect the high rate — approximately 70 percent in 2018 — of retirement among this cohort).

Table 17. Common activities in the past week

Q7	2020 Mean Number of Times	2018 Mean Number of Times
Grocery shopping	1.3	2.2
Other shopping	0.6	1.3
Pharmacy	0.4	0.4
Work	0.3	0.9

Several survey questions referred to the mode of transportation chosen for trips, before and during the pandemic. As Tables 18-20 show, there were only minor differences in travel mode for grocery shopping, other shopping or trips to a pharmacy.

Table 18. Travel mode to grocery shopping

Grocery Shopping - Mode	2020	2018
Drive yourself	88.1%	89.9%
Have others drive you	12.4%	10.7%
Public transport	0.3%	1.3%
Walk	4.6%	3.8%
Bicycle	0.4%	1.2%
Ride-share service	1.3%	0.6%
Special transportation service	0.0%	0.4%

Table 19. Travel mode to other shopping

Other Shopping - Mode	2020	2018
Drive yourself	96.8%	91.6%
Have others drive you	4.7%	7.9%
Public transport	0.0%	1.5%
Walk	3.8%	2.3%
Bicycle	0.0%	1.1%
Ride-share service	0.8%	0.4%

Table 20. Travel mode to pharmacy

Pharmacy - Mode	2020	2018
Drive yourself	82.2%	81.0%
Have others drive you	12.3%	13.8%
Public Transport	0.0%	0.8%
Walk	5.5%	3.2%
Bicycle	0.0%	1.2%

The one activity that did show a difference in the selected mode of transportation was travel to work. Most of the shift was toward driving oneself to work, increasing from 87.1 percent in 2018 to 93.7 percent in 2020. In 2018, 13.5 percent of respondents utilized public transit for work travel, while in June 2020, only 6.3 percent did so. In 2018, 3.7 percent had others drive them to work — a travel mode that was not used at all in 2020.

Table 21. Travel mode to work

Work Travel - Mode	2020	2018
Drive yourself	93.7%	87.1%
Have others drive you	0.0%	3.7%
Public transport	6.3%	13.5%
Walk	0.0%	2.5%
Bicycle	0.0%	3.9%
Special transportation services	0.0%	0.9%

Health Status

Respondents' aggregate health status changed little over the two-year period between surveys. When asked about self-rated health status, 88.1 percent of respondents rated their health as "Excellent," "Very Good" or "Good" compared with a similar 87.7 percent in 2018 (Table 22).

Table 22. Health status

Q9	Frequency	Percent	2018 Percent
Excellent	80	26.6%	28.5%
Very good	99	33.1%	33.8%
Good	85	28.4%	25.4%
Fair	26	8.7%	10.3%
Poor	9	3.2%	2.1%
Total	**300**	**100.0%**	**100.0%**

Health status by gender of respondent in shown in Table 23, without any significant differences.

Table 23. Health status by gender

Q9 by gender	Male	Female	2018 Male	2018 Female
Excellent	21.8%	30.7%	28.6%	28.5%
Very good	36.8%	30.1%	34.8%	33.1%
Good	29.3%	27.7%	25.1%	25.6%
Fair	8.3%	9.0%	8.8%	11.4%
Poor	3.8%	2.4%	2.6%	1.4%
Total	100.0%	100.0%	100.0%	100.0%

Table 24 shows health status by age group without significant differences between the age groups.

Table 24. Health status by age group

Q9 by age group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 + over
Excellent	22.2%	36.4%	21.2%	30.0%	37.5%	14.7%	10.0%
Very good	44.4%	24.2%	40.4%	31.4%	31.9%	29.4%	36.7%
Good	22.2%	24.2%	30.8%	20.0%	25.0%	44.1%	36.7%
Fair	0.0%	12.1%	7.7%	15.7%	1.4%	11.8%	6.7%
Poor	11.1%	3.0%	0.0%	2.9%	4.2%	0.0%	10.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In both 2018 and 2020, approximately 83 percent of respondents said they used no mobility devices, such as canes, walkers, or wheelchairs (Table 25).

Table 25. Mobility devices used

Q10	Frequency	Percent	2018 Percent
Yes, cane	38	12.5%	13.9%
Yes, walker	20	6.5%	5.1%
Yes, wheelchair	6	2.0%	1.3%
No mobility device	252	83.4%	83.0%
Total	315	104.4%	103.3%

Missed Activities

Respondents were asked if they had missed an activity during the past six months, including doctor appointments and shopping trips due to lack of a transportation option. Possibly due to the high rate of cancellations and delayed medical care treatments during the early months of the pandemic, rates of those who missed appointments in the previous six months decreased. The majority of respondents, 96.1 percent, stated that they did not miss any appointment or outings because they lacked a transportation option, compared with 92.9 percent in 2018 (Table 26). Of those few respondents who missed an appointment due to transportation, there was no significant difference compared with the 2018 survey.

