



Changes in consumer preferences for seafood products due to the COVID-19 pandemic: Summary of Northern Virginia (NOVA) results

Authored by Charles Clark, Research Specialist Virginia Seafood AREC, Virginia Tech; Jonathan van Senten, Assistant Professor and Extension Specialist Virginia Seafood AREC, Department of Agricultural and Applied Economics, Center for Coastal Studies Affiliate Faculty, Virginia Tech; Michael Ciaramella, Seafood Safety and Technology Specialist New York Sea Grant, Cornell Cooperative Extension; Matt Parker, Aquaculture Business Specialist Maryland Sea Grant Extension, University of Maryland.

Summary

The health crisis created by the COVID-19 pandemic led to the shutdown of restaurants and nonessential businesses throughout the United States. With the majority (68%) of seafood products purchased at food service establishments, this has resulted in an unparalleled shock to U.S. fisheries and aquaculture producers (NOAA 2018). Furthermore, the USDA Census of Aquaculture reported that for shellfish farms only 4% of their first point of sales were direct to consumers (USDA 2019). As farms and businesses attempt to respond to the loss of revenue from traditional marketing channels and establish direct to consumer channels, a key question concerned the extent of changes in consumer demand and preferences for seafood products. Thus, the goal of this project was to gather market information on changes in how, when, and where consumers purchase seafood in response to the COVID-19 pandemic.

This report summarizes the results of information specific to responses related to seafood purchases at households within the Northern region of Virginia. Survey respondents were asked about seafood purchases prior to (2019) and during (2020) the COVID-19 pandemic.

There were 375 usable responses from participants living within the Northern region of Virginia. Respondent location was self-reported via zip code. The greatest percentage of respondents (43%) had completed high school (Figure 1). This was followed by 21% who completed some college, 14% who completed 2-year Associates/Trade/Technical/Vocational Training, 10% who completed a 4-year college degree, 8% who completed an advanced college degree (graduate degree), and 4% who completed some high school. The majority of respondents (97%) self-reported as “White”, with 2% who self-reported as “Hispanic”, and 1% who self-reported as “Black or African American”. Forty-eight percent of respondents reported being female, followed by 43% who reported being male, and 10% reporting Other. Twenty-five percent of participants reported being 66 years old or older, followed by 23% being 46 to 55 years old, 20% being 56 to 65 years old, 18% being 36 to 45 years old, and 13 being 35 years old or younger. Figure 2 illustrates the proportion of respondents by income prior to and during the pandemic. The greatest percentage of respondents had annual household incomes of \$100,000 to \$149,999 (29% in both 2019 and 2020).

When asked about frequency of seafood consumption during the pandemic (2020), the largest percentages of respondents (54%) indicated they ate about the same as they did in 2019 (Figure 3). This



was followed by 39% who indicated they ate seafood less frequently in 2020, and 7% who indicated they ate seafood more frequently in 2020.

Between 2019 and 2020, consumers reported increased consumption of seafood products prepared at home and delivered to home as a prepared meal (Table 1). Conversely, consumers reported decreased consumption of seafood products as takeout from restaurants and at restaurants. The percentage of respondents who did not consume seafood products increased between 2019 and 2020.

Regarding method of preparation, respondents indicated they preferred fried finfish products, fried mollusk products, fried crustacean products, and grilled seaweed products when purchasing as takeout from a restaurant or delivered to home as a prepared meal in 2019 (Figure 4). Grilled seaweed products were still preferred in 2020, however respondents indicated they preferred grilled finfish products, raw mollusk products, and raw crustacean products when purchasing as takeout or delivery in 2020 (Figure 5). When asked about preferences regarding seafood purchased at a restaurant, respondents in 2019 indicated they preferred grilled finfish products, fried mollusk products, broiled crustacean products, and raw seaweed products (Figure 6). Grilled finfish products and broiled crustacean products were still preferred in 2020, however respondents indicated they preferred broiled mollusk products and broiled seaweed products when purchasing at a restaurant in 2020 (Figure 7).

Survey participants were asked about the amount spent per shopping trip on seafood products for home preparation in 2019 and 2020 (Figure 8). The majority of respondents in both 2019 and 2020 (77% each year) indicated they purchased less than \$30 worth of seafood products per shopping trip. Similarly, survey participants were asked about the quantity (in pounds) purchased per shopping trip or home preparation (Figure 9). The majority of participants in both 2019 (88%) and 2020 (86%) indicated they purchased 10 pounds or less of seafood products per shopping trip.

In 2019, prior to the COVID-19 pandemic, 48% of respondents indicated they ate more seafood during a particular season of the year (Figure 10). In 2020, during the pandemic, 38% indicated they ate more seafood during a particular season, indicating a shift away from seasonal consumption.

Regarding advertisement methods, In-store cards/tabletops, word of mouth, and seafood counter clerk or waitstaff were found to be the most important methods of advertisement, as the greatest percentages of participants indicated these to be very important methods (Table 2). Greater percentages of respondents found all other methods (mailed flyer, E-mail, text message, social media posting, etc.) to be not important at all.

Respondents were asked to identify establishments from which they purchased seafood products for home preparation in 2019 and 2020 (Figures 11 & 12). Sixty-eight percent of respondents in 2019 and 65% in 2020 indicated they purchased more than 50% of seafood products for home preparation at supermarkets or grocery stores. This was followed by 18% in 2019 and 23% in 2020 that purchased less than 10% of seafood products for home preparation at supermarkets or grocery stores. Fourteen percent of respondents in 2019 and 12% in 2020 indicated they purchased between 11% and 50% of seafood products for home preparation at supermarkets or grocery stores. Purchases from all other establishments were uncommon in 2019 and 2020, with 84% or more of respondents in 2019 and 86% or more of respondents in 2020 indicating 10% or less of seafood purchases being made at all other establishments (seafood market, farmer's market, food hub, online seafood distributor or producer, etc.). Overall, supermarkets or grocery stores were the most common establishment from which to purchase of seafood products for home consumption in 2019 and 2020. Regarding preferred establishments from which purchase seafood products for home preparation, minimal change was observed between 2019 and 2020 (pre-pandemic vs. pandemic).



References

National Marine Fisheries Service. 2018. Fisheries of the United States, 2017. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2017 Available at:
<https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2017-report>

United States Department of Agriculture. 2019. 2018 Census of Aquaculture. Volume 3. Special Studies. Part 2. AC-17-SS-2. Available at:
https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/Aquaculture/Aqua.pdf

Visit Virginia Cooperative Extension: ext.vt.edu

Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.

