The COVID-19 pandemic and associated public health and social distancing mandates caused unprecedented shifts and disruptions for local and regional food systems (LRFS). Impacts on farm enterprises, value chain stakeholders, market channels, and food system infrastructure were both vast and varied, but many food enterprises, including local and regional markets, were well-positioned to increase the scope and scale of their market reach as a result of their ability to rapidly adapt and innovate. One interesting implication of the pandemic on food markets is that it appears to have accelerated the move to online sales that some food markets were already positioning themselves to capture. Weintraub (2022) reported 2021 online sales would surpass $100 billion in the U.S., trending upward to 15% of sales in 2022. Beyond the big food retail players, a broader set of marketing channels are seeking to fill unique niches through subscription models, memberships and targeting loyal local customers and the word of mouth they might share with their peers. But physical storefronts are still relevant as up to 75% of online orders are fulfilled from stores via pickup services (Weintraub, 2022).

The sudden onset of COVID-19 prompted the U.S. Department of Agriculture, Agricultural Marketing Service (USDA AMS) to convene a team of academics and food sector organizations to quickly identify market disruptions affecting the LRFS sector, provide real-time analysis, and technical assistance. One of the key pieces of research requested by that community was a national survey to understand consumer choices, and given the length of the pandemic’s impacts, surveys were conducted in 2020 and 2021 to understand the changing food landscape (more on the project and team can be found at: https://lfscovid.localfoodeconomics.com/).

Exploring the Role of Online Sales in Food Market Disruptions

In an initial and quick assessment of online local foods sales between April and May 2020, Thilmany et al. (2020) found online sales by local and regional food businesses with e-commerce options increased by 360% due both to increases in the number of orders (+189%) and dollars spent per order (+71%). These early research findings, together with feedback from focus groups conducted as part of the USDA project, quickly highlighted online sales as one of the largest and most changes in consumer behavior, and in response, immediate pivot strategies that food markets were implementing to respond to COVID.

In a 2020 survey, we first documented the move to online sales by US consumers between September 2019 and 2020 (https://lfscovid.localfoodeconomics.com/wp-content/uploads/2021/04/LFS-CFI-04-UPDATED-.pdf). In 2020, consumers were asked if they purchased any food online. The share who shopped online increased from 32.8% (in Sept. 2019) to 48.5% (in Sept. 2020), and growth varied across
market channels and among households. The highest growth rates in usage were older households (55 and above) and those who were concerned about COVID health implications for their household.

In this report, we focus on a follow-up 2021 survey, where we found online shopping for food continued to increase from 2020 to 2021, across almost all food market channels. For the 2021 survey, a more nuanced approach was used to capture these trends, as we realized that consumers used online services quite differently depending on whether the purchase would be delivered to their home, or instead, being purchased online and compiled, but picked up by the consumer curbside at the venue. So, the online question was asked about each marketing channel, including specifics on whether they used delivery vs. curbside options. When asked in this way, almost 50% of households reported using online purchases during 2021 (similar to 2020) for food purchased to consume at home (through stores or restaurants).

**Figure 1. Households Using Online Food Market Purchases for Select Channels, 2020 and 2021**

<table>
<thead>
<tr>
<th>% of Households using Online Platforms for Food Purchases</th>
<th>2020 Online</th>
<th>2021 Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>SuperCenter</td>
<td>26%</td>
<td>19%</td>
</tr>
<tr>
<td>Supermarket</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Small/Indep. Retailer</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Farmers Market</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Direct from Producer (CSA, farmstand)</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Food Box</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>Meal Kit</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Artisan Food (butcher, baker, cheese)</td>
<td>19%</td>
<td>15%</td>
</tr>
<tr>
<td>National Restaurant</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Local/Indep. Restaurant</td>
<td>19%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Figure 1 reports the share of households that used online platforms to purchase their food in all reported channels during 2020 and 2021, using both delivery and curbside options. It is interesting to note that curbside pickup is generally the more popular option, perhaps due to lower costs (if delivery and shipping is not free) or the interest in freshness from direct pickup (i.e. fresh bakery or hot meals from restaurants).

The distinction between delivery and curbside pickup is important for two reasons:

1) It may suggest a difference in whether the consumer seeks the time-saving convenience and be concerned about entering the store (curbside) rather than simply wanting the convenience and saved travel from receiving a delivery at home; and

2) It has different operational requirements for the market providing that option.

Certain market channels experienced a higher rate of online purchasing from their shoppers than others and increased usage between 2020 and 2021. Overall, consumers reported steady or increased use of online platforms across these two years, and at least 5% of households chose an online option for each channel (with up to over 25% of households doing some curbside pickups from Supercenters). Where
there were significant increases in usage between 2020 and 2021, the share of households using those options are shared in Figure 1.

**Perceived COVID-19 Risk and Online Shopping Behavior**

**Figure 2. Household concerns about COVID health complications**

![Image](image.png)

*Note: In addition to those worried if members of their household were vulnerable to COVID complications (figure 2), one-third of the sample had at least one person who contracted COVID (confirmed by test (25%) or suspected without testing (8%)) as the time of the survey (late 2021). But these households were not explored independently.*

A potential factor influencing consumers' online purchasing behavior is their household’s perceived risk of illness due to COVID-19. Just as we did in 2020, we asked respondents “Are you, someone you live with, or someone you in close physical contact with, at high risk for developing complications related to COVID-19?” as one way to capture their perceived COVID-19 risk. Overall, 34% of surveyed consumers responded “Yes,” 54% responded “No,” and 12% responded “I don’t know” or “Prefer not to answer.” These were similar shares to what was reported for the 2020 survey.

In terms of how such COVID health concerns influence online shopping behavior, Figure 3 shows the percent of survey respondents using online shopping in each category of response to the aforementioned question related to perceived COVID-19 risk.

**Figure 3: Household Online Food Purchases, Segmented by COVID health complications concerns**
Overall, the respondents with greater perceived COVID health concerns (reported separately below with the COVID label) tended to shop online at higher rates. One of the more in-depth considerations we can explore in this 2021 survey is how online usage is divided between those who may solely want the convenience of online purchases and delivery relative to those still willing to drive to the store, but who may be using online as a way to avoid the traffic and potential exposure within stores. Not surprisingly, those with COVID concerns not only use online options more commonly (for example 15% of those concerned about COVID have local restaurants deliver compared to 11% in the full sample), and those concerned about COVID appear to have even greater interest in curbside pickup options.

**Implications for Markets and Communities**
Online food purchasing was a trend that was being tracked for years before the start of the pandemic, but most agree that COVID accelerated the trial and adoption of online purchasing, and this fact sheet shares what we have learned about those trends. In particular, the findings of how use varied among those concerned about COVID are important for two reasons to those operating in local and regional food markets.

- First, curbside pickup of online purchases may be a preferred option for those selling in markets where perishability and freshness are valued. Plus, developing a full delivery system rather than a pickup site may require more capital outlays.
- Second, those purchasing curbside may be more “temporary” adopters of online purchasing in the long-run. Their willingness to drive to the market suggests they are less driven by convenience, and more trying to do their part of lessen COVID exposure and spread within their household in the short term. So, perhaps a market should not plan on that full set of online purchases to continue purchasing in that way.

Perhaps most surprising to some is that online sales may “level the playing field,” and offer better market access to small and mid-sized, local and/or niche food enterprises that can more easily build a web platform and pickup/delivery system than get shelf space in a large retailer or operate their own brick-and-mortar storefront. However, communities and technical assistance partners should realize new business models focused on online sales will require new support...
systems for the enterprises they support (broadband, onboarding to new online platforms, shared distribution projects).

References:


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