Table 26. Missed activity in past six months due to lack of transportation

Q12	Frequency	Percent	2018 Percent
Yes	12	3.9%	7.1%
No	289	96.1%	92.9%
Total	**301**	**100.0%**	**100.0%**

Of those respondents who missed an appointment due to lack of transportation, 38.1 percent had no valid driver's license compared with 36.4 percent in 2018. Only 1.4 percent of respondents with a driver's license stated having missed an appointment (Table 27). The comparison with the 2018 showed no significant differences.

Table 27. Missed activity in past six months by valid driver's license status

	Valid Driver's License		2018 Valid Driver's License	
Q12	Yes	No	Yes	No
Yes	1.4%	38.1%	5.0%	36.4%
No	98.6%	61.9%	95.0%	63.6%
Total	100.0%	100.0%	100.0%	100.0%

Use of Public Transportation

Overall, 58.5 percent of respondents confirmed that they used available public transportation in their community in the past year, including bus service and BART, compared with 86.8 percent in 2018 (Table 28). The 28.3 percent decrease in the use of public transportation services between 2020 and 2018 is significant (p=0.05).

Table 28. Public transportation use

Q13	Frequency	Percent	2018 Percent
Yes	176	58.5%	86.8%
No	125	41.5%	13.2%
Total	301	100.0%	100.0%

Table 29 shows the percentage of respondents who used special transportation services in their community (including paratransit and other non-emergency services), which rose from 9.7 percent to 12.6 percent of respondents between 2018 and 2020 — a 2.9 percent increase at that is significant at p=0.05.

Table 29. Special transportation services use

Q14	Frequency	Percent	2018 Percent
Yes	38	12.6%	9.7%
No	263	87.4%	90.3%
Total	301	100.0%	100.0%

While there was an overall increase in the use of rideshare services between the two survey years, it appears that the change was only attributable to new survey respondents (Table 30).

Table 30. Rideshare use

Q15	Frequency	Percent	2018 Percent
Yes	161	53.3%	44.5%
No	141	46.7%	55.5%
Total	**302**	**100.0%**	**100.0%**

When categorizing the use of rideshare services by age, the 2020 survey shows a large (over 30 percent) increase by those ages 55 to 59, and double-digit increases for those ages 65 to 84 (Table 31). In contrast, usage only increased 2.2 percent in the 60 to 64 age group, and 9.6 percent in the 85 and older group.

Table 31. Rideshare use by age group

Q15 by age group	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 + over
2018	58.3%	55.4%	47.1%	50.0%	40.3%	22.4%	23.7%
2020	88.9%	57.6%	59.6%	60.0%	55.6%	33.3%	33.3%
Increase since 2018	30.6%	2.2%	12.5%	10.0%	15.3%	10.9%	9.6%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Communication Services

The pandemic resulted in communications for many people being restricted to phone and online conversations and meetings. Respondents in 2020 were queried about their communications options and their internet use.

Over 90 percent of respondents in 2020 said they had a computer at home with a high-speed internet connection. Another 3.4 percent said they had a computer, but their internet service was unreliable, while 5.8 percent reported that they did not have a computer with internet service (Table 32).

Table 32. Computer with internet service

Q16	Frequency	Percent
Yes, with high speed internet	272	90.7%
Yes, but spotty internet service	10	3.4%
No	17	5.8%
Total	**299**	**100.0%**

In 2020, nearly two-thirds (63.7%) of respondents said they used email every day to communicate with and stay connected with friends and family, while another 20 percent said they used email at least every week. Nearly 32 percent of respondents used social media daily, while another 16 percent used social media sites at least weekly. A total of 54.4 percent of respondents texted with others daily and another 18 percent at least once a week. In contrast, 8.8 percent said they never used email, 18.6 percent said they never used text messages, and 38.6 percent of the senior respondents never used social media (Table 33).

Table 33. Email, social media and text communication

Q17-Q18-Q19	Email	Social Media	Text
Every day	63.7%	31.9%	54.4%
A couple of times a week	14.0%	10.8%	13.4%
Once a week	5.7%	5.4%	4.4%
A couple times a month	4.0%	3.4%	4.6%
About once a month	1.7%	3.8%	1.8%
Less than once a month	2.1%	6.1%	2.3%
Never	8.8%	38.6%	18.6%
I don't have a mobile phone	--	--	0.5%
Total	**100.0%**	**100.0%**	**100.0%**

Online video chats were another way that many respondents communicated and stayed connected with friends and family (Table 34, this question was not asked in the 2018 survey). In 2020, 77.3 percent of respondents used video chat options such as Zoom, FaceTime or Hangouts. A total of 7.2 percent of respondents used online video chat to stay connected on a daily basis, with 25.8 percent using video chat a few times per week, 16.5 percent once a week, 10.2 percent more than once per month, and 17.6 percent less than once per month. A total of 22.7 percent of the respondents in 2020 said they never used online video chat to connect with others.