Appendix

Changes in consumer preferences for seafood products due to the COVID-19 pandemic: Summary of Northern Virginia (NOVA) results

Charles Clark, Virginia Tech

Jonathan van Senten, Virginia Tech

Michael Ciaramella, Cornell Cooperative Extension

Matt Parker, Maryland Sea Grant Extension



Figure 1. Level of education completed by survey respondents..... 3

Figure 2. Household income of survey respondents in 2019 and 2020 4

Figure 3. Frequency of seafood consumption of seafood products in 2020, with respect to seafood consumption in 2019 4

Table 1. Methods of consumption of seafood products reported in 2019 and 2020 5

Figure 4. Preferred method of preparation of seafood products purchased as takeout from a restaurant or delivered to home as a prepared meal reported in 2019..... 5

Figure 5. Preferred method of preparation of seafood products purchased as takeout from a restaurant or delivered to home as a prepared meal reported in 2020..... 6

Figure 6. Preferred method of preparation of seafood products purchased at a restaurant reported in 2019 7

Figure 7. Preferred method of preparation of seafood products purchased at a restaurant reported in 2020 8

Figure 8. Amounts spent per shopping trip on seafood products for home preparation reported in 2019 and 2020..... 9

Figure 9. Quantities of seafood products purchased per shopping trip for home preparation reported in 2019 and 2020..... 9

Figure 10. Percentage of respondents who consumed more seafood during a particular season in 2019, prior to the pandemic, and 2020, during the pandemic 10

Table 2. Ranked importance of options to receive advertising information about seafood, according to survey responses in 2020..... 11

Figure 11. Percent of seafood products purchased at varying establishments in 2019.....**Error! Bookmark not defined.**

Figure 12. Percent of seafood products purchased at varying establishments in 2020.....**Error! Bookmark not defined.**



Virginia Cooperative Extension

Virginia Tech • Virginia State University

www.ext.vt.edu

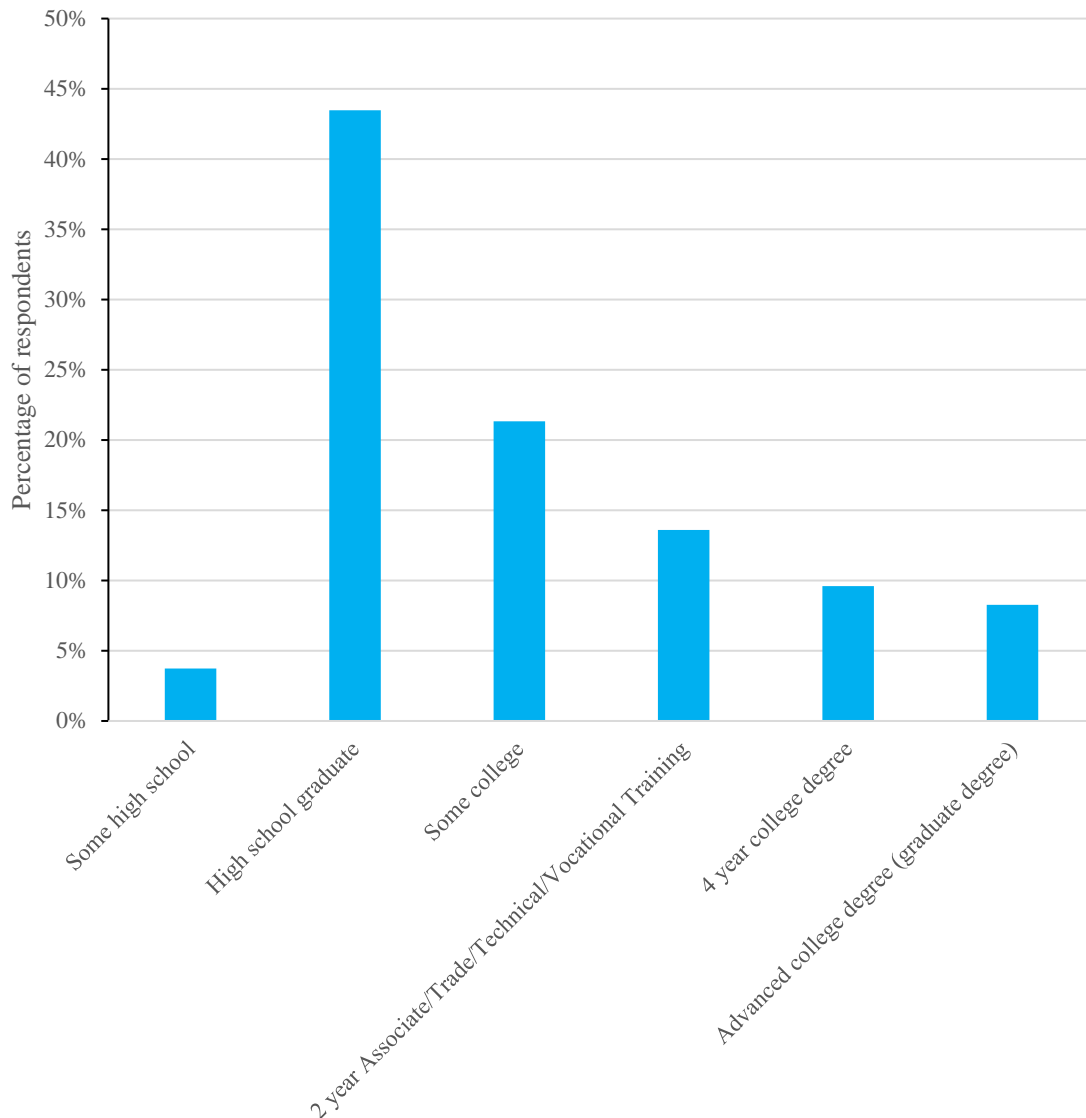


Figure 1. Level of education completed by survey respondents.

