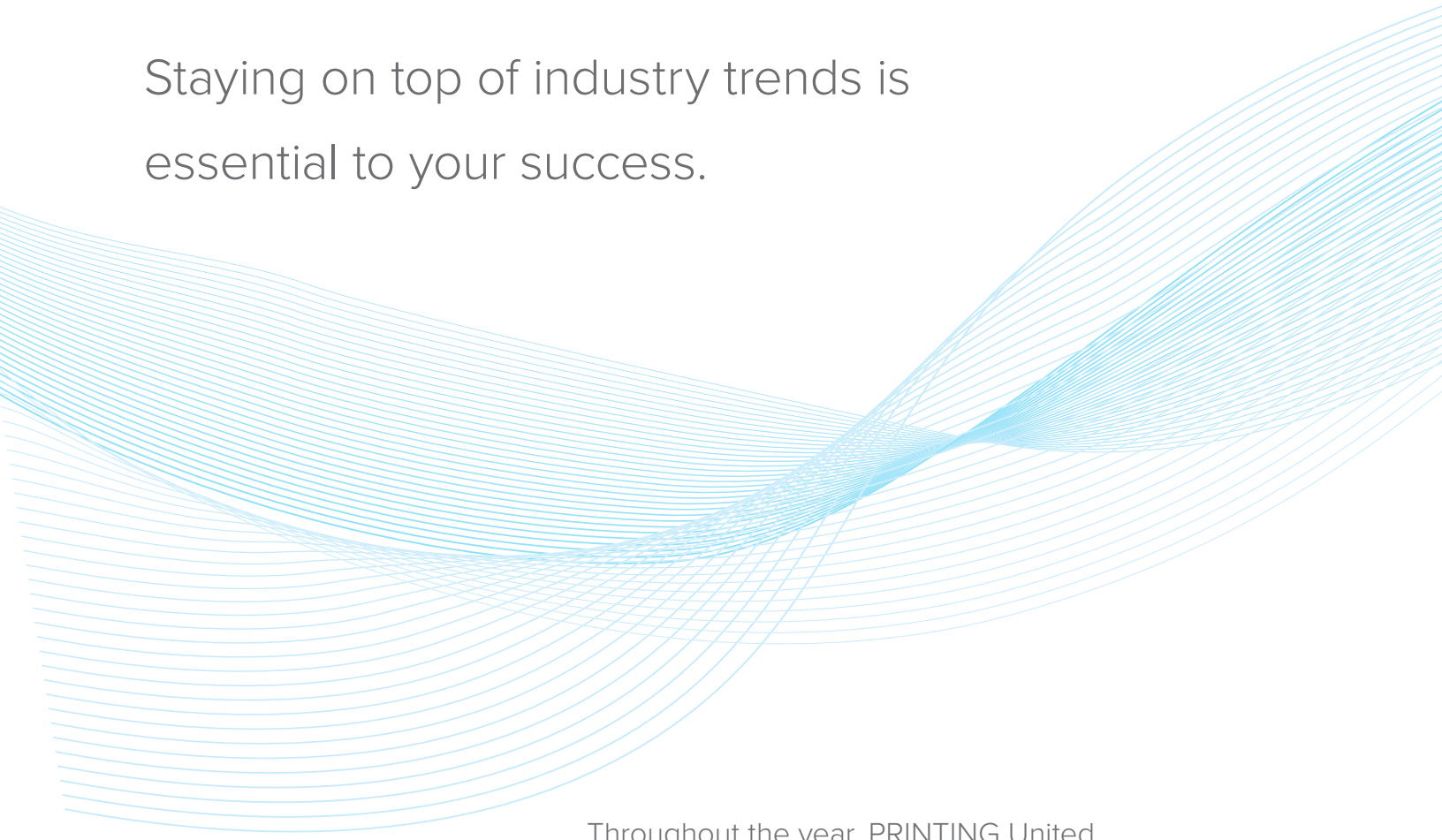




COVID-19 Print Business Indicators Research A Path Forward



Staying on top of industry trends is essential to your success.



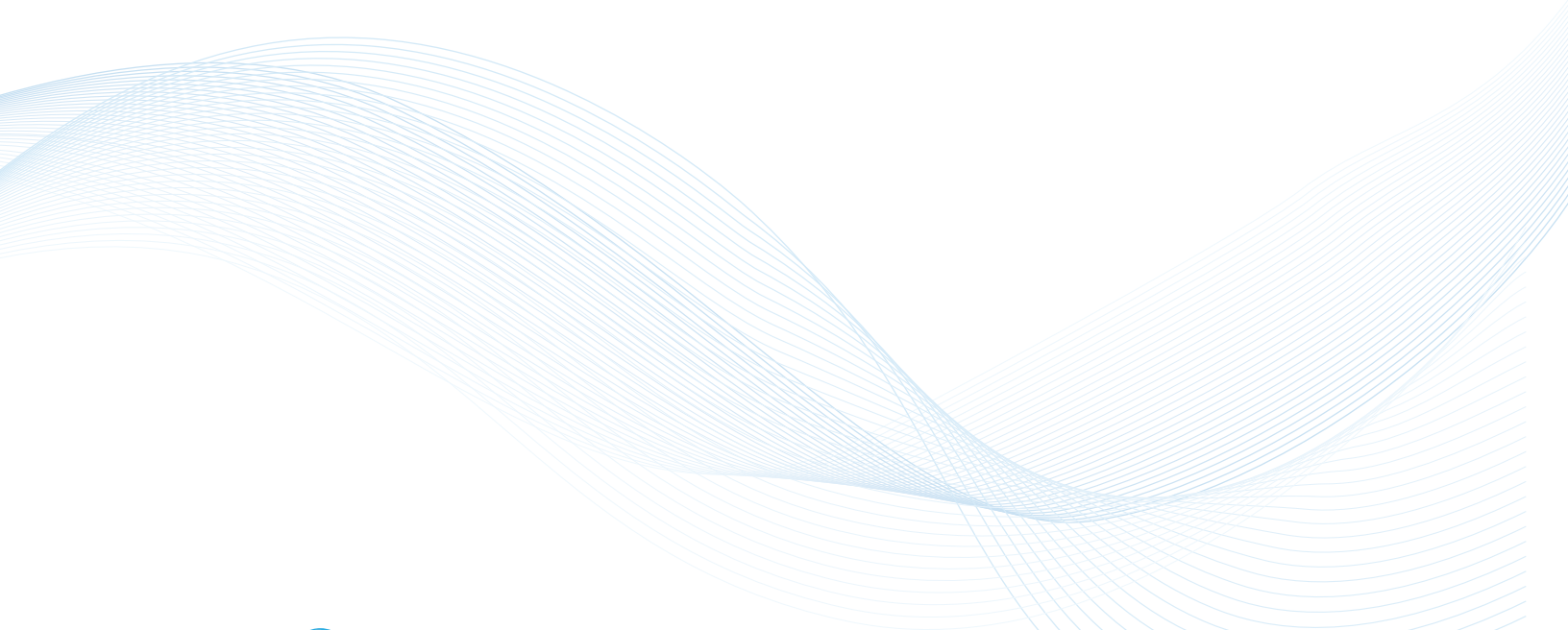
Throughout the year, PRINTING United Alliance's research team creates top-notch reports for the industry and works with consultancies to conduct commissioned research.

PRINTING United Alliance members get unlimited access to the resulting reports, featured here, that reflect the scope of the printing industry.

If you have any questions, please contact research@printing.org.

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Introduction

This is the third in a series of reports PRINTING United Alliance and NAPCO Research have created to examine the effects of the COVID-19 crisis on the printing industry, how printers are responding to the crisis, and how they can create a path forward.

The research is based on a bi-monthly survey that includes commercial printers, graphic and sign producers, apparel decorators, functional printers, and package printers/converters. (A profile of the participants is in Section 1.)