Table 34. Use of online video chat

Q20	Frequency	Percent
Every day	22	7.2%
A couple times a week	78	25.8%
Once a week	50	16.5%
A couple times a month	31	10.2%
Less than once a month	53	17.6%
Never	68	22.7%
Total	**302**	**100.0%**

Due to the pandemic and Shelter-in-Place order, 54.7 percent of those who used online video said it had replaced all of their in-person meetings or personal contacts, while another 22.5 percent said it had replaced almost all of these meetings (Table 35). Nearly 16 percent said it had replaced half or less than half of these meetings, and only 7 percent said it had replaced none. Video chat use was quite significant and helped to alleviate some of the isolation of the pandemic.

Table 35. In-person meetings and personal contact replaced by online video chat

Q21	Frequency	Percent
All	127	54.7%
Almost all	52	22.5%
Half	10	4.1%
Less than half	27	11.7%
None	16	7.0%
Total	**232**	**100.0%**

Medical Visits

A total of 43.1 percent of all respondents indicated that during the Shelter-in-Place order, they had experienced a medical problem that necessitated consulting a doctor (Table 36).

Table 36. Medical problem requiring doctor consultation during Shelter-in-Place order

Q22	Frequency	Percent
Yes	130	43.1%
No	171	56.9%
Total	**301**	**100.0%**

Of those who had such a problem requiring medical attention, 38.7 percent called a doctor or nurse line to discuss it, 24.1 percent went to a doctor's office for care, 11.2 percent went to an emergency room, 9.6 percent had a video consultation with a medical professional, 7.7 percent made an appointment for a future date, and 8.6 percent did nothing about the problem.

Table 37. Action taken in response to medical problem

Q23	Responses		% of Cases
	N	%	
Nothing	13	8.6%	10.3%
Called doctor/nurse line to discuss	59	38.7%	46.3%
Made an appointment for a future date	12	7.7%	9.3%
Saw a doctor by going to medical office	37	24.1%	28.8%
Went to emergency room	17	11.2%	13.5%
Video consultation	15	9.6%	11.6%
Total	**153**	**100.0%**	**119.8%**

Lack of Food or Other Important Items

A total of 8.0 percent of respondents said they had run out of food or other important items during the Shelter-in-Place order (Table 38).

Table 38. Lack of food or important items during Shelter-in-Place order

Q24	Frequency	Percent
Yes	24	8.0%
No	278	92.0%
Total	302	100.0%

Exercise

Respondents were asked to compare their exercise routines before and during the Shelter-in-Place order. While 82.5 percent of survey respondents reported that they exercised outside the home in January 2020, prior to the pandemic outbreak, this percentage had dropped to 63.6 percent by June 2020 as shown in Table 39. This 18.9 percent reduction is significant at p=0.00.

Table 39. Exercise outside of the home, January 2020 versus June 2020

Q25, Q27	January 2020	June 2020
Yes	82.5%	63.6%
No	17.5%	36.4%
Total	100.0%	100.0%

More specifically, over one-third went to the gym in January, yet only 0.5 percent did so in June (Table 40). The percentage of respondents who walked for exercise increased from 74.2 percent before the pandemic to 95.4 percent during. Running and jogging remained relatively stable, from 2.1 percent to 2.6 percent, while those bicycling or engaging in other exercise decreased from 8.2 percent to 6.0 percent for bicycling and from 27.6 percent to 18.0 percent for other exercise.

Table 40. Type of exercise, January 2020 versus June 2020?

Q26, Q28	% Cases January 2020	% Cases June 2020
I went to the gym	33.4%	0.5%
I walked	74.2%	95.4%
I ran or jogged	2.1%	2.6%
I rode a bike	8.2%	6.0%
I did other exercise	27.6%	18.0%
Total	145.5%	122.4%

Entertainment

To gauge social behavior, respondents were asked how many times per week they left their homes before the Shelter-in-Place order to seek entertainment, such as movies, theater plays or music performances (Table 41). A total of 61.4 percent responded that they sought outside entertainment in January 2020. By June 2020, 69.9 percent accessed their entertainment online at home through movies, recorded theater performances, or music broadcasts. The increase of 8.5 percent of seeking entertainment between January and June of 2020 is significant (p=0.00).

Table 41. Leaving home for entertainment, January 2020 versus accessing entertainment online, June 2020 (results based on two separate survey questions)

Q29, Q30	January 2020	June 2020
Yes	61.4%	69.9%
No	38.6%	30.1%
Total	100.0%	100.0%
Mean # times	**1.4**	**1.3**
Minimum # times	**1**	**1**
Maximum # times	**2**	**2**

Work Status

Among respondents, 26.4 percent were working in January 2020 — 12.1 percent full time and 14.3 percent part time — while 73.6 percent were not working (Table 42, the low numbers reflect the high rate — approximately 70 percent in 2018 — of retirement among this cohort).

Table 42. Work status in January of 2020

Q31	Frequency	Percent
Yes, full time (32 hours +/week)	37	12.1%
Yes, part time (less than 32 hours/week)	43	14.3%
No	222	73.6%
Total	**302**	**100.0%**

Of those who were working in January, 67.8 percent reported that their work situation and/or number of hours had changed during the Stay-at-Home order (Table 43).