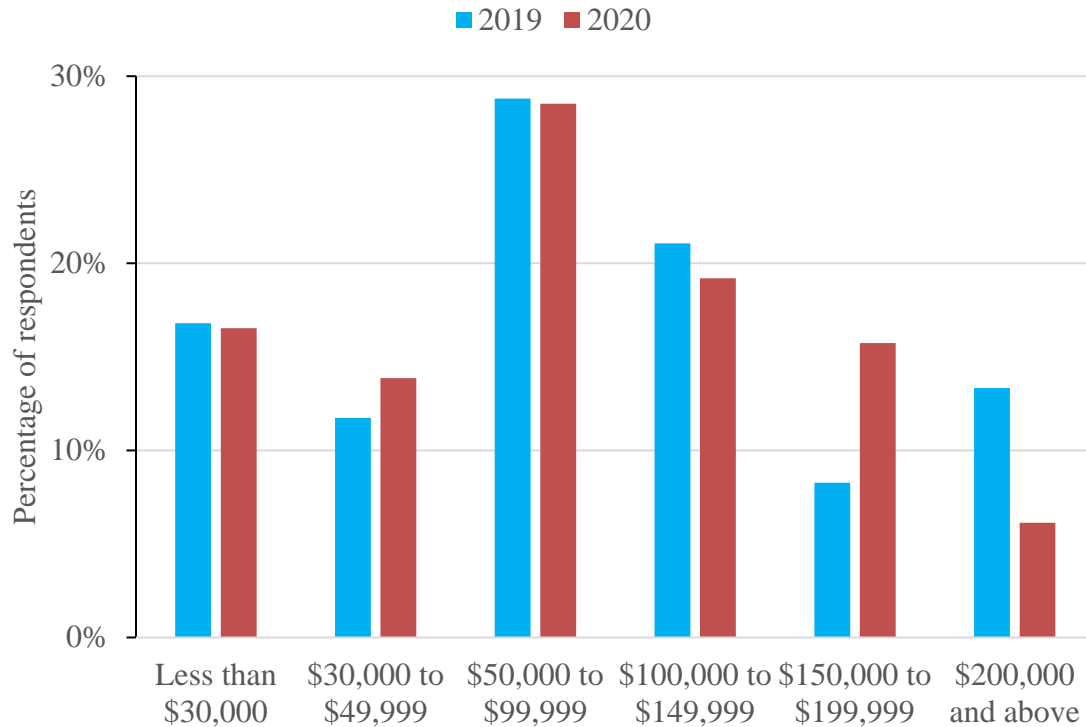


Figure 2. Household income of survey respondents in 2019 and 2020.

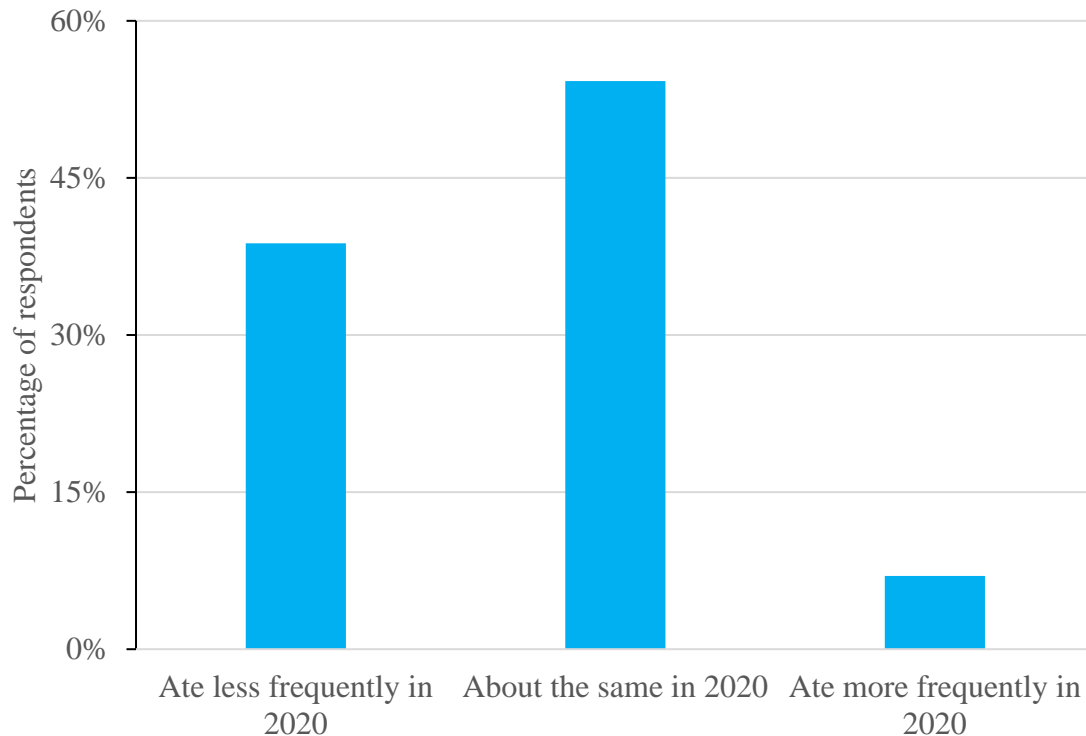


Figure 3. Frequency of seafood consumption of seafood products in 2020, with respect to seafood consumption in 2019.



Table 1. Methods of consumption of seafood products reported in 2019 and 2020.

Methods of consumption	2019	2020
Prepared at home	35%	38%
Takeout from a restaurant	16%	14%
Delivered to home as a prepared meal	4%	7%
At a restaurant	22%	11%
Other	0%	1%
Did not consume	22%	29%

