

DATA RELEASE

Consumer Spending | April 27, 2020

DATA RELEASE: COVID-19 Pandemic Effects on Silicon Valley Spending

JOINT VENTURE'S INSTITUTE FOR REGIONAL STUDIES RELEASES ANALYSIS ON CONSUMER SPENDING TRENDS

Consumers stock up, change what they buy, yet overall spending is down

April 27, 2020 – Joint Venture Silicon Valley's Institute for Regional Studies has released an analysis of the region's consumer spending trends and how they have changed during the COVID-19 pandemic, using data from Earnest Research. The Institute also compared this granular data to the U.S. Census Bureau's *Advance Monthly Sales for Retail Trade and Food Services Report* for March 2020 which was released on April 15, including retail sales trends for the U.S. overall and changes between February and March.

Earnest Research is a leading data analytics company. Their consumer spending data is derived from a panel of nearly six million U.S. consumers, normalized by the Earnest Consistent Shopper Methodology.¹ The Earnest Research COVID-19 Tracker has generously been made available to nonprofit organizations and government agencies across the country.

The "most recent data" refers to the week ending on April 15, 2020.

The Institute's Analysis of the Earnest Research COVID-19 Tracker data showed that prior to the shelter-in-place order, Silicon Valley consumers stocked up on supplies (primarily from in-store retailers), purchases shifted from in-store to online, and consumers have changed the types of things that they're buying. Overall consumer spending is down compared to the same time last year, and the decline is more pronounced in Silicon Valley than in California or the nation as a whole.

"We know that people stocked up prior to the shelter-in-place order, since lots of store shelves remain bare, missing essential items like flour, pasta, rice, toilet paper, diapers and wipes, and disinfectants of all kinds," said Rachel Massaro, the Institute's Director of Research. "While it's not surprising that purchasing has since shifted to more online orders, it's interesting to note the differences between Silicon Valley, statewide, and national spending trends amid the crisis."

Massaro went on to note that, "Online purchases represent a larger share of Silicon Valley consumer spending compared to the state and nation, and the peak in-store purchases occurred a week sooner here due to our early shelter-in-place orders."

If the shifts in consumer spending exhibited in the Earnest Research data and/or the national Census data trends persist post-pandemic, Silicon Valley could lose as many as 8,560 to 12,150 jobs across retail, accommodation, and food services – a segment which currently comprises 16% of the region's total employment.²

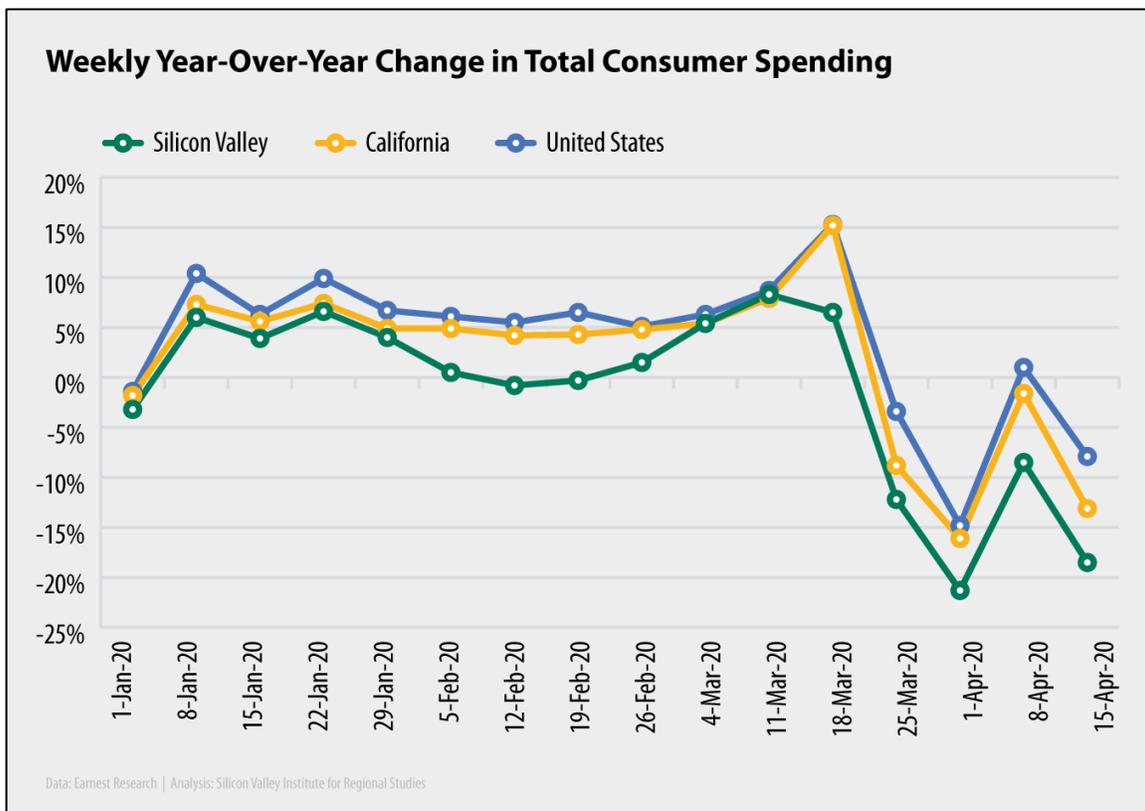
Key Findings:

1. Consumers stocked-up prior to the shelter-in-place order

The pre-shelter-in-place spike in consumer spending was more pronounced in California and the U.S. overall (15% higher than the same week in 2019, for both) than it was in Silicon Valley (+9% YoY). The Silicon Valley peak was also one week ahead of the state and nationwide peak (week ending on March 11, compared to the week ending March 18), likely due to the region's early shelter-in-place orders.

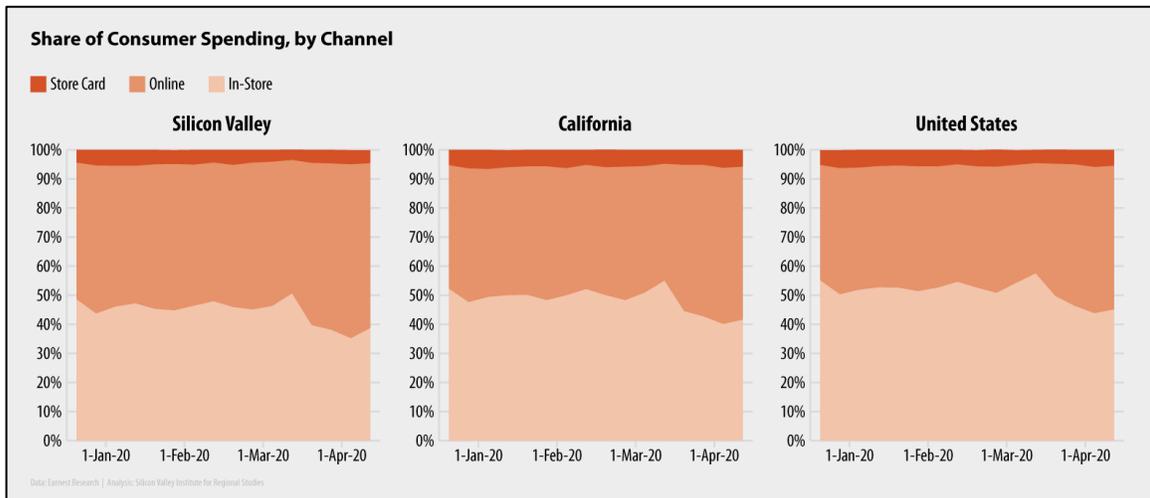
The share of consumer spending in Grocery, General Merchandise, and Hobbies and Toys occurred but has since come back down, while Specialty Food and Beverage Sales have experienced a sustained increase in share.