Table 43. Change in work status/hours

Q32	Frequency	Percent
Yes	54	67.8%
No	26	32.2%
Total	**80**	**100.0%**

Overall, 35.6 percent stated they were working fewer hours, and 22.5 percent reported working more hours during the order. A total of 16.5 percent of workers noted that their travel to work had changed, 6.7 percent retired or stopped working, 12.0 percent began working at home, 3.1 percent changed jobs, and 15.9 percent were laid off or furloughed due to the pandemic (Table 44).

Table 44. Impact on work situation

Q33	Responses		%of Cases
	N	%	
I work more hours	11	20.1%	22.5%
I work fewer hours	17	31.7%	35.6%
I work a different job	1	2.7%	3.1%
I was laid off/furloughed due to COVID-19	7	14.1%	15.9%
The way I get to work has changed	8	14.7%	16.5%
I retired/stopped working	3	6.0%	6.7%
I work from home now	6	10.7%	12.0%
Total	**53**	**100.0%**	**112.3%**

Nearly 78 percent of respondents feared spreading or contracting COVID-19 because of their work or their transportation to work. A total of 14.3 percent worried about contracting the virus either at work or through transportation, while 7.8 percent did not express such fears (Table 45).

Table 45. Worry of spreading or contracting COVID-19 related to employment situation

Q34	Frequency	Percent
I have fear of getting COVID-19 because of work or transportation to work	10	14.3%
Both, I have fear of getting and spreading COVID-19 because of work	56	77.9%
No, I do not have fears about spreading or getting COVID-19 because of work	7	7.8%
Total	**73**	**100.0%**

Social Isolation and COVID-19 Impact

Respondents were asked about their perceived social isolation and whether they felt they had sufficient companionship and social supports (Table 46). A total of 59.5 percent said they never felt a lack of companionship or closeness, 20.1 percent said they felt it rarely, 19.2 percent felt it sometimes or often, and 1.2 percent always felt alone. When asked how often they felt outgoing and friendly or part of a group of friends, 35.6 percent said always, 33.0 percent said often, and 22.8 percent sometimes, while 8.6 percent said they felt part of a group either rarely or never.

Table 46. [A] Frequency of lack companionship [B] Frequency of feeling part of a group

Q35, Q36	[A] Lack of Companionship and closeness	[B] Feel outgoing & part of group
Never	59.5%	3.9%
Rarely	20.1%	4.7%
Sometimes	13.6%	22.8%
Often	5.6%	33.0%
Always	1.2%	35.6%
Total	**100.0%**	**100.0%**

As another gauge of isolation, respondents were asked how many people they had in their life with whom they could discuss matters of personal importance. A total of 53 percent said they had four or more people with whom to discuss such matters, 35.3 percent had two or three people, 8.2 percent had one person, and 3.5 percent felt there was no one with whom they could discuss such matters (Table 47).

Table 47. Number people with whom to discuss matters of personal importance

Q37	Frequency	Percent
One	25	8.2%
Two	44	14.6%
Three	62	20.7%
Four	50	16.8%
Five or more	109	36.2%
None	11	3.5%
Total	**301**	**100.0%**

Economic Situation and COVID-19 Impact

Respondents were asked about the economic impact on them due to the pandemic and the Shelter-in-Place order. A total of 6.6 percent said they were much more or a little more comfortable than before the pandemic, 74.5 percent felt their money situation gave them about the same level of comfort, and 19 percent felt less comfortable than before the Shelter-in-Place order (Table 48).

Table 48. Household financial situation compared with the start of the Shelter-in-Place order

Q38	Frequency	Percent
We are much more comfortable than before the Shelter-in-Place	2	0.6%
We are a little more comfortable than before the Shelter-in-Place	18	6.0%
We have about the same level of comfort	223	74.5%
We are a little less comfortable than before the Shelter-in-Place	44	14.8%
We are much less comfortable than before the Shelter-in-Place	13	4.2%
Total	**299**	**100.0%**

The financial impact of the Shelter-in-Place order on respondents' financial situation is shown in Table 49 and combines the results of a multiple-choice question. Of all respondents, 69.5 percent had experienced no impact and were not worried about their finances, while 24.3 percent were worried about future finances, and 8.0 percent of respondents were worried about current finances.

Table 49. Impact has COVID-19 on household money situation

Q39	Responses		% of Cases
	N	%	
I am worried about my current finances	24	7.1%	8.0%
I am worried about my long-term future finances	73	21.8%	24.3%
I have been unable to pay my rent or mortgage	4	1.3%	1.4%
I have been unable to pay other important bills	5	1.6%	1.7%
I have been using my savings to buy food and/or pay bills	17	5.0%	5.5%
No impact / I am not worried about my finances	208	62.2%	69.5%
Other	4	1.2%	1.3%
Total	**335**	**100.0%**	**111.8%**

View of Government Issued Mobility Restrictions and COVID-19 Impact

When asked about their agreement with the statement "The Shelter-in-Place order is necessary to keep residents healthy and safe," a large majority of respondents (84.5%), strongly agreed or agreed, while 9.7 percent strongly disagreed or disagreed.