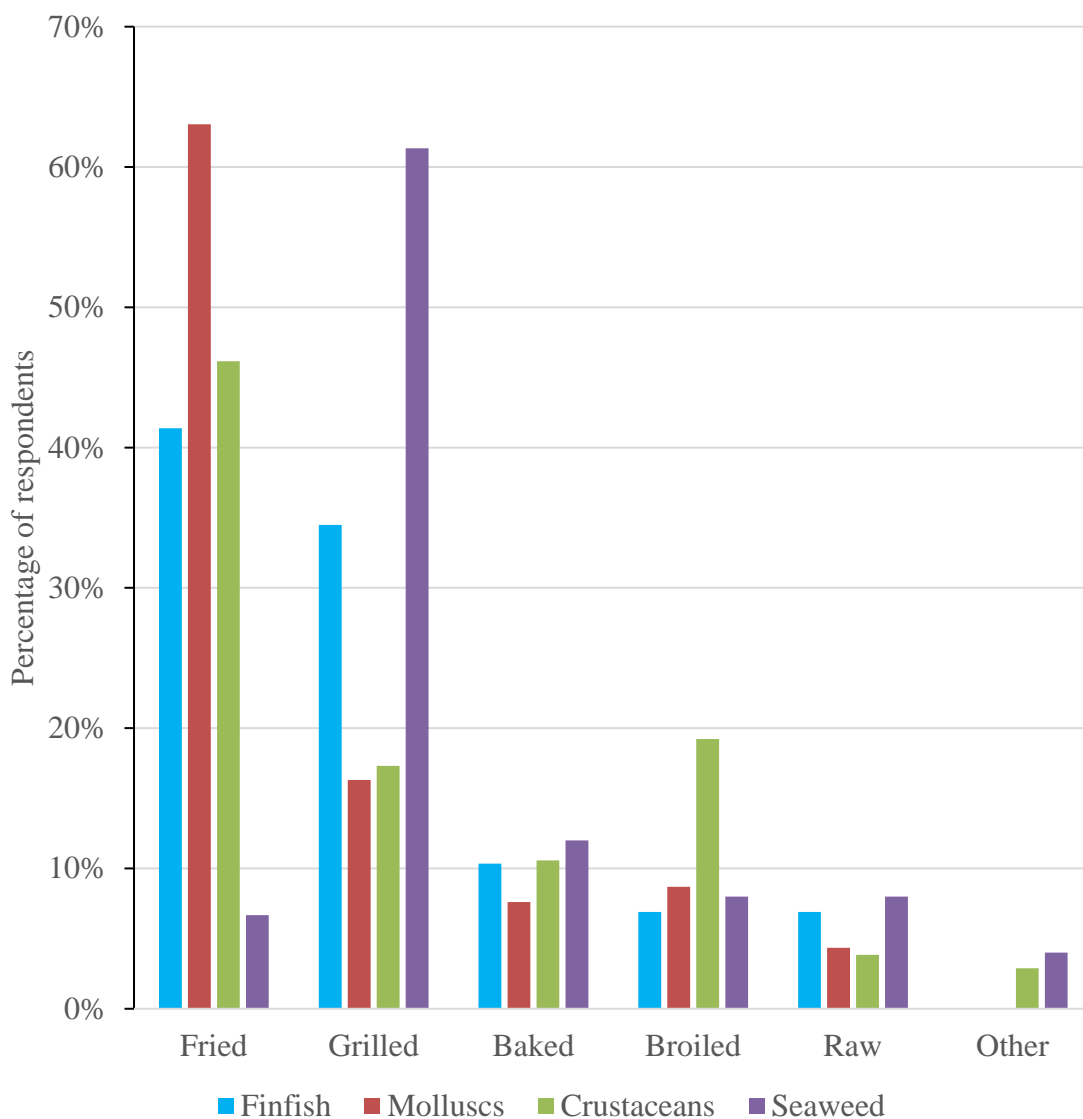


Figure 4. Preferred method of preparation of seafood products purchased as takeout from a restaurant or delivered to home as a prepared meal reported in 2019.

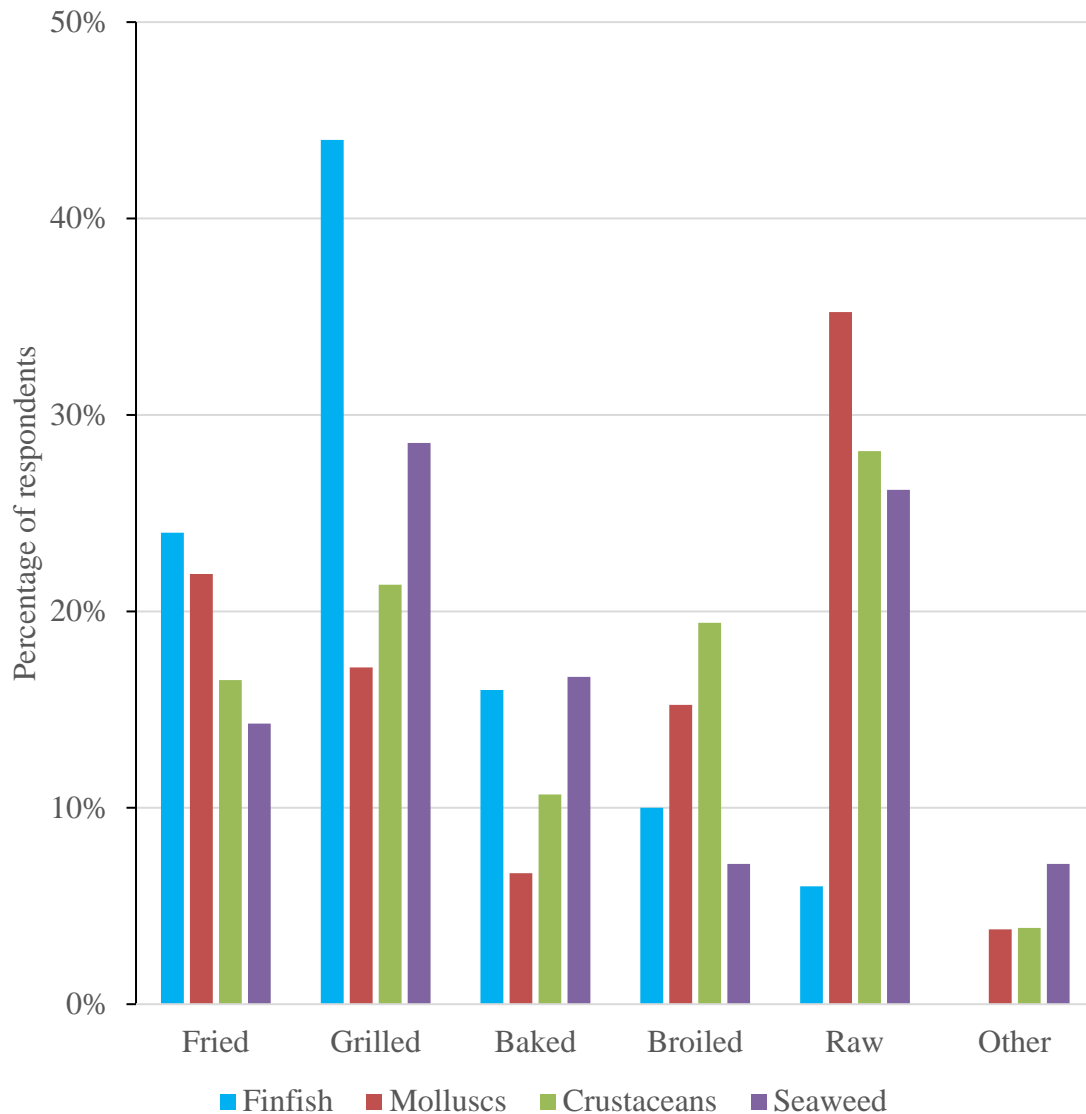


Figure 5. Preferred method of preparation of seafood products purchased as takeout from a restaurant or delivered to home as a prepared meal reported in 2020.