The survey tracks percent change in printing industry sales in two ways. The first is over year-earlier levels to gauge the depth and breadth of the crisis. The second is over the last 30 days to track movement since the crisis started in mid-March 2020: Has a bottom been reached? Is there movement off bottom? Is the movement accelerating?

An index of current business indicators tracks which way sales, production, employment, prices, and pre-tax profitability are trending. A reading above 50.0 means more printing companies report business is picking up from current levels than report it is slowing down, while a reading below 50.0 means the opposite. An index of leading business indicators signals what's ahead by tracking work-on-hand, quote activity, production payroll hours, and confidence. A reading above 50.0 suggests activity will be picking up from current levels, while a reading below 50.0 suggests the opposite.

Participant comments on current and expected business conditions put the numbers in context. An analysis of the American economy's likely course and what it would mean for the printing industry supplements the survey results.

An expanded report exclusively for the nearly 400-member COVID-19 Research Panel includes even greater detail on where the printing industry is headed, why, and how to make what's ahead an opportunity rather than a threat.

For information about COVID-19 Printing Business Indicators Research, please contact our research team at: research@printing.org.

The COVID-19 Research Panel

Having a representative panel of regular participants in COVID-19 Print Business Indicators Research enhances our research capabilities and allows us to provide more accurate and reliable data. By having a large pool of consistent respondents, we are able to increase the comparability of the data from survey to survey and reduce the non-response bias that is often a major source of error in survey data.

Building a panel also supports our ability to cultivate relationships with participants. By opening a line of communication with panel members, we can gain additional insight that goes beyond the scope of the survey questions. These interactions allow us to create a more detailed report and provide us with information that helps develop future surveys.

By joining the panel, you will not be required to provide any additional information. You simply agree to participate in future iterations of the surveys used to create this report. By doing so, you will receive an enhanced version of the report that includes additional information that can better help your business navigate this challenging environment.

The panel member version of this report includes actions that can be taken to make sure that you are not left behind when coming out on the other side of this global crisis. It also includes a section on mergers and acquisitions as many printers mentioned that it may be the perfect time to investigate making these business decisions as some firms are vulnerable and ready to sell

To join the COVID-19 Print Business Indicators Panel, please [click here](#).

For information about the Panel, please contact David Wilaj, Economist, PRINTING United Alliance, dwilaj@printing.org, or Andy Paporozzi, Chief Economist, PRINTING United Alliance, apaporozzi@printing.org.

Executive Summary

More than 230 printing companies from across the United States and Canada participated in the third PRINTING United Alliance and NAPCO Research COVID-19 Print Business Indicators Survey. Topics included percent change in sales over the last 30 days (late July through late August), current trends in sales, production, quote activity, and confidence, how 2020 first-half sales compared with year-earlier levels, and answers to questions such as: Have clients closed permanently because of the crisis? If so, how have the closures affected your revenue? And what percent of your revenue is directly COVID-related? Comparisons with the results from our first two survey periods show the printing industry has taken a first step toward recovery.

Key Findings

- Compared to the same period in 2019, first-half 2020 sales dropped for nearly 80.0% of respondents, by 28.5%, on average. Sales fell for 79.1% of the commercial printers, 85.7% of the graphic and sign producers, and 81.3% of the apparel decorators, by averages of 27.3%, 26.4%, and 47.5%, respectively.
- Sales fell 4.7%, on average, during the 30 days ending in late August for companies surveyed. This is a vast improvement over declines of 53.7% and 30.2% for the March/April and May/June survey periods, respectively.
- More companies report sales, production, quote activity, and work-on-hand are trending higher compared to the deepest days of the COVID-19 crisis.
- The index of current indicators continues to rise as sales, production, employment, prices, and pre-tax profitability all continue to trend upward.
- The index of leading indicators reached 50.0 (53.6) for the first time, indicating that business activity is beginning to increase as we move past the summer and into the fall/election season.
- 54% of printers have had clients close permanently due to the pandemic resulting in varying levels of revenue loss. These firms will need to find business elsewhere when the economy fully reopens.
- 78% of firms reported that they have pivoted to creating COVID-related products during the pandemic. These revenues accounted for less than 10% for a majority of respondents but others have been anchored by these sales since March.
- 64.8% of respondents indicated that their number of employees has decreased since January 1.

Section 1: Participant Profile

Number surveyed: 237

Company Size: 2019 Sales (all sources)

2019 Sales (m=millions)	Percent
\$500,00 or less	15.6%
\$500,000+ to \$1M	14.6%
\$1M+ to \$3M	19.3%
\$3M+ to \$5M	12.7%
\$5M+ to \$10M	13.7%
\$10M+ to \$25M	11.8%
\$25M+ to \$50M	9.4%
\$50M+ to \$100M	1.4%
More than \$100M	1.4%

Primary Printing Segment

Segment	Percent
Commercial printer	59.2%
Graphic and sign producer	22.4%
Apparel decorator	9.2%
Package printer/converter	4.6%
Functional printer	4.6%

Section 1: Participant Profile

Location

Location*	Percent
United States	94.3%
West	20.9%
Pacific	10.9%
Mountain	10.0%
Midwest	30.8%
Plains	9.5%
North Central	21.3%
South	22.3%
South Central	5.2%
Southeastern	17.1%
East	20.4%
South Mid-Atlantic	3.8%
North Mid-Atlantic	12.8%
New England	3.8%
Canada	5.7%

* **Pacific:** Alaska, California, Hawaii, Oregon, Washington. **Mountain:** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Plains:** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **North Central:** Illinois, Indiana, Michigan, Ohio, Wisconsin. **South Central:** Arkansas, Louisiana, Oklahoma, Texas. **Southeast:** Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee. **South Mid-Atlantic:** Delaware, District of Columbia, Maryland, Virginia, West Virginia. **North Mid-Atlantic:** New Jersey, New York, Pennsylvania. **New England:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Section 2 — What The Metrics Tell Us

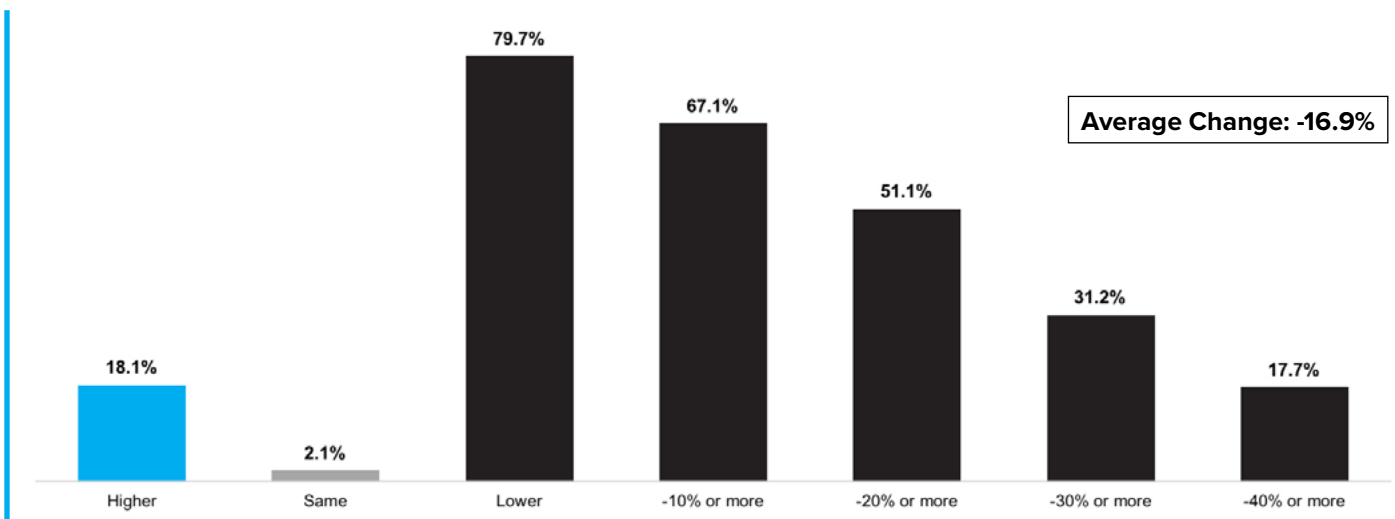
“We are running about 60% of normal at this point but have seen a month-by-month uptick since April.” That comment, from a COVID-19 Print Business Indicator Panel member, summarizes business conditions in the printing industry. Activity is far below year-ago levels because the economic disruptions of the pandemic — clients operating at a fraction of capacity, in-person events cancelled, travel and tourism depressed, schools only partially opened, no one sure what’s next, etc. — continue to grip the printing industry and the American economy. But sales, quote activity, and work-on-hand show that movement off bottom continues. Particularly encouraging: 45.2% of the companies we survey expect business to improve during the month ahead, up from just 16.2% last spring.