When asked about their agreement with the statement "It is time for the Shelter-in-Place restrictions to be lifted completely so that people and businesses can get back to normal life," 62.4 percent of respondents strongly disagreed or disagreed, while 23.2 percent strongly agreed or agreed.

Table 50. Opinion of the Shelter-in-Place order

Q40_1, 2	[A] SIP necessary	[B] SIP lifted
Strongly disagree	4.0%	41.2%
Disagree	5.7%	21.4%
Neither agree nor disagree	5.7%	14.2%
Agree	11.5%	8.5%
Strongly agree	73.0%	14.7%
Total	**100.0%**	**100.0%**

Diagnosis and Fear of Exposure to COVID-19

None of the respondents to the follow-up Senior Mobility Survey were diagnosed with COVID-19, and 88.2 percent were not concerned about any member of their household being exposed to the virus and that they could get infected (Table 51).

Table 51. COVID-19 infection status and concern about exposure from member of household

Q41, Q42	Diagnosed with COVID-19	Become infected by HH member
Yes	0.0%	11.8%
No	100.0%	88.2%
Total	**100.0%**	**100.0%**

Conclusion and Recommendations

Major Findings

Planned as a follow-up survey to the original 2018 senior mobility study, this survey assessed older adults' mobility needs and changes during the pandemic and Shelter-in-Place order, and focused on the impact of COVID-19 on respondents' work status, social isolation, communication, economic situation, views of government regulatory efforts, and health concerns. Senior mobility in Contra Costa County California was affected by the COVID-19 Pandemic in numerous ways as documented by the survey. Following are some of the major findings.

The COVID-19 pandemic and subsequent Shelter-in-Place order had a significant impact on senior mobility and daily activities. The average number of trips for grocery and other shopping were reduced from 3.5 times a week in 2018 to just under twice a week in June 2020, while travel to work (for those respondents who are not retired) was cut by two-thirds.

There was a notable decrease in the number of 2020 respondents who used public transportation in the past year compared with 2018 respondents (58.5% in 2020 vs. 86.8% in 2018).

The pandemic resulted in communications for many respondents being restricted to phone and online conversations with friends and family. Nearly two-thirds said they used email daily, while over one-third used social media daily, and over half texted with others daily. Online video chats were another way that many respondents communicated during the pandemic and Shelter-in-Place order, and over half of those who used online video chat said it had replaced all of their in-person meetings or personal contacts.

Just under half of all respondents indicated that during the Shelter-in-Place order they had experienced a medical problem that necessitated consulting a doctor. Among those, the most common to least common responses were as follows:

- Called a doctor or nurse line to discuss the medical problem
- Went to a doctor's office for care
- Went to an emergency room
- Had a video consultation with a medical professional
- Made an appointment for a future date
- Did nothing about the problem

A total of 8.0 percent of respondents said they had run out of food or other important items during the Shelter-in-Place order.

Exercising outside the home decreased approximately 20 percent among survey respondents between January 2020 and June 2020, and while over one-third went to the gym in January, only 0.5 percent did so in June.

While 61.4 percent of survey respondents said they sought outside entertainment in January 2020, by June 2020, 69.9 percent accessed such entertainment online at home — an almost complete reverse.

Among employed respondents (many of the respondents are retired), 35.6 percent stated that they were working fewer hours, and 22.5 percent were working more hours during the Shelter-in-Place order. Nearly 78 percent of respondents feared spreading or contracting COVID-19 because of their work or their transportation to work.

Respondents were asked about the economic impact on them due to the pandemic and the Shelter-in-Place order, and approximately three-quarters said they felt about the same level of comfort, while almost 20 percent felt less comfortable than before the Shelter-in-Place order.

A total of 84.5 percent of respondents strongly agreed or agreed with the statement "The Shelter-in-Place order is necessary to keep residents healthy and safe."

None of the 2020 survey respondents were diagnosed with COVID-19.

Policy Implications and Future Research

Further follow-up of the survey sample is suggested to assess the long-term future impacts of the COVID-19 pandemic on the survey population, in addition to examining respondents' general travel patterns in more detail by license and driving status, age, health and socioeconomic characteristics. In addition, future efforts should include conducting focus groups with lower socioeconomic populations in Contra Costa County. Additional analyses of the survey data will include examining travel patterns in further detail by license and driving status, age, health and socioeconomic characteristics. Further research using this survey sample could include examining additional land use information for travel and aging in place preferences. Future analysis of the results of the 2020 follow-up survey could serve as the basis for a model that agencies can emulate when planning for an aging population with unique transportation needs and challenges during a pandemic or other crisis.

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Appendix

Senior Mobility Study – Follow-up Survey, May 2020

INTRO

[ASK ALL]

CELL1. For safety reasons, have I reached you on a cell phone?

1. Yes
2. No (SKIP TO INT1)
   99. Prefer not to answer (TERM)

CELL2. Can you safely speak on your cell phone right now?