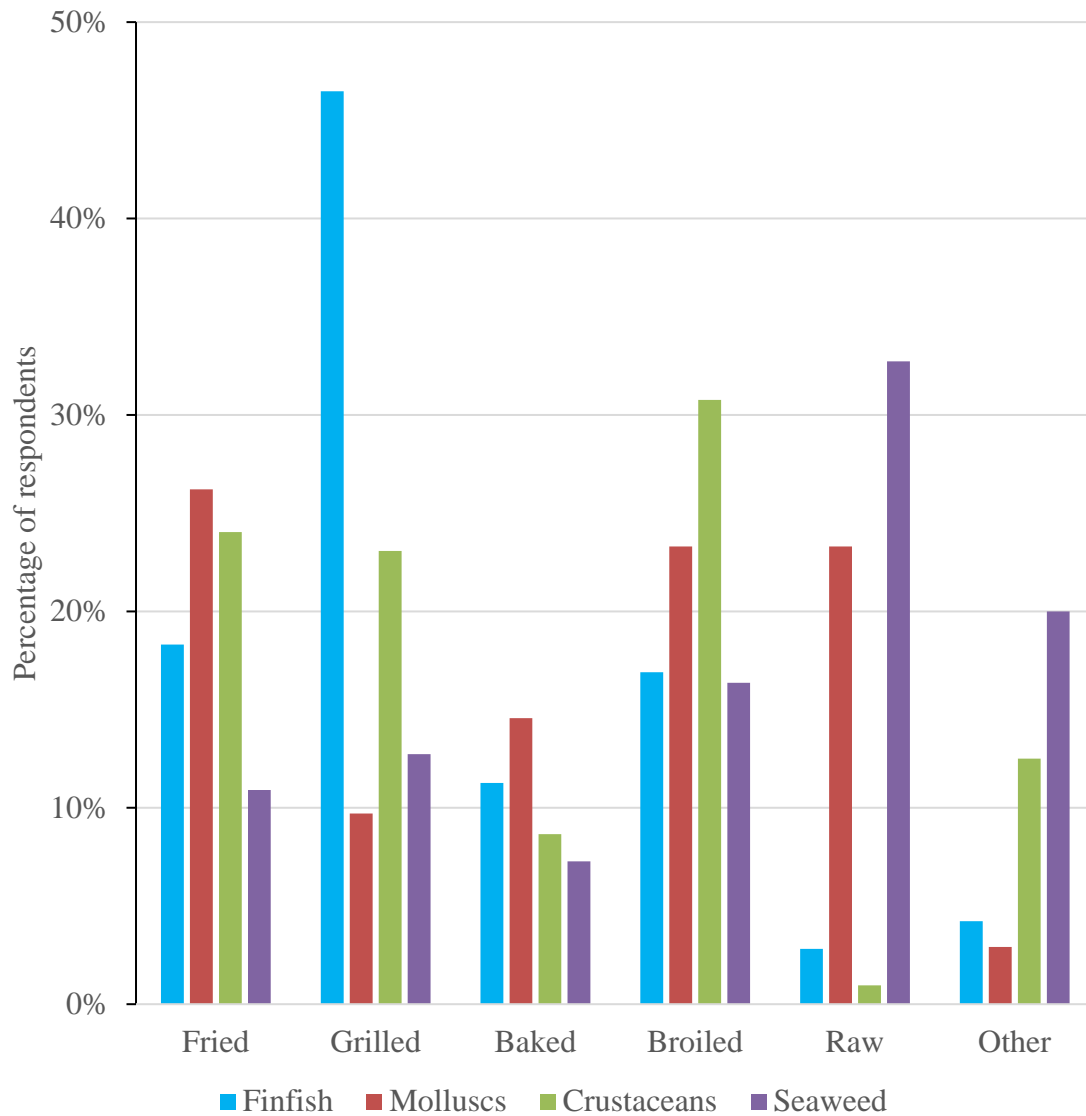


Figure 6. Preferred method of preparation of seafood products purchased at a restaurant reported in 2019.