- **Grocery** sales experienced the largest spike of all the consumer spending categories during the week prior to the shelter-in-place orders (week ending March 18) reaching 81% higher than sales during the same week of the prior year. For the most recent data, grocery sales were 26% higher than the same week in 2019.
- **General Merchandise** sales – which encompasses a large group of purchases such as gas, prescription medication, office supplies, and those from Amazon, other online and in-store retailers (like Kmart and Target) – also spiked before the shelter-in-place order (+33% over the prior year), but have since returned to a more normal sales total (+2% over the prior year).
- **Hobbies and Toys** sales spiked prior to the shelter-in-place order (+29% over the prior year) but have since declined significantly (-15% over the prior year, as of the most recent data).
- **Specialty Food and Beverage** sales began to rise at the end of February, and as of the most recent data remain at +63% higher than the same week in 2019.



2. Purchasing shifted from in-store to online

In-store spending in Silicon Valley, California, and nationwide spiked in mid-March (reaching 51%, 55%, and 50%, respectively, of all consumer spending); online spending has since dominated, with the most recent data reflecting 57%, 53%, and 49%, respectively, of all consumer spending.

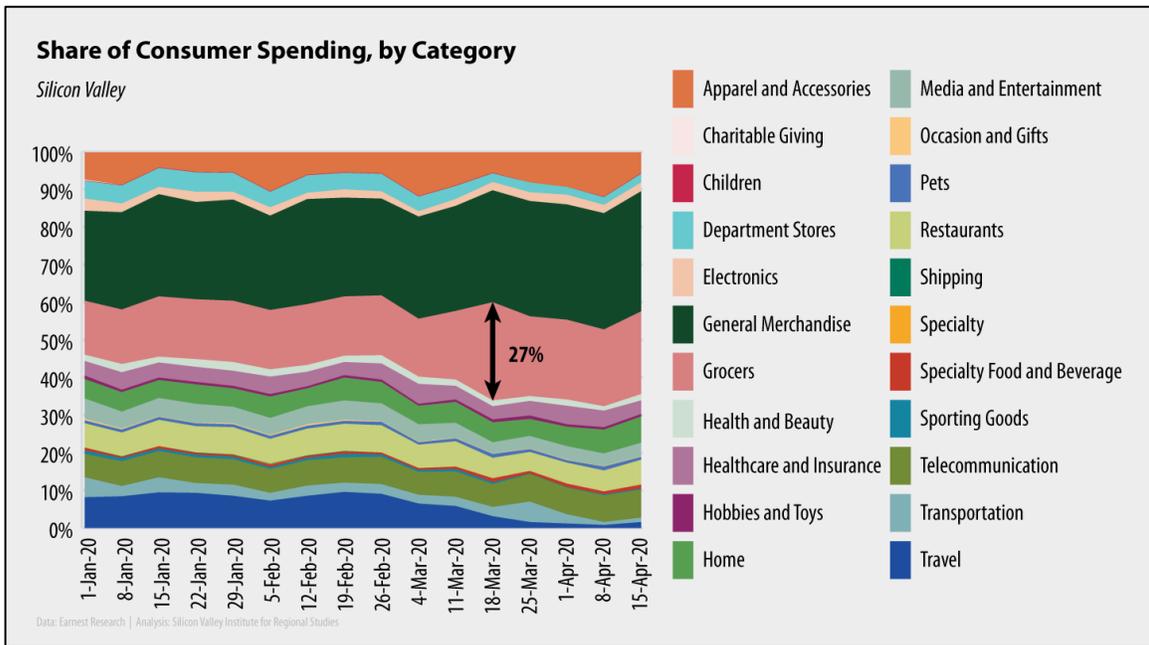


3. Consumers are spending their money on different things now

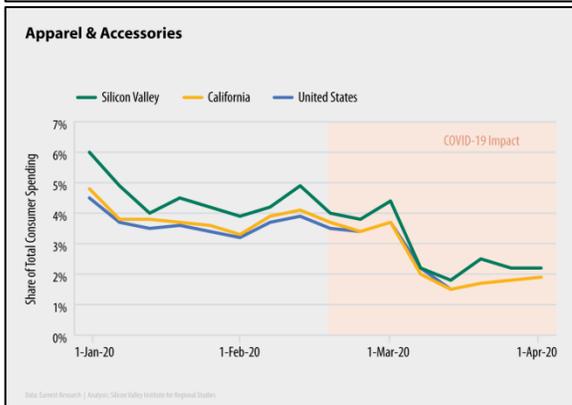
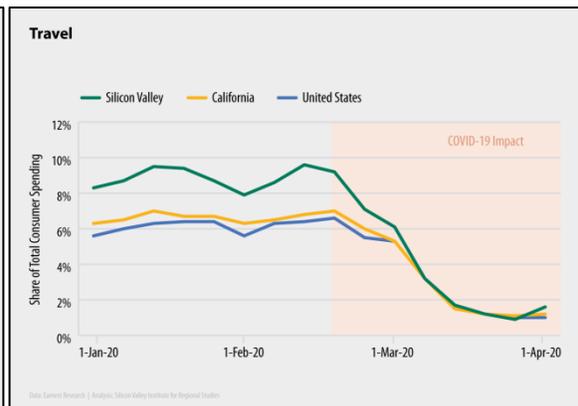
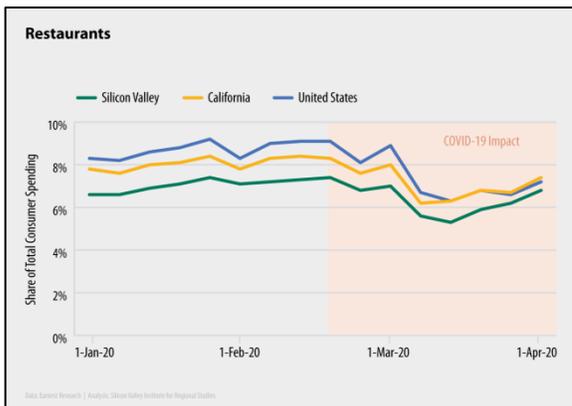
Consumer spending by category has shifted significantly since early-to mid-March, with notable declines in Travel, Transportation, Apparel and Accessories, Sporting Goods, Media and Entertainment, Restaurants, and Department Stores.

| Share of Total Consumer Spending | | |
|----------------------------------|-------------|--------------|
| <i>Silicon Valley</i> | | |
| Category | Most Recent | 2019 Average |
| Apparel and Accessories | 1.7% | 3.8% |
| Department Stores | 1.8% | 3.8% |
| Media and Entertainment | 2.8% | 3.9% |
| Restaurants | 5.1% | 5.4% |
| Sporting Goods | 0.2% | 0.6% |
| Transportation | 0.9% | 2.7% |
| Travel | 1.2% | 7.1% |

Consumer spending at grocery stores peaked during the week ending March 18, reaching 27% of all spending; as of the most recent data, grocery spending represents 23%.



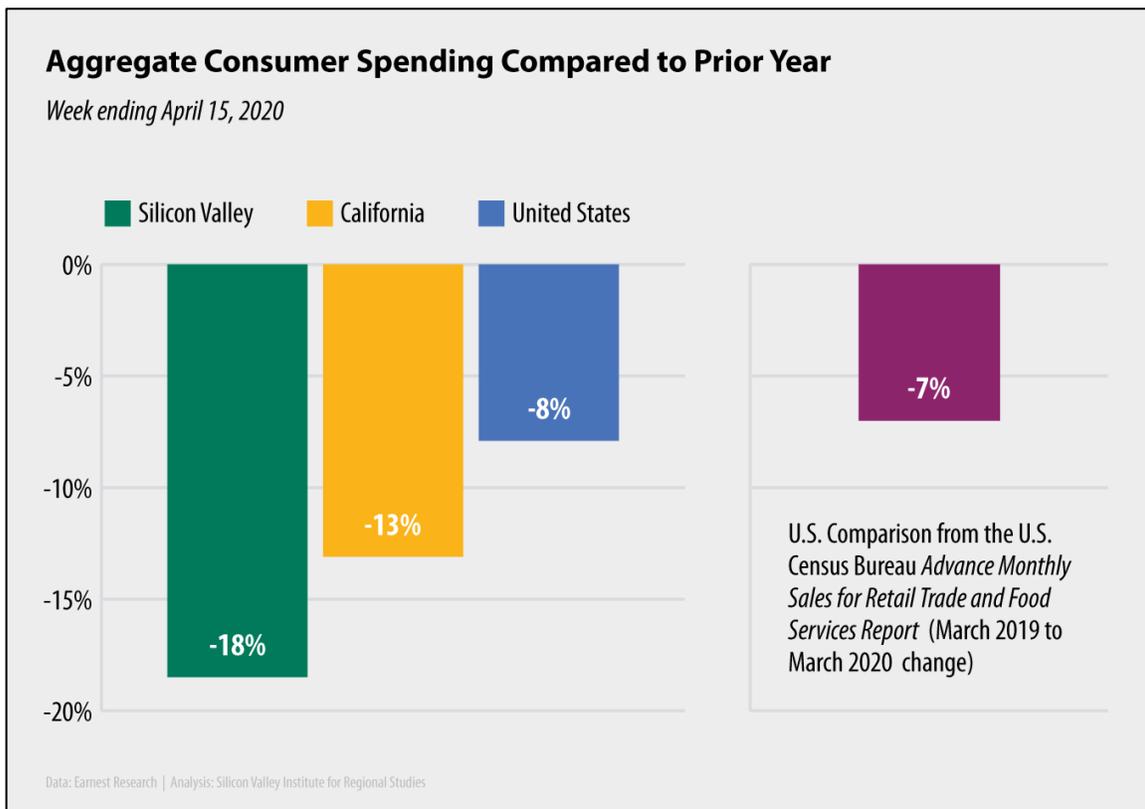
While the *share* of consumer spending at Restaurants did not show a significant decline in the recent data (-0.2 percentage points lower than the 2019 average), the total amount in the most recent data was significantly lower than that of the same week in 2019. Restaurant sales began to decline at the beginning of March, and reached a low of -40% below the prior year by March 25; as of the most recent data, restaurant sales are still down by 25% compared to 2019. Among restaurant subcategories, Casual Dining has been the hardest hit (-68%), then Quick Service Restaurants (-47%) and Fast Casual (-31%).



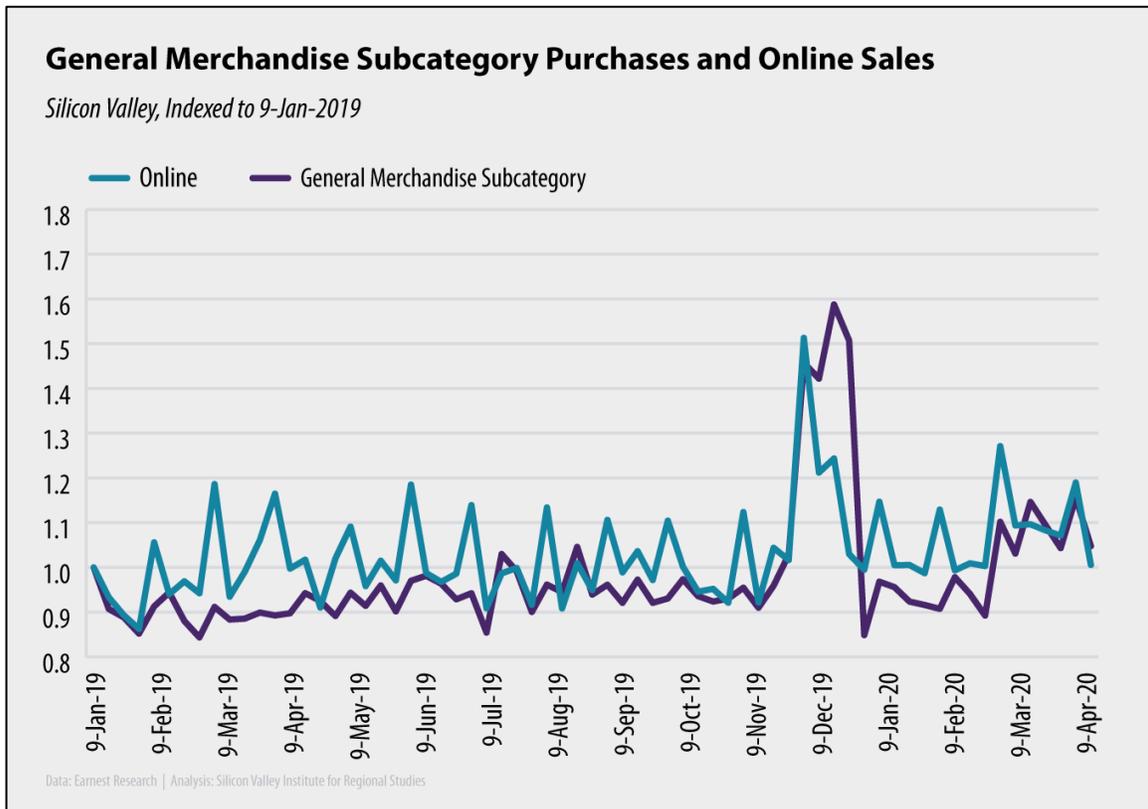
In addition to these categories representing a declining share of overall consumer spending in Silicon Valley, spending totals (as of the most recent data) are significantly lower than what they were during the same week last year.

- Apparel and Accessories (down 62%)
- Department Stores (-59%)
- Health and Beauty (-27%)
- Sporting Goods (-74%)
- Travel (down 87% overall, with 95% declines for airlines, -97% for lodging, -79% for online travel agencies, and -95% for rental cars)

4. Based on the most recent Earnest Research data, overall consumer spending in Silicon Valley is 18% lower than the same week last year. This compares to -13% and -8% lower than last year in California and the United States overall, respectively. The declines are driven primarily by less in-store purchasing activity.



5. Online consumer spending in Silicon Valley tracks fairly closely with the General Merchandise subcategory of General Merchandise – particularly over the past few weeks – which includes purchases from places like Amazon, Etsy, Walmart, and Target; this suggests that those types of retailers may dominate online purchasing.



- Based on the Earnest Research data, overall in-store consumer spending declined by an average of 32% (average of the four weeks post shelter-in-place orders) post COVID-19 impact. If this trend were to persist post-pandemic, then Silicon Valley could lose as many as 8,560 jobs across retail, accommodation, and food services.²

Company-specific examples of consumer spending trends supporting these regional findings include:

- National Grocery Store Chain** Kroger, has reported an increase in “same-store” sales of +30% in March³
- Quick Service Restaurant** McDonalds reported a “same-store” decline in sales of -22% in March⁴
- Clothing Retailer** H&M reported a 46% decline in March sales⁵
- Airline** Delta announced a loss of 13% for Q1 2020 compared to Q1 2019⁶

U.S. Census Bureau Data

In addition to the Earnest Research data, the Institute also examined data from the U.S. Census Bureau *Advance Monthly Sales for Retail Trade and Food Services Report* and found that in the United States, overall *unadjusted*⁷ retail sales revenues remained relatively steady between February and March, with increases in non-store retailers and declines in other areas.

Month-over-month changes (*unadjusted for seasonal variations*) were as follows:

- Overall retail increased by 0.2% between February and March, 2020⁷
- All retail *excluding "non-store retailers" and "food and drinking places"* increased by 1.5%
- Non-Store Retailers⁸ (+13%)
- Food Services & Drinking Places (-20%)
- Grocery Stores (+ 31%)
- Clothing & Clothing Accessories Stores (-44%)
- Sporting Goods, Hobby, Musical Instrument, & Book Stores (-14%)

- Furniture and Home Furnishings Stores (-19%)
- Motor Vehicle & Parts Dealers (-15%)

With the broad assumptions that gains in e-commerce persist post pandemic, the declines in storefront retailers persist, and grocery sales, restaurant revenue, and gasoline sales go back to a pre-pandemic “normal” there would be a 4.6% decline in retail and food service sales over a one-year period. *If these broad assumptions were true and national trends were mirrored here, Silicon Valley could lose as many as 12,150 jobs across retail in the year post-pandemic* if the transition away from brick-and-mortar stores to more e-commerce continues.²

Data Sources: Earnest Research (www.earnestresearch.com) and the U.S. Census Bureau *Advance Monthly Sales for Retail Trade and Food Services Report* (www.census.gov/retail/index.html)

Notes: Silicon Valley includes the Joint Venture city-defined region, encompassing all cities in Santa Clara and San Mateo Counties, plus Fremont, Newark, and Union City in Alameda County, and Scotts Valley in Santa Cruz County. Earnest Research weekly data is calculated from Thursday - Wednesday to account for processing lag. Data is derived from a panel of nearly 6 million U.S. consumers, normalized by the Earnest Consistent Shopper Methodology. In-Store and Online purchases do not include those made with store-specific credit cards (which cannot be disaggregated between in-store and online); gift cards are included in the data at the time of purchase (not the time the gift card is used). Purchases of grocery, clothing, or other type-specific items otherwise broken out in the Earnest data at places that sell multiple categories of items (like Amazon, Kmart, Target, and others) are included under General Merchandise. Earnest Research data historical trends have been validated against publicly reported sales figures when listed in SEC Filings, and have been found to capture 70-80% of the variance of those companies on average. Earnest Research sales generally match national Census retail sales data well, capturing roughly 80% of the total variation in advance retail sales (and 90% of the variation in some spending categories, such as retail sales on clothing, on groceries, and at department stores). Shares of total consumer spending by category do not include Finance, which is deselected by default because Finance transactions are not typically what would be considered 'spend' (e.g., person-to-person transfers on Venmo, and deposits into brokerage accounts like Fidelity).

¹ The Earnest Research Consistent Shopper methodology is a way to normalize for natural credit and debit card adoption and churn. Earnest’s proprietary algorithm identifies one million “Consistent Shoppers” (CS) out of the six million static panelists who transact frequently since the beginning of the dataset. If a CS panelist’s spend becomes inconsistent as identified by Earnest’s logic, all historical transactions associated with that panelist are removed. This ensures that the results reflect real world changes in consumer spending rather than changes in how consumers use their cards.

² Estimate based on the Silicon Valley jobs composition as of Q2 2019 in the *2020 Silicon Valley Index*, including retail (excluding those in Electronic Shopping and Mail-Order Houses), accommodation, and food services (in which accommodation and food services are combined). Assumptions are extreme and should be taken as a broad estimate only.

³ George Anders (April 22, 2020). *Hiring in a pandemic: lessons from the rise of "essential retail"* (www.linkedin.com/pulse/hiring-pandemic-lessons-from-rise-essential-retail-george-anders)

⁴ Amelia Lucas CNBC (April 8, 2020) *McDonald’s global same-store sales down 22% in March as coronavirus pandemic shuts dining areas* (www.cnbc.com/2020/04/08/mcdonalds-global-same-store-sales-down-22percent-in-march-amid-coronavirus-pandemic.html)

⁵ Reuters (April 2, 2020) *H&M’s March sales tumble 46% as pandemic hits, sees Q2 loss* (www.reuters.com/article/hm-results/hms-march-sales-tumble-46-as-pandemic-hits-sees-q2-loss-idUSFWN2BQ1DR)

⁶ Delta Airlines News Hub (April 22, 2020). *Delta announces March Quarter 2020 financial results and COVID-19 response actions* (<https://news.delta.com/delta-announces-march-quarter-2020-financial-results-and-covid-19-response-actions>)

⁷ Using the seasonally-adjusted retail sales data, the U.S. retail and food services sales declined by 8.7% between February and March, 2020.

⁸ Non-Store Retailers include those that are not traditionally thought of as e-commerce, such as mail order and infomercial sales, revenue from vending machines, home delivery including newspaper delivery and home heating oil, door-to-door solicitation, in-home demonstrations, and portable stalls like non-food street vendors.

For further reference

To access Silicon Valley’s online data hub, visit www.SiliconValleyIndicators.org

About the Silicon Valley Institute for Regional Studies

The Silicon Valley Institute for Regional Studies is the research arm of Joint Venture Silicon Valley, and is housed within the organization. The Institute provides research and analysis on a host of issues facing Silicon Valley's economy and society. <https://jointventure.org/institute/about-the-institute>.

About Joint Venture Silicon Valley

Established in 1993, Joint Venture provides analysis and action on issues affecting the Silicon Valley economy and quality of life. The organization brings together established and emerging leaders—from business, government, academia, labor and the broader community—to spotlight issues, launch projects and work toward innovative solutions. www.jointventure.org