1. Yes
2. No (SET CB)
   98. Don't know (SET CB)
   99. Prefer not to answer (TERM)

SCREENER

[ASK ONLY IF NEW RESPONDENT – DID NOT COMPLETE BASELINE]

INT1. May I ask you a few questions to see if you qualify?

1. Yes
2. No (set CB)
   98. Don't know (TERM)
   99. Prefer not to answer (TERM)

AGE. To check if you qualify – how old were you on your last birthday?

_____ [NUM – must be 60 or older]

[ASK IF AGE < 60]

AGE_2. Is there anyone in your household age 60 or over?

1. Yes – may I speak to that person? (SET CB if necessary)
2. No (TERM2)
   98. Don't know (TERM)
   99. Prefer not to answer (TERM)

ZIP. Are you currently living in Contra Costa County?

1. Yes
2. No (TERM)
   98. Don't know (TERM)
   99. Prefer not to answer (TERM)

HOUSING/FAMILY SITUATION

Q1. To start, please tell us about where you live. How many years have you lived at your current address?

_____ [NUM – 98. Don't know, 99. Prefer not to answer]

Q2. Do you own or rent your home, or do you have some other type of living arrangement, such as living with a family member or friend?

1. Own
2. Rent
3. Living with family member or friend
   97. Other, specify: _____
   98. Don't know
   99. Prefer not to answer

Q3. Do you live in a retirement community or assisted living facility?

1. Yes
2. No
   97. Other, specify: _____
   98. Don't know
   99. Prefer not to answer

Q4. Besides yourself, do you have any of the following living in your household? (select all that apply)

1. Your partner
2. Child/children under 18
3. Child/children 18 and older
4. Child/children away at school that you support
5. Parents
6. Other adult relatives or friends
   96. No, I live alone
   98. Don't know
   99. Prefer not to answer

CURRENT MOBILITY OPTIONS

Q5. Next, we'd like to know about your current mobility options. Do you have a valid driver's license?

1. Yes
2. No (skip to Q7)
   98. Don't know (skip to Q7)
   99. Prefer not to answer (skip to Q7)

Q6. Do you have access to a motor vehicle to drive yourself places?

1. Yes
2. No
   98. Don't know
   99. Prefer not to answer

Q7. In the past week, how frequently did you go to the following destinations?

    Q7_1. Grocery shopping: ___ [NUM – 98. Don't know, 99. Prefer not to answer]
    Q7_2. Other shopping: ___ [NUM – 98. Don't know, 99. Prefer not to answer]
    Q7_3. Pharmacy: ___ [NUM – 98. Don't know, 99. Prefer not to answer]
    Q7_4. Work: ___ [NUM – 98. Don't know, 99. Prefer not to answer]

Q8. How did you get there?

    Q8_1 [ASK IF Q7_1 > 0] [SELECT ALL THAT APPLY]

1. [IF Q5 = 1] Drive yourself
2. Have others drive you
3. Public transport
4. Walk
5. Bicycle
6. Taxi/cab
7. Ride-share service like Lyft or Uber
8. Use a special transportation service such as one for older adults or persons with disabilities
   97. Other, specify: _____
   98. Don't know
   99. Prefer not to answer

    Q8_2 [ASK IF Q7_2 > 0] [SELECT ALL THAT APPLY]

1. [IF Q5 = 1] Drive yourself
2. Have others drive you
3. Public transport
4. Walk
5. Bicycle
6. Taxi/cab
7. Ride-share service like Lyft or Uber
8. Use a special transportation service such as one for older adults or persons with disabilities
   97. Other, specify: _____
   98. Don't know
   99. Prefer not to answer

    Q8_3 [ASK IF Q7_3 > 0] [SELECT ALL THAT APPLY]

1. [IF Q5 = 1] Drive yourself
2. Have others drive you
3. Public transport
4. Walk

5. Bicycle
6. Taxi/cab
7. Ride-share service like Lyft or Uber
8. Use a special transportation service such as one for older adults or persons with disabilities
    97. Other, specify: _____
    98. Don't know
    99. Prefer not to answer

Q8_4 [ASK IF Q7_4 > 0] [SELECT ALL THAT APPLY]

1. [IF Q5 = 1] Drive yourself
2. Have others drive you
3. Public transport
4. Walk
5. Bicycle
6. Taxi/cab
7. Ride-share service like Lyft or Uber
8. Use a special transportation service such as one for older adults or persons with disabilities
    97. Other, specify: _____
    98. Don't know
    99. Prefer not to answer

Q9. In general, when compared with most people your age, how would you rate your health?

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor
    98. Don't know
    99. Prefer not to answer

Q10. Do you currently use a mobility device, such as a cane, walker or wheelchair to help you get around? Please select all that apply.

1. Yes, cane
2. Yes, walker
3. Yes, wheelchair
4. No mobility device
    98. Don't know
    99. Prefer not to answer

Q11. Does any disability, handicap or chronic disease limit your ability to drive at all?