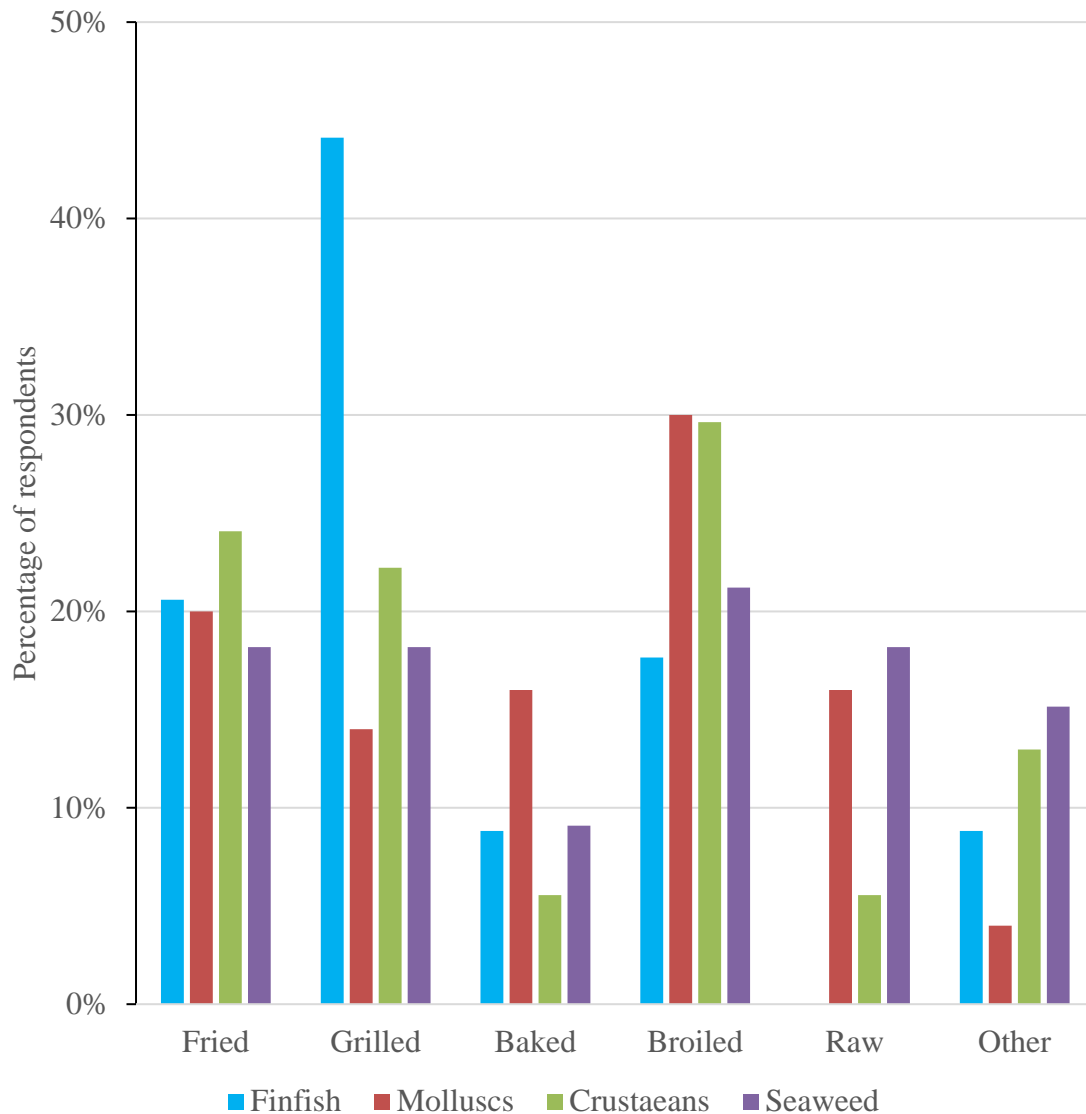


Figure 7. Preferred method of preparation of seafood products purchased at a restaurant reported in 2020.

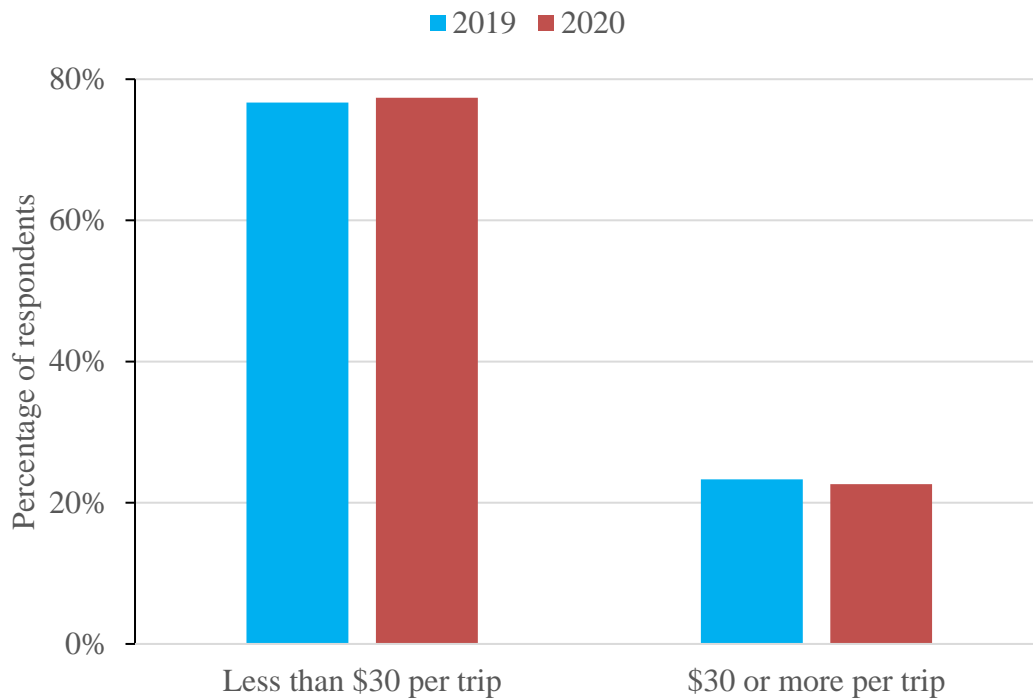


Figure 8. Amounts spent per shopping trip on seafood products for home preparation reported in 2019 and 2020.

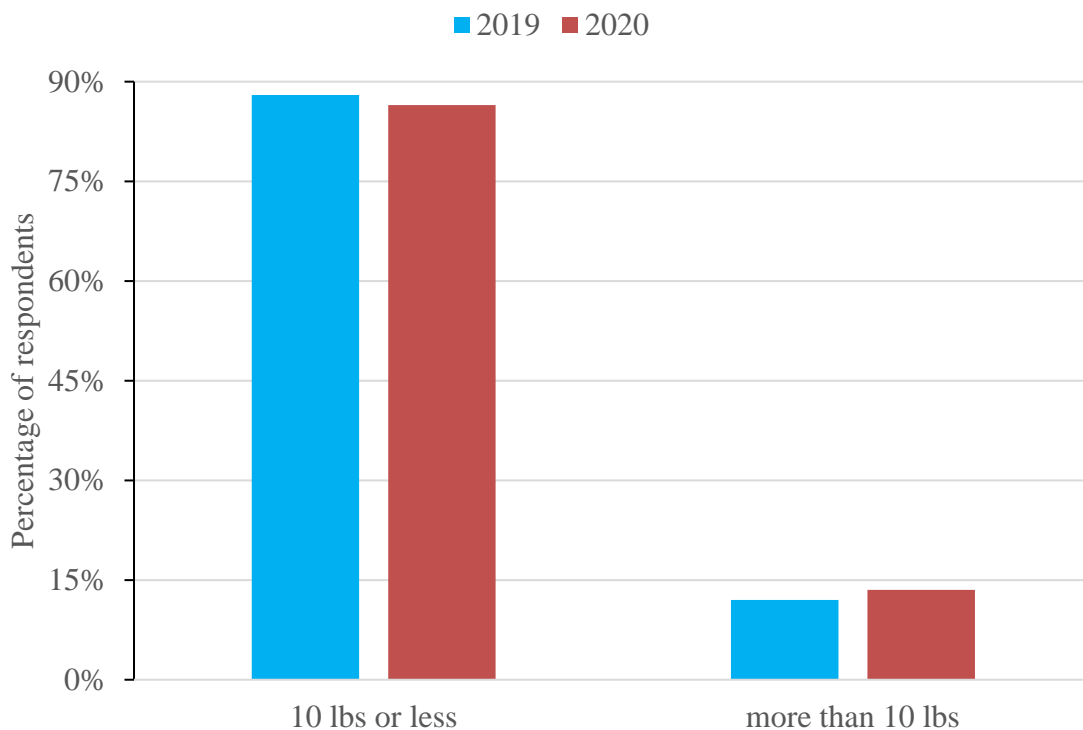


Figure 9. Quantities of seafood products purchased per shopping trip for home preparation reported in 2019 and 2020.