Sales

The August COVID-19 Print Business Indicators Survey measured change in sales both year-over-year to capture the depth and breadth of the recession and over the last 30 days to capture movement toward recovery.

Among all companies surveyed, sales fell 16.9%, on average, during the first half of 2020 from year-earlier levels. Sales were down for 79.7%, falling at least 20.0% for 51.1%, at least 30.0% for 31.2%, and at least 40.0% for 17.7%.

Sales: 1st Half 2020 over 1st Half 2019



Q. How did your first-half 2020 sales compare with your first-half 2019 sales?

n=237

The distribution of individual company results around the average is telling. On one side are the 18.1% who increased sales through mid-year by capturing opportunities created by the crisis — “We made a pivot to PPE, face shields, sneeze guards, etc. This has been incredible for us. Print is down about 30% year-over-year” — by serving industries that got a boost from the pandemic, such as healthcare, home entertainment, home education, and food packing, or both. Their sales increased 32.2%, on average.

On the other side are the 79.7% for whom sales decreased — by 28.5%, on average — showing how deep the COVID recession has been for the large majority of the printing industry. Participants in our research describe it as a “seismic downturn” and 2020 as “one brutal year,” adding comments such as, “Unfortunately, we are trading dollars for dimes: menus for QR codes, training manuals for online learning, tradeshow materials for digital assets, etc.”

Section 2 — What The Metrics Tell Us

Sales Summary: 1st Half 2020 Over 1st Half 2019

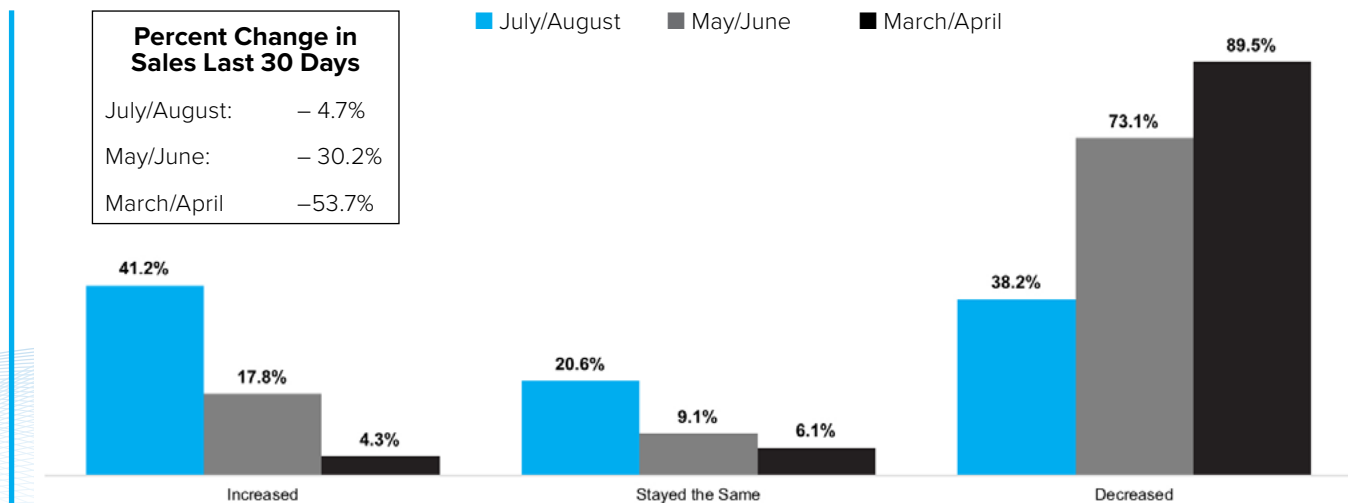
Group	Percent of Sample	Average Change
All Companies Surveyed	100.0%	-16.9%
Sales Increased	18.1%	32.2%
Sales Decreased	79.7%	-28.5%

Q. How did your total sales (all sources) for the first half of 2020 compare with your total sales for the first half of 2019?
n=237

Comparing year-over-year sales is one way to measure our industry's performance and the way we normally would measure it. But there is nothing normal about what's happened since mid-March. To compare 2020 with 2019 is to compare two different worlds.

We need to know what's happened since the pandemic began early last spring. The news is positive: As the chart below shows, although sales are still declining, the rate of decline has moderated significantly, to 4.7% from 30.2% two months ago and 53.7% four months ago. And although still in the minority, more of the companies we survey report sales are increasing — 41.2%, up from 17.8% and 4.3% — while fewer report sales are decreasing — 38.2%, down from 73.1% and 89.5%.

That is progress. And while a return to pre-recession sales volumes isn't likely for years, the outlook for the American economy, discussed in Section 4, suggests the progress will continue, lifting the printing industry out of recession sometime in 2021.



Q. What has happened to your total sales (all sources) over the last 30 days?
n=232

Section 2 — What The Metrics Tell Us

Index of Current Indicators

The index of current business indicators rose to 46.7 in August from 35.0 in June and 18.6 in April as more of the companies we survey report activity is picking up from pandemic lows. (The index ranges from 100.0 and 0.0. The higher the reading the more widespread reports activity is picking up.)

Sales are trending higher for 41.2% and production for 36.5%, both significant improvements from previous readings.

The large majority (71.7%) are holding prices steady. But for the first time in our survey more are increasing prices (15.9%) than are decreasing prices (12.4%) as costs, from sanitizing facilities to procuring paper, continue to rise. One participant reports that despite the tough times, “there does not seem to be resistance to the price increases.”

Pre-tax profitability is trending higher for 27.5%, well short of the 44.2% for whom it is trending lower. But two months ago those numbers were 13.6% and 61.6%, respectively, and four months ago they were 4.0% and 80.8%, respectively. Price increases and productivity gains — “The business is much more efficient than before April. People are working with more intensity and care,” and “We are presently doing more work that fits us well” — are contributing to the improvement in margins. For many, however, a shortage of work continues to depress margins: “A lot of the orders are low dollar but still require research, quoting, project management, order entry, etc. It’s not enough to handle the overhead and payroll,” and “workload is trending upward but not enough to be profitable.”

July/August: 46.7

May/June: 35.0

March/April: 18.6

Indicator	Period	Current Trend		
		Increasing	Staying the Same	Decreasing
Sales	July/August	41.2%	20.6%	38.2%
	May/June	27.7%	15.2%	57.1%
	March/April	5.6%	5.8%	88.6%
Production/Amount of Work	July/August	36.5%	24.0%	39.5%
	May/June	25.7%	14.5%	59.8%
	March/April	5.8%	7.2%	87.0%
Employment	July/August	10.3%	59.7%	30.0%
	May/June	6.7%	59.6%	33.7%
	March/April	1.6%	40.7%	57.7%
Prices	July/August	15.9%	71.7%	12.4%
	May/June	7.1%	74.6%	18.3%
	March/April	4.4%	74.7%	21.0%
Pre-Tax Profitability	July/August	27.5%	28.3%	44.2%
	May/June	13.6%	24.8%	61.6%
	March/April	4.0%	15.2%	80.8%

Q. How is business trending? Please indicate whether each of the above is increasing, not changing, or decreasing?
n=233

Section 2 — What The Metrics Tell Us

Index of Leading Business Indicators

Confidence and quote activity lifted the index of leading business indicators to 53.6 in August, from 42.8 in June and 18.4 in April. (Like the index of current business indicators, this index ranges from 100.0 to 0.0. The higher the reading the more likely business will be improving from current levels.)

More than 45.0% of companies surveyed expect business to pick up during the month ahead, extending the improvement in mood we saw in June, when confidence jumped to 48.0% from 16.2%. For the first time during the COVID-19 recession, reports that quote activity is trending up (42.5%) exceed reports of the opposite (30.5%). Work-on-hand is also improving, trending higher for 33.0%, up from 23.7% in June and 5.6% in April. Limiting the improvement: Extraordinary uncertainty that makes clients hesitant to act on the quotes they request.

July/August: 53.6

May/June: 42.8

March/April: 18.4

Indicator	Period	Over the next month, we expect business to:			
		Increasing	Staying the Same	Decreasing	Not Sure
Confidence	July/August	45.2%	35.1%	7.0%	12.7%
	May/June	48.0%	21.9%	13.6%	16.5%
	March/April	16.2%	28.5%	33.5%	21.8%

Q. In relation to current conditions, do you expect business conditions for your company to improve, stay the same, or decline over the next month?

n=228

Indicator	Period	Current Trend		
		Increasing	Staying the Same	Decreasing
Quote Activity	July/August	42.5%	27.0%	30.5%
	May/June	27.5%	22.3%	50.2%
	March/April	4.4%	7.6%	88.0%
Work-On-Hand	July/August	33.0%	28.3%	38.6%
	May/June	23.7%	17.6%	58.7%
	March/April	5.6%	9.2%	85.2%
Production Payroll Hours	July/August	22.7%	39.1%	38.2%
	May/June	13.6%	38.8%	47.5%
	March/April	4.4%	19.2%	76.4%

Q. How is business trending? Please indicate whether each of the above is increasing, not changing, or decreasing?

n=233

Section 2 – What The Metrics Tell Us

Results by Printing Segment: Sales and Confidence

The data that follow are for companies that identify their primary printing business as commercial printing, graphic and sign production, or apparel decoration. (Unfortunately, we didn't have enough responses to provide results for functional printing or package printing/converting.) Notice that in all three segments:

- A small minority of companies grew during the first half of 2020 by capturing opportunities created by the COVID crisis, growing with industries given a boost by the crisis, or both, while the large majority took a big hit.
- Sales continue to decline but the rate of decline has moderated significantly since the start of the pandemic.
- Confidence has slipped from June but is still significantly greater than last spring. The primary reason for the decline: Ongoing uncertainty about when in-person events will resume, schools will reopen, tourism and travel will pick up, etc.

Sales Summary: First Half 2020 Over First Half 2019

Commercial Printers

Group	Percent of Sample	Average Change
All Companies Surveyed	100.0%	-14.3%
Sales Increased	20.0%	34.9%
Sales Decreased	79.1%	-27.3%

Q. How did your total sales (all sources) for the first half of 2020 compare with your total sales for the first half of 2019?
n=110 – 0.9% of firms reported that sales did not change

Graphic and Sign Producers

Group	Percent of Sample	Average Change
All Companies Surveyed	100.0%	-22.1%
Sales Increased	9.5%	33.6%
Sales Decreased	85.7%	-26.4%

Q. How did your total sales (all sources) for the first half of 2020 compare with your total sales for the first half of 2019?
n=42 – 4.8% of firms reported that sales did not change

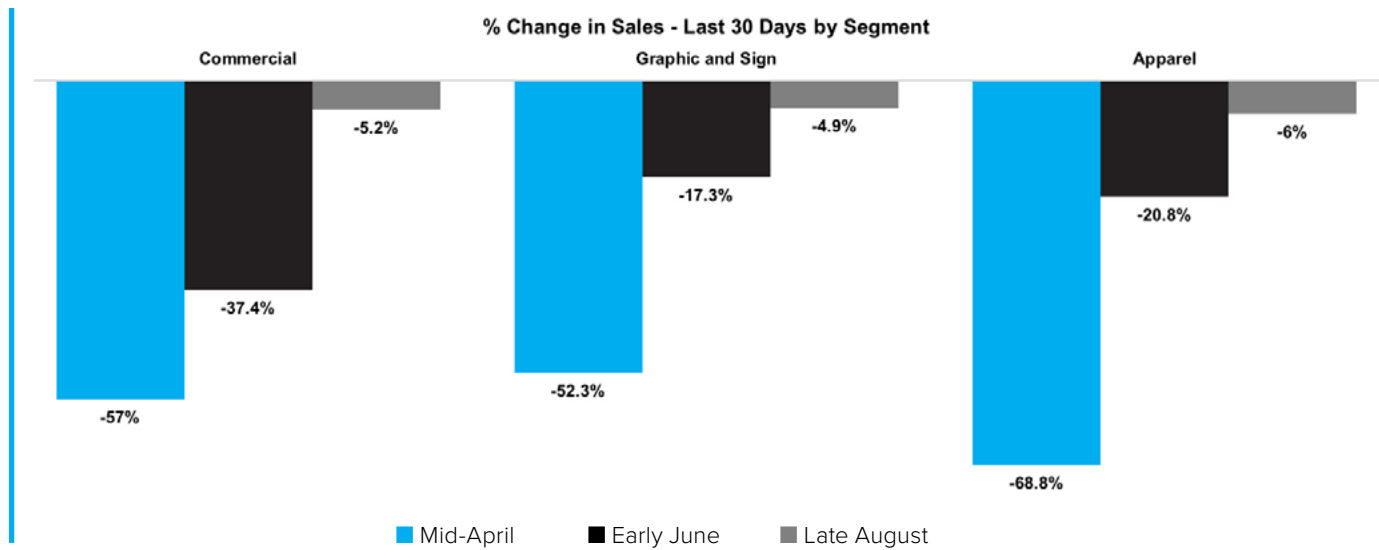
Apparel Decorators

Group	Percent of Sample	Average Change
All Companies Surveyed	100.0%	-33.7%
Sales Increased	18.7%	26.5%
Sales Decreased	81.3%	-47.5%

Q. How did your total sales (all sources) for the first half of 2020 compare with your total sales for the first half of 2019?
n=16

Section 2 — What The Metrics Tell Us

Sales Summary: Percent Change Last 30 Days



Q. What has happened to your total sales (all sources) over the last 30 days?

Commercial: n=110, Graphic and Sign: n=44, Apparel: n=16

Confidence

Commercial Printers

Period	Over the next month, we expect business to:			
	Increase	Stay the Same	Decrease	Not Sure
July/August	46.3%	32.4%	7.4%	13.9%
May/June	48.5%	20.4%	11.4%	19.7%
March/April	15.8%	27.0%	35.4%	21.9%

Q. In relation to current conditions, do you expect business conditions for your company to improve, stay the same, or decline over the next month?

n=108

Section 2 — What The Metrics Tell Us

Graphic and Sign Producers

Period	Over the next month, we expect business to:			
	Increase	Stay the Same	Decrease	Not Sure
July/August	41.5%	48.8%	7.3%	2.4%
May/June	46.4%	25.0%	16.1%	12.5%
March/April	15.2%	25.3%	32.9%	26.6%

Q. In relation to current conditions, do you expect business conditions for your company to improve, stay the same, or decline over the next month?

n=41

Apparel Decorators

Period	Over the next month, we expect business to:			
	Increase	Stay the Same	Decrease	Not Sure
July/August	37.5%	31.3%	6.3%	25.0%
May/June	55.0%	15.0%	22.5%	7.5%
March/April	13.0%	33.3%	33.3%	20.4%

Q. In relation to current conditions, do you expect business conditions for your company to improve, stay the same, or decline over the next month?

n=16

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

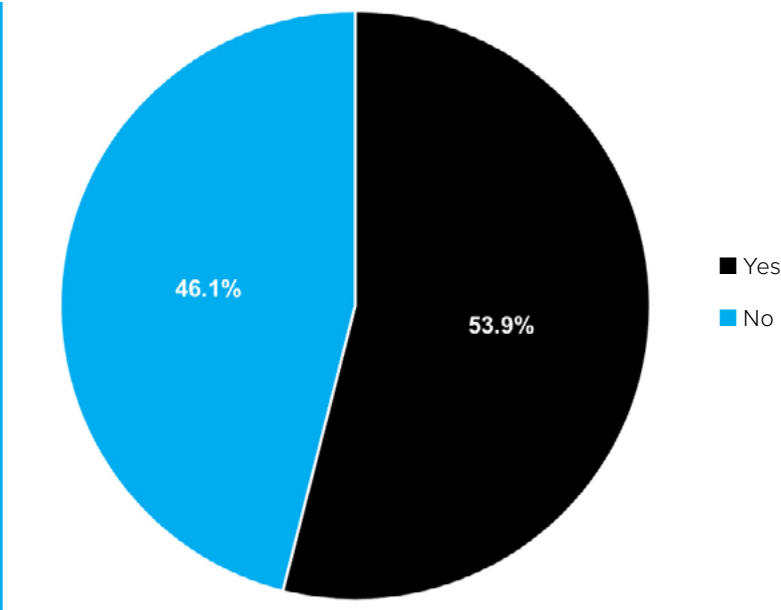
COVID-19 has certainly created unprecedented economic disruption across a variety of industries. Many have been forced to cut back production, hours, employees, or a combination of all three depending on the type of business and market served. Since print is so wide-reaching and has clients across an array of industries, many of these consequences were also pushed to these companies' print service providers. On the other side of the coin, as these companies begin to reopen and operate at pre-COVID capacities, printers will recover as well.

Client Closures

In times like these, the term “survival of the fittest” seems to resonate with many business owners. Firms are thrust into survival mode knowing that when the smoke clears and we come out on the other side of this pandemic, the business landscape will be much different. The truth is, many companies will not make it and this will directly affect the businesses of those who provide them with print services.

When asked if they have had clients close permanently throughout the pandemic, a surprising number of printers said “yes.” More than half, about 53.9%, of printers have seen clients permanently shuttered. The other 46.1% were more fortunate and saw all of their clients survive for the time being.

Have Any of Your Clients Closed Permanently?

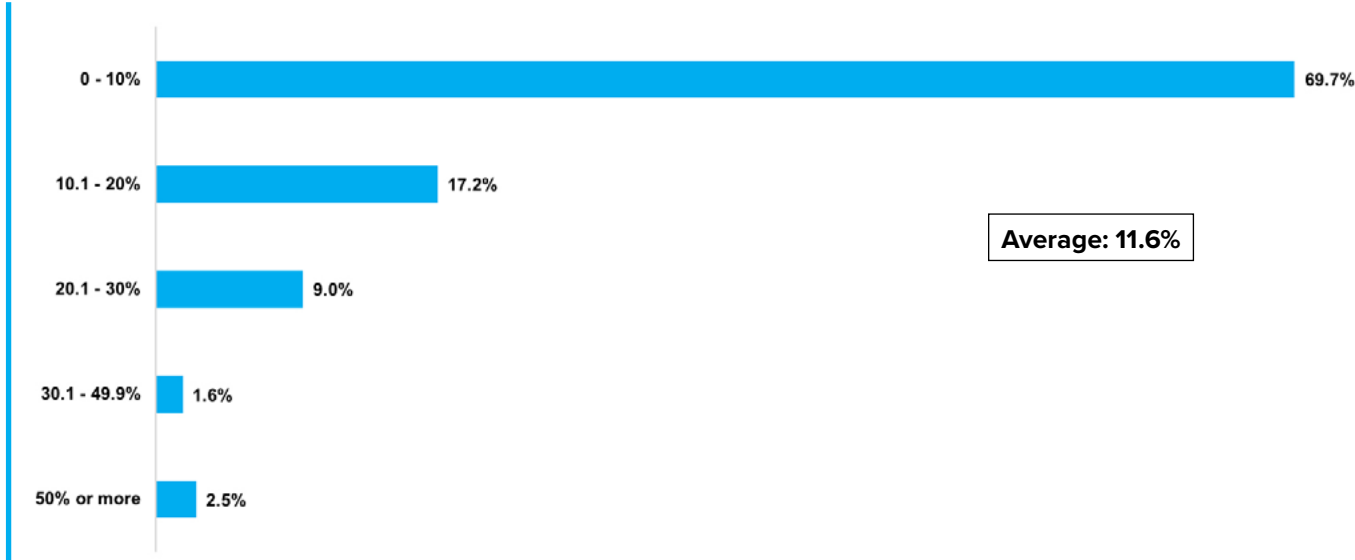


Q. Have any of your clients closed permanently as a result of the COVID-19 pandemic?
n=228

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

In order to get a gauge of how much business these closures would cost printers, we also asked respondents to report the amount of revenues that each of these firms accounted for. A majority of printers said that these closures will cost them 10% or less of their revenues while others were hurt at greater magnitude. Of those reporting losses of 50% or more, one reported that they would lose approximately half of their business, while two others said that their revenues would drop by 70% and 75%. On average, these shuttered firms accounted for about 11.6% of revenues.

% of Revenue Lost

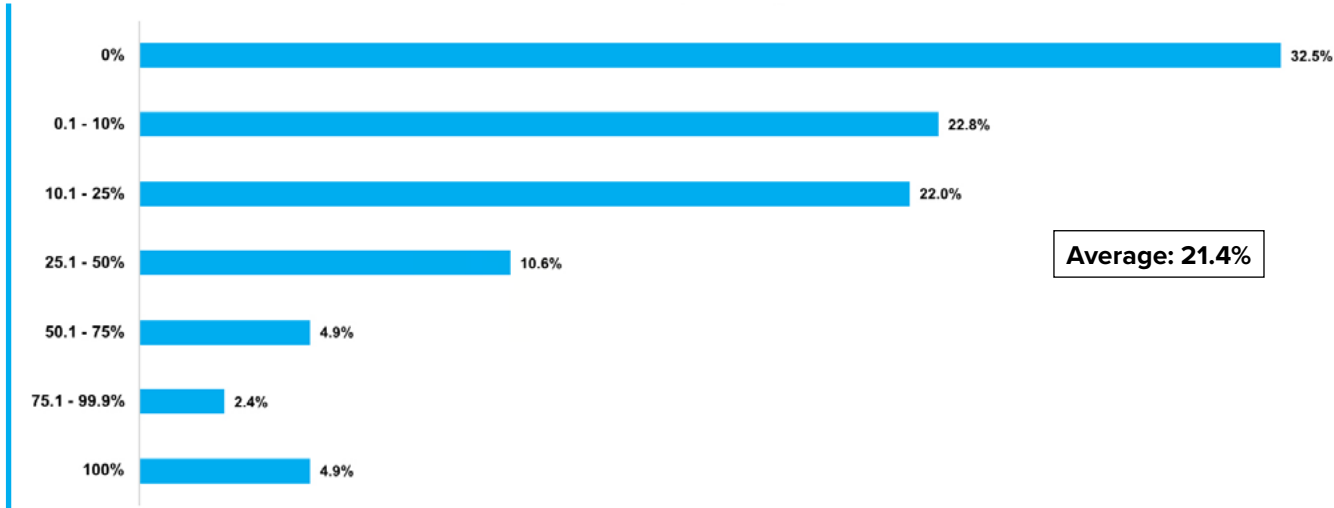


Q. Approximately what percent of your revenue did these closed businesses represent?
n=122

For most of these printers, losing even 10% of sales can have a disastrous effect on profits. These sales need to be recovered somewhere and they must be recovered fast. Respondents were asked to estimate what portion of these revenues will be regained by the end of the year. Nearly one-third of printers said that they didn't think that it would be possible to recover any of these revenues by the end of 2020. More than 50% of respondents thought they could recover at most 50%. Others were confident in their ability to find revenues elsewhere as about 5% of printers assumed that they would be able to recover everything that they had lost before the new year.

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

% of Lost Revenue Regained by the End of 2020



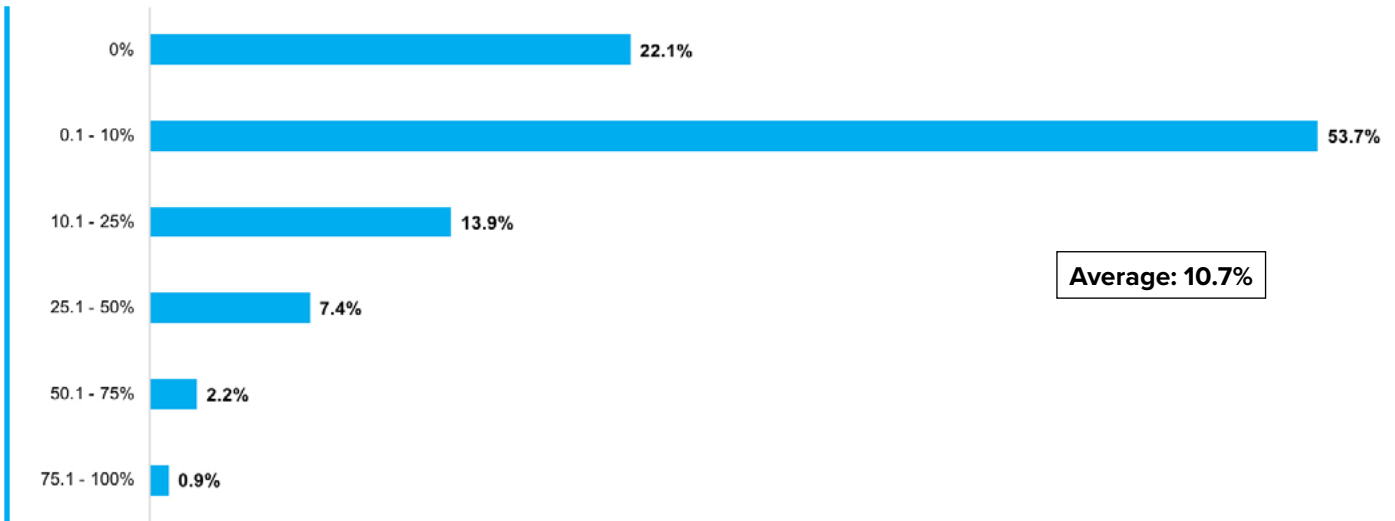
Q. Approximately what percent of the lost revenue do you expect to regain by the end of 2020?
n=122

COVID-Related Sales

It is easy to see that the numbers skew towards the lower end when it comes to printers being able to replace lost revenue by the end of 2020. This shows that it is obviously a challenging time to replace lost business, especially if a firm isn't willing to pivot and produce a line of products that are atypical for the company. On the other hand, some were willing to pivot early and took advantage of the current situation by producing COVID-related products such as PPE and social distancing graphics. Others have simply lucked out because the industries that they work with have seen growth because of the virus. This includes those who produce labels and packaging for food, pharma, and household products. To understand how much business is associated with COVID-related products, respondents were asked to estimate what percent of their sales currently fall under this category. On average, respondents indicated that about 10.7% of their business was COVID-related. Obviously, this could provide a huge boost during this difficult time, but it does appear that many were not willing to make the pivot as more than 22% of respondents indicated that COVID-related sales were 0%. The majority of firms fell between the 0-10% range (53.7%) and barely any relied solely on these products as only 2.2% fell between 50-75% and less than 1% had COVID-related sales account for more than 75% of revenues.

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

% of Sales that are COVID-Related



Q. What percent of your business is directly COVID-related personal protection equipment, social-distancing graphics, updates on health/safety guidelines, industries/clients that have grown as a result of the virus, etc.)?
n=231

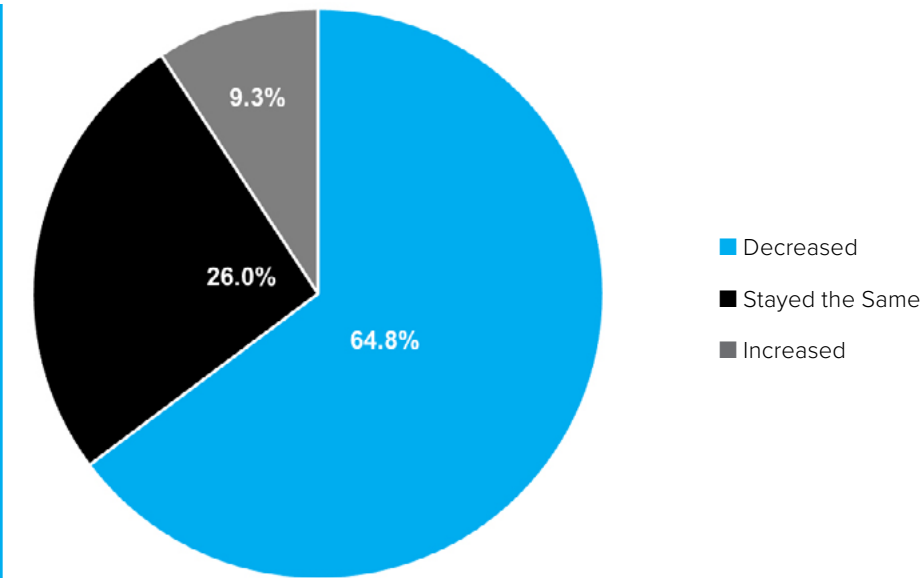
Although these sales provided a lifeline for printers since March, many need to understand that they will not last forever and must plan on pivoting again once a vaccine is developed and these products are no longer needed. Of course, some business may come from the new relationships that have been created, but others will see this valve shut off and must return to their typical clientele or they must find another source of revenue. Some clients will be up for grabs as their print service providers may close permanently, but only a small number will be lucky enough to scoop up these accounts. For the majority, decision makers must start looking past COVID and begin developing a plan to regain sales before it is too late.

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

Employment

In the July 2020 COVID-19 Print Business Indicators Report, we discussed the effect that stimulus programs such as the Paycheck Protection Program (PPP) had on stabilizing employment. Since that program has expired, we thought it would be a good idea to see how employment numbers have changed from the beginning of 2020 until the beginning of September. Coming as no surprise, a majority of printers, 64.8%, have been forced to cut their employment numbers since January 1, while just under 10% reported a net positive change during this time period.

Since January 1, Total Employment Has...

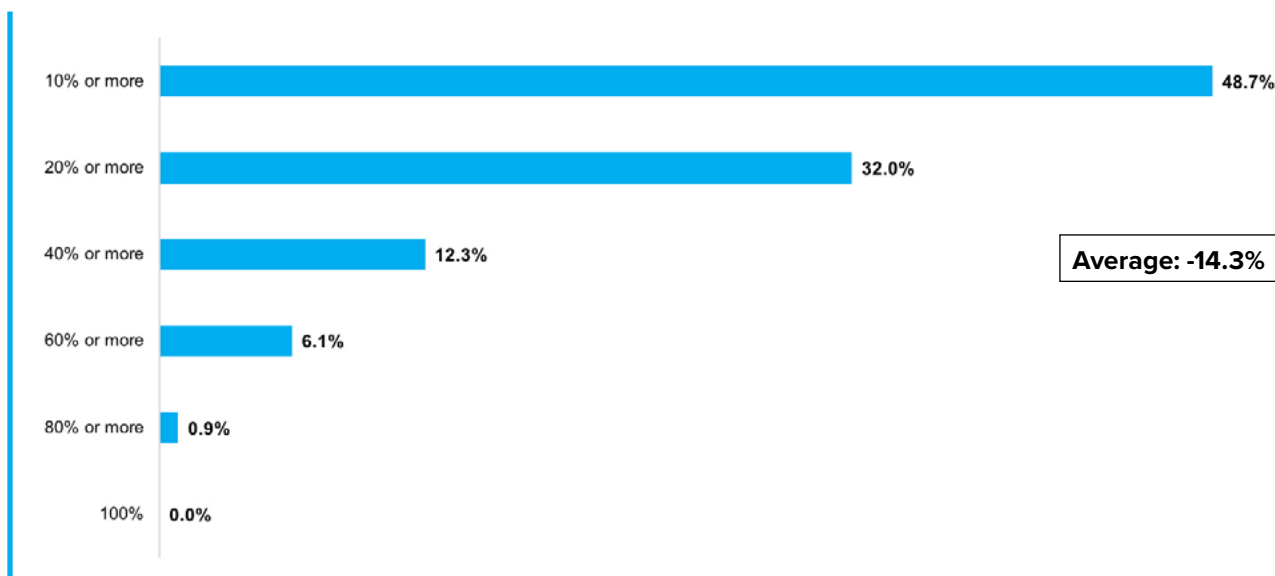


Q. What was your employee count on January 1, 2020 and what is your current employee count?
n=226

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

The average printer has seen employment drop by about 14.3% since the beginning of the year. One positive is that a majority of printers, 51.3%, have seen their employment fall by less than 10%. Almost half, 48.7%, have seen a decrease of 10% or more while nearly a third have seen a decrease of 20% or more.

Decrease in Employment from January 1 until September



Q. What was your employee count on January 1, 2020 and what is your current employee count
n=226

As previously mentioned, some of these numbers were stabilized by the availability of PPP loans throughout the middle part of the year. The Economy section of this report (section 5) discusses the possibility of another round of funding and/or alternate stimulus solutions that can potentially keep businesses open and employees on the floor.

Potential Post-COVID Market Shifts – E-commerce

It's no secret that COVID has created change across all industries. Some of these changes were only temporary, but there are certain things that will have a longer lasting effect; permanent changes to the way that businesses operate. Things like a shift to working from home, deglobalization trends and policy makers referencing modern monetary theory in their decision making process will mark some of these major changes, but the one that printers must begin thinking about now is how the demand for e-commerce has never been stronger.

Just under 10% of respondents indicated that developing e-commerce capabilities would be huge for printers as we move out of the recession. From what they have seen, clients crave the ability to complete the whole sales process online and would like to streamline as many steps as possible. They believe that offering these capabilities creates long term relationships that can last even longer than previously seen with traditional methods of communications.

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

One respondent, who says that about 31% of their sales are now via e-commerce, gave a glimpse into why they believe ecommerce is a major part of printings future:

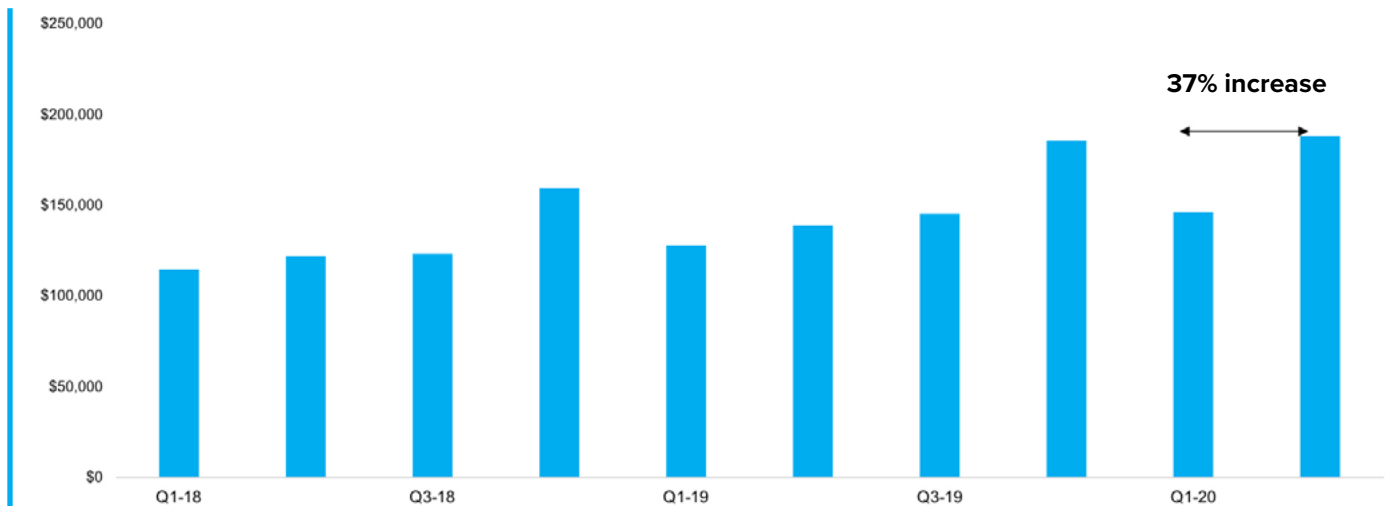
“E-commerce relationships, when done well are very long lasting. The supplier/client relationship is much deeper and more complex. This transitions the relationship to a vendor partner – even if the product itself is a commodity. How the client wants their data and orders handled and taking as many steps out of their process is the route to success.”

They also added that, “E-commerce sales have been very stable and consistent throughout the pandemic.”

Others felt the same way. Those who already had e-commerce capabilities in place mentioned that it has been very valuable during this time period. Those who don’t mentioned that they are working to get some of these capabilities set up. It will not be business as usual when a vaccine is developed and if you are caught without some of these modern capabilities, then it may be reflected in your sales more severely than previously thought.

The chart below shows American e-commerce sales for each quarter since the beginning of 2018. Typically, there is a major boost for these types of sales during the fourth quarter, which obviously coincides with holiday shopping, while the first three quarters typically remain pretty consistent. This year has been different however. These sales rose by 37% in the second quarter of 2020. A jump that exceeds the typical holiday boost seen in quarter 4. While this rise can certainly be attributed to brick and mortar stores having to temporarily halt business, many consumers have gotten used to this way of life and will continue to make purchases this way in the future.

Total Retail Trade - Total E-Commerce (Millions)



U.S. Census Bureau

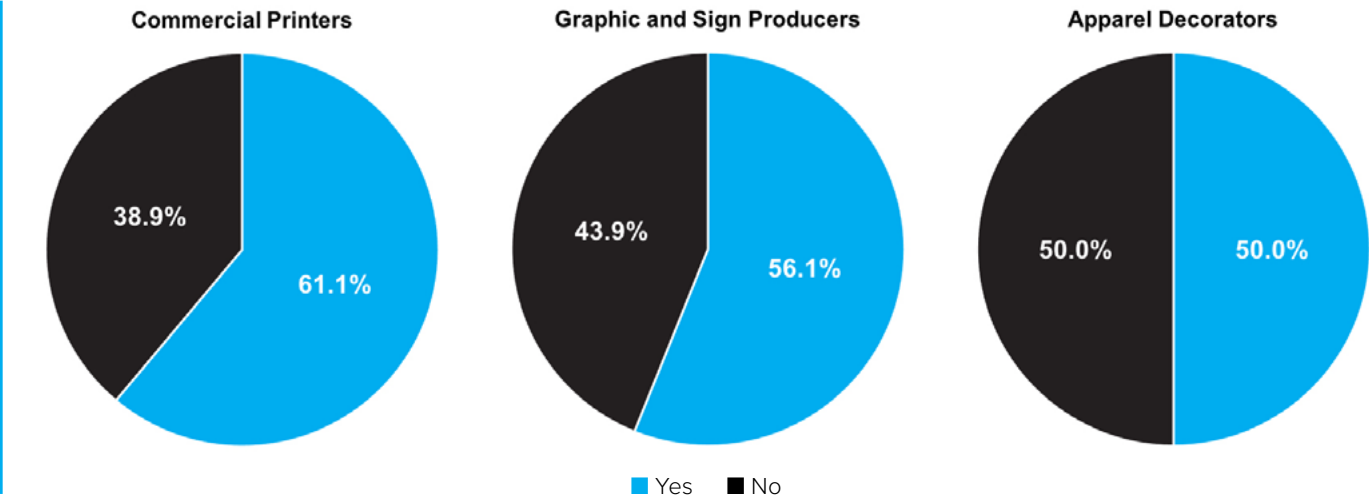
Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

Results by Printing Segment: Employment, Client Closures and COVID-Related Sales

The data that follow are for companies that identify their primary printing business as commercial printing, graphic and sign production, or apparel decoration. (Unfortunately, we didn't have enough responses to provide results for functional printing or package printing/converting.) The tables and charts below break down the results discussed above as each segment is typically affected in its own way.

Have Any of Your Clients Closed Permanently?

In each segment, at least 50% of firms have experienced the permanent closure of one of their clients. This shows how wide-ranging the negative effects of the pandemic were. This is especially true when looking at commercial printers who have the broadest range of clientele as more than 60% of respondents reported client closures.



Q. Have any of your clients closed permanently as a result of the COVID-19 pandemic?
Commercial: n=108, Graphic and Sign: n=41, Apparel: n=16

Section 3 — COVID-19 Effects On The Printing Industry: A Closer Look

COVID-Related Business

When asked if they have pivoted to producing COVID-related products throughout the pandemic, segment responses were relatively in line with those of the industry as a whole. Apparel decorators did report these pivots at a higher rate than commercial printers or graphic and sign producers. This is likely explained by the fact that apparel decorators were forced to pivot at a higher rate. Many of the firms in this segment rely on the travel and event industries as well as others who were heavily burdened by shutdowns. Obviously, these apparel decorators had to find business elsewhere and on average they were able to generate 15.7% of their business from these COVID-related products.

What % of Your Business is COVID-Related?	
Segment	% of Sales
Commercial Printers	10.2%
Graphic and Sign Producers	12.3%
Apparel Decorators	15.7%

Q. What percent of your business is directly COVID-related (personal protection equipment, social-distancing graphics, updates on health/safety guidelines, industries/clients that have grown as a result of the virus, etc.)?

Commercial: n=108, Graphic and Sign: n=41, Apparel: n=16

Employment

Every segment saw their average employment numbers drop since the beginning of the year. Graphic and sign producers' were of the least magnitude, while commercial print wasn't far off from the industry average of -14.7%. Once again, apparel decorators were the hardest hit. The reasoning behind this is the same as above. Once events continue and people feel comfortable traveling again, we will most likely see this segment catch up to others in the industry in terms of recovery.

Average Employment Change Since January 1	
Segment	% of Sales
Commercial Printers	-15.4%
Graphic and Sign Producers	-10.2%
Apparel Decorators	-26.6%

Q. What was your employee count on January 1, 2020 and what is your current employee count?

Commercial: n=108, Graphic and Sign: n=41, Apparel: n=16

Section 4 — Thinking Beyond COVID-19

Leading our companies through the COVID-19 crisis is obviously priority number one. But we benefit little from entering the post-COVID world unprepared for its opportunities and challenges. We can think about tomorrow without losing sight of what we need to do today. Many we surveyed already are.

We asked where they see post-pandemic opportunity. (By post-pandemic we mean when we've learned to live with the virus, because that's what we'll have to do.) There is uncertainty — “We're still trying to figure that out” —and forecasts that are “mostly negative: fewer events, smaller events, online menus, fewer tourists, and fewer customers making in-person sales calls, affecting presentation folder and business card printing (high-touch items).” A number see opportunity in COVID-related signage, printing, and PPE as the pandemic drags on, but not in much else.

Others we surveyed identified a variety of products and services that they believe will grow post-COVID. These include various kinds of packaging, fulfillment and kitting, and services that limit the spread of disease, such as anti-microbial printing, touchless interfaces, and “the application of anti-viral property inks as protective overlays.”

The service identified far most often: targeted print communication that delivers a high ROI to the client. One participant in our research is seeing “more people getting back on the direct-mail bandwagon because people are Zoomed out and the number of emails is overwhelming — How do you get your message through that?” His clients are using direct mail to update employees on plans and procedures for reopening facilities, a non-profit recently conducted its first direct-mail fundraiser, and “a few clients are even putting printed newsletters back in the mail.” In all, his company has “probably quoted more direct-mail programs in the last three months than we have since the beginning of the year. It seems like it is resonating with people again — even a few who say they wouldn't have thought of using it six months ago.”

Another participant reports his clients regularly raise two challenges. One is “how to create that one-on-one interaction with their clients while remaining remote,” and the other is “reduced marketing budgets.” His answer to both is the high-ROI, targeted print promotion that advanced database analytics can deliver. He doubts clients will walk away from that ROI when face-to-face is back and marketing budgets are healthier.

Significantly, many we surveyed also discussed how they plan to create opportunity in the post-COVID world. Here's what they talked about most often:

Helping Clients Rebuild Through Deeper, Consultative Relations

The in-person events and activities that were lost during the pandemic and the print they require — direct mail, t-shirts, promotional products, invitations, signs, banners, etc. — will come back at least in part when it is over. But the opportunity is not in the rebound, according to our research group. It is in developing deep knowledge of their clients' businesses and using that knowledge to craft the custom programs they will need to rebuild and advance. Put another way, it's in advancing from a transactional relationship to a consultative, strategic relationship that consistently delivers ROI for the client.

Section 4 — Thinking Beyond COVID-19

Diversification

Printers have been expanding their product offerings for years. But for many, COVID-19 has amplified the importance of diversification. Commercial printers report that offering wide-format graphics and signs has been a difference maker, and printers across the industry say the same about fulfillment and kitting, particularly to support virtual meetings. The account one company shared with us:

“We started as a printer, added fulfillment services, added signage (we do a lot of our installations), and then purchased a company that specialized in forms, promo items and corporate apparel.

During COVID we started immediately selling masks. They were a hit. We developed a COVID Essential Business Kit. It was well received. We found marketing had fallen off the earth, but business forms (checks, labels, and the like) were still essential. And businesses started buying a lot of signage for hospitals and plants with many bodies. So we were outsourcing masks, selling physical distancing signs and markers and still selling forms.

Now things are ramping back up all over the place. Marketing is still the slowest thing to come back for us, but people are branding their environments, buying printing again, and believe it or not, buying apparel and promo items!!!

I am so glad we are not just a printer!”

The takeaways: “Diversification of product line is more important than ever,” and “Old fashioned ink-on-paper only companies are finding themselves irrelevant.”

E-Commerce Capabilities

Like diversification, the ability to conduct business remotely has made a big difference for many printing companies. Participants in our research have expanded online capabilities to product demonstration client education, marketing, consultative selling, and other critical areas. Their plan is to continue expanding so even when face-to-face restrictions are lifted, clients have the option of doing business online. One puts it bluntly: “E-commerce will be bigger than ever. If your company isn’t prepared to compete in e-commerce space, you will get left behind.”

Building on Trust Created During the Crisis

As noted in Section 2, some printers recognized early the seriousness of the pandemic and were agile enough to move into products such as custom sneeze guards, social-distancing signage, single-use takeout menus, and to-go containers. They “earned new clients and gained further trust with existing clients,” supported their communities, lived their values, and created goodwill. Now they plan to build on that goodwill. A compelling account:

“We began offering sales of disposable masks and heavily promoting COVID-related products, including PPE and yard signs for graduates and essential-worker support.

We have also been very active on social media with giveaways and posts that are supportive of the community without explicit advertising. We have promoted custom coloring and cookbooks for free download, donated many of these