1. Yes, fully limits driving
2. Yes, somewhat limits driving
3. No
    98. Don't know
    99. Prefer not to answer

Q12. During the past 6 months, have you missed an activity or doctor's appointment, or not gone shopping, because you did not have a way to get there?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

Q13. In the past year, have you used public transportation services available to you in your community such as bus service or BART?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

[ASK IF Q23_BL > 1 OR NEW RESPONDENT]

[ASK only IF Q8 not equal to 8]

Q14. Have you used special transportation services available to you in your community such as non- emergency medical transport/paratransit?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

[ASK IF Q_19_BL > 1 OR NEW RESPONDENT]

[ASK IF Q8 =/= 7]

Q15. Have you ever used a rideshare service such as Lyft or Uber?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

COMMUNICATION OPTIONS

Q16. The next questions are about what communication options you have. Do you have a computer with internet service at home?

1. Yes, with high speed internet
2. Yes, but spotty internet service
3. No
    98. Don't know
    99. Prefer not to answer

Q17. How often do you use email to communicate with and stay connected with family and friends?

1. Every day
2. A couple times a week
3. Once a week
4. A couple times a month
5. About once a month
6. Less than once a month
7. Never
   98. Don't know
   99. Prefer not to answer

Q18. How often do you use social networking (Facebook, Instagram, Twitter) to communicate with and stay connected with family and friends?

1. Every day
2. A couple times a week
3. Once a week
4. A couple times a month
5. About once a month
6. Less than once a month
7. Never
   98. Don't know
   99. Prefer not to answer

Q19. How often do you use text messages to communicate with and stay connected with family and friends?

1. Every day
2. A couple times a week
3. Once a week
4. A couple times a month
5. About once a month
6. Less than once a month
7. Never
8. I don't have a mobile phone
   98. Don't know
   99. Prefer not to answer

Q20. How often do you use online video chat (Zoom, FaceTime, Hangouts) to communicate with and stay connected with family and friends?

1. Every day
2. A couple times a week
3. Once a week
4. A couple times a month
5. About once a month
6. Less than once a month
7. Never (skip to Q22)
   98. Don't know (skip to Q22)

99. Prefer not to answer (skip to Q22)

Q21. How many of those online or video chats replaced in-person meetings or personal contact?

1. All
2. Almost all
3. Half
4. Less than half
5. None
    98. Don't know
    99. Prefer not to answer

Q22. Since the Shelter-in-Place order began, have you had any medical problems for which you felt you should consult a doctor?

1. Yes
2. No (skip to Q24)
    98. Don't know (skip to Q24)
    99. Prefer not to answer (skip to Q24)

Q23. What (if anything) did you do about that medical problem?

1. Nothing
2. Called doctor/nurse line to discuss
3. Made an appointment for a future date
4. Saw a doctor by going to medical office
5. Went to emergency room
6. Video Consultation
    97. Other, specify: _____
    98. Don't know
    99. Prefer not to answer

ACCESS TO RECREATION/ENTERTAINMENT

The next questions are about things that changed since the Shelter-in-Place order

Q24. Have you run out of food or any important items at any time since the Shelter-in-Place order began?
1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

Q25. Think back to the month of January of 2020, did you typically exercise outside of the home?

1. Yes
2. No (skip to Q27)
    98. Don't know (skip to Q27)
    99. Prefer not to answer (skip to Q27)

Q26. What type of exercise did you do?

1. I went to Gym
2. I walked
3. I ran or jogged
4. I rode a bike
5. I did other exercise
    99. Prefer not to answer

Q27. Now think about the PAST WEEK. Did you exercise outside of the home?

1. Yes
2. No (skip to Q29)
    98. Don't know (skip to Q29)
    99. Prefer not to answer (skip to Q29)

Q28. What type of exercise did you do?

1. I went to Gym
2. I walked
3. I ran or jogged
4. I rode a bike
5. I did other exercise
    99. Prefer not to answer

Q29. Thinking back to January of 2020, did you typically leave your home to seek entertainment (movies, theater, music performances, etc.)?

1. Yes, how many times per week:
2. No
    98. Don't know
    99. Prefer not to answer

Q30. Now, thinking about the past week, did you access entertainment online at home (movies, theater, music performances, etc.)?

1. Yes, how many times per week:
2. No
    98. Don't know
    99. Prefer not to answer

WORK

Q31. Now we are going to ask you some questions about working, both before and since the pandemic. In January of 2020, were you working?

1. Yes, full time (32 hours or more per week)
2. Yes, part time (less than 32 hours per week)
3. No (skip to Q35)

98. Don't know (skip to Q35)

99. Prefer not to answer (skip to Q35)

Q32. Has your work situation/number of hours worked changed since the shelter-in-place order?

1. Yes
2. No (skip to Q34)
   98. Don't know (skip to Q34)
   99. Prefer not to answer (skip to Q34)

Q33. How has your work situation changed since the shelter-in-place order? (Select all that apply)

1. I work more hours
2. I work fewer hours
3. I work a different job
4. I was laid off due to COVID-19
5. The way I get to work has changed
6. I retired/stopped working
7. I work from home now
   97. Other, specify: ___
   98. Don't know
   99. Prefer not to answer

Q34. Does your employment situation cause you fear of spreading the virus or getting it from others?