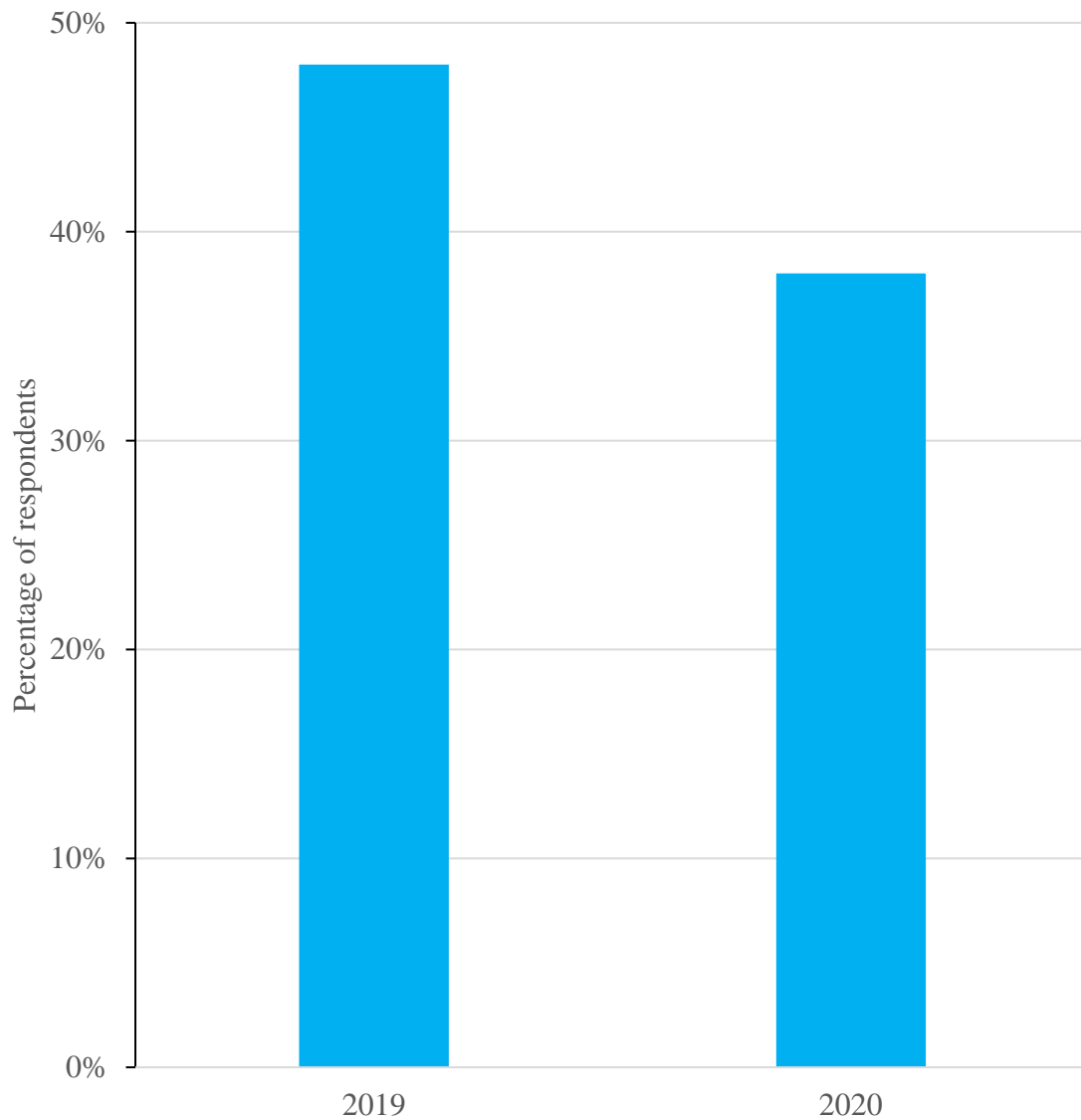


Figure 10. Percentage of respondents who consumed more seafood during a particular season in 2019, prior to the pandemic, and 2020, during the pandemic.



Table 2. Ranked importance of options to receive advertising information about seafood, according to survey responses in 2020 (* indicates greatest percentage).

	1 (not important at all)	2 (slightly important)	3 (moderately important)	4 (very important)	5 (extremely important)
Mailed flyer	35%*	15%	21%	19%	9%
E-mail	33%*	18%	28%	14%	7%
Text message	45%*	14%	25%	7%	9%
Facebook posting	45%*	11%	18%	18%	8%
Twitter posting	57%*	9%	10%	16%	8%
In-store cards, table tops	22%	19%	22%	27%*	10%
In-store notifications, text	37%*	13%	21%	23%	7%
QR code	46%*	12%	17%	18%	8%
Word of mouth	17%	11%	22%	32%*	18%
Seafood counter clerk or waitstaff	14%	12%	25%	33%*	17%
Other	53%*	6%	23%	8%	10%