1. I have fear of spreading COVID-19 because of my work
2. I have fear of getting COVID-19 because of work or transportation to work
3. Both, I have fear of getting and spreading COVID-19 because of work
4. No, I do not have fears about spreading or getting COVID-19 because of work
   98. Don't know
   99. Prefer not to answer

ISOLATION

Q35. The next questions are about how you feel. How often do you feel that you lack companionship, there is no one you can turn to, or that you are no longer close to anyone?

1. Never
2. Rarely
3. Sometimes
4. Often
5. Always
   98. Don't know
   99. Prefer not to answer

Q36. How often do you feel outgoing and friendly or that you are part of a group of friends?

1. Never
2. Rarely

3. Sometimes
4. Often
5. Always
    98. Don't know
    99. Prefer not to answer

Q37. How many people do you have in your life with whom you most often discuss matters of personal importance?

1. One
2. Two
3. Three
4. Four
5. Five or more
6. None
    98. Don't know
    99. Prefer not to answer

ECONOMIC IMPACTS

Q38. The next questions are about the financial impacts of COVID-19. How would you describe the money situation in your household right now, compared to the start of the COVID-19 shelter-in-place?

1. We are much more comfortable than before the shelter-in-place
2. We are a little more comfortable than before the shelter-in-place
3. We have about the same level of comfort
4. We are a little less comfortable than before the shelter-in-place
5. We are much less comfortable than before the shelter-in-place
6. 98. Don't know
7. 99. Prefer not to answer

Q39. What impact has COVID-19 had on the money situation in your household? (select all that apply)

1. I am worried about my current finances
2. I am worried about my long-term future finances
3. I have been unable to pay my rent or mortgage
4. I have been unable to pay other important bills
5. I have been using my savings to buy food and/or pay bills
    97. Other, specify:
    96. No impact / I am not worried about my finances
    98. Don't know
    99. Prefer not to answer

VIEW OF GOVERNMENT ISSUED MOBILITY RESTRICTIONS

Q40. The next questions are about the government issued shelter-in-place restrictions. On a scale of 1 to 5, with 1 being 'Strongly disagree' and 5 being 'Strongly agree,' please tell us your level of agreement with the following statements:

Q40_1. The Shelter-in-Place order is necessary to keep residents healthy and safe.

Q40_2. It is time for the Shelter-in-Place restrictions to be lifted completely so that people and businesses can get back to normal life.

COVID CONCERNS

Q41. The next questions are about your experience with COVID-19. Have you been diagnosed with COVID-19 (as verified by a test)?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

Q42. Are you concerned that any member of your household may have been exposed to COVID-19 and even if he/she is not showing symptoms, that you could become infected as a result?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

DEMOGRAPHICS

[ASK IF NEW RESPONDENT]

Q43. We are almost done. To finish, we are just going to ask you a few questions about yourself. These questions are for statistical purposes only. What is your gender identity? Are you…

1. Male
2. Female
3. Other
    98. Don't know
    99. Prefer not to answer

[ASK IF NEW RESPONDENT]

Q44. Are you of Hispanic, Spanish, or Latino origin or descent?

1. Yes
2. No
    98. Don't know
    99. Prefer not to answer

[ASK IF NEW RESPONDENT]

Q45. Which of the following groups best describes your family of origin? (SELECT ALL THAT APPLY)

1. Native American
2. Other Pacific Islander
3. American Indian
4. Alaska Native
5. Asian
6. Black/African American
7. White
   97. Other, specify: ___
   98. Don't know
   99. Prefer not to answer

Q46. What is your current marital status?

1. Married
2. Not married, living with partner
3. Separated
4. Divorced
5. Widowed
6. Never married
   98. Don't know
   99. Prefer not to answer

[ASK IF NEW RESPONDENT]

Q47. What is the highest grade of education you have completed and received credit for?

1. Grades 1-8
2. Grades 9-11
3. Grade 12 (high school)
4. Some college
5. Vocational school
6. AA/AS degree (Associate degree)
7. BA/BS degree (Bachelors' degree)
8. Some graduate school
9. MA/MS degree (Masters' degree)
10. PhD, MD, JD, DO or equivalent
    96. No formal education
    98. Don't know
    99. Prefer not to answer

Q48. Please read the following range of household incomes. We do not want to know your exact income. We want to know which of the following groups your total household income came closest to last year. Was it…

1. Less than $10,000
2. $10,001 to $15,000
3. $15,001 to $20,000
4. $20,001 to $30,000
5. $30,001 to $40,000
6. $40,001 to $50,000

7. $50,001 to $60,000
8. $60,001 to $70,000
9. $70,001 to $80,000
10. $80,001 to $90,000
11. $90,001 to $100,000
12. $100,001 to $135,000
13. Greater than $135,000
    98. Don't know
    99. Prefer not to answer

Q49. Finally, to help us better understand the environment you live in, please enter your zip code.

[NUM – 99. Prefer not to answer]