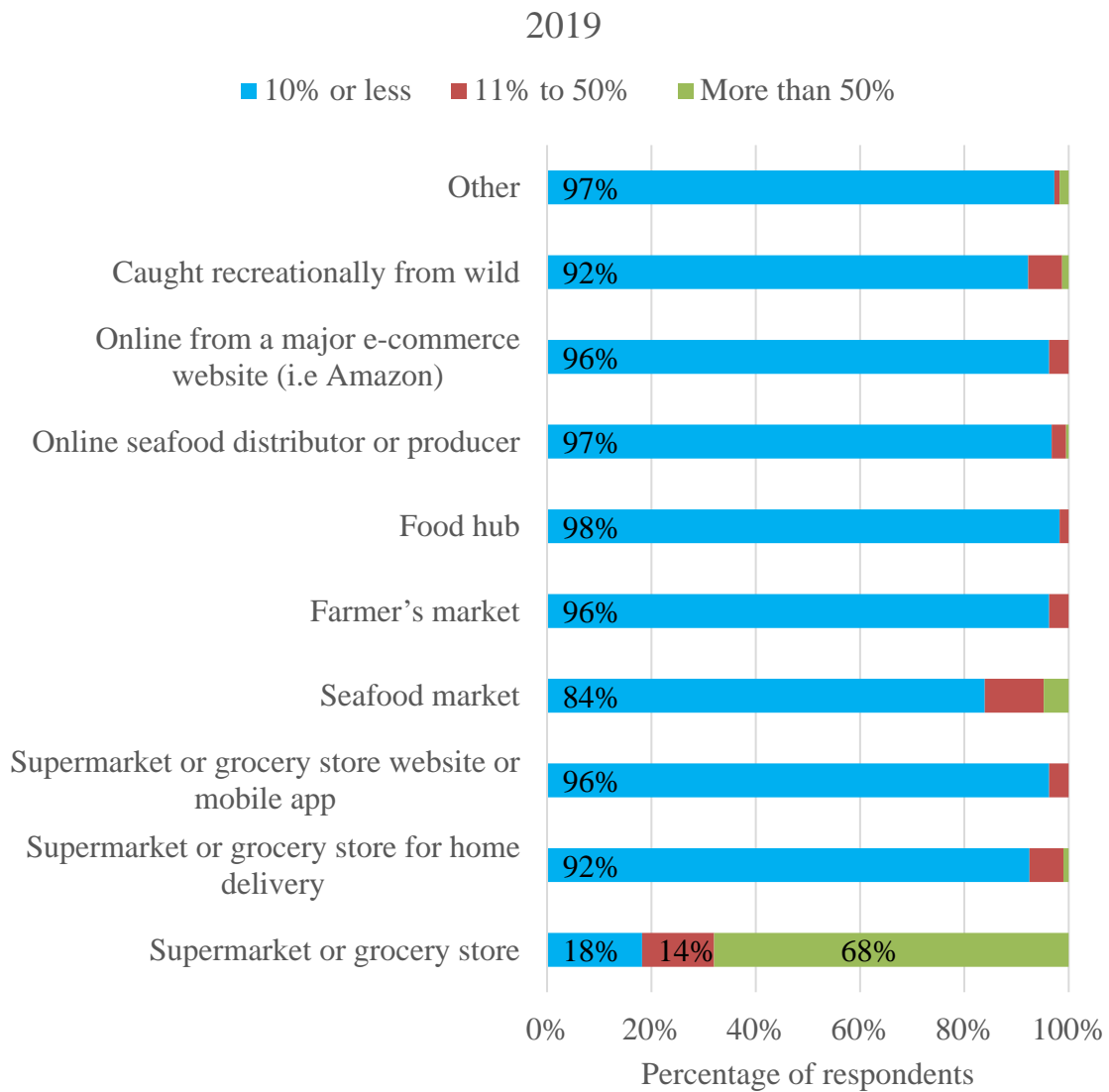


Figure 11. Percentage of seafood products purchased at varying establishments in 2019.

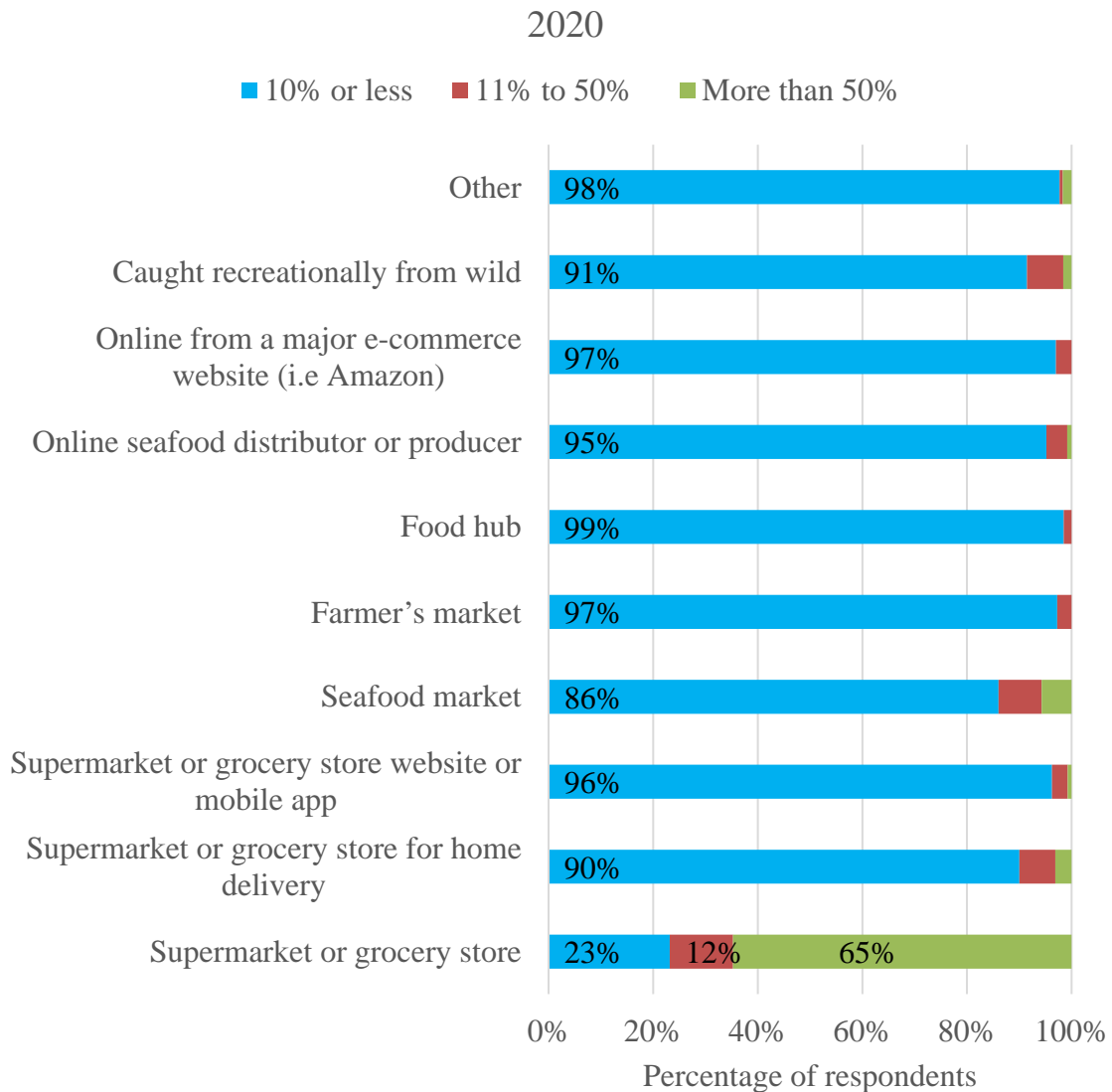


Figure 12. Percentage of seafood products purchased at varying establishments in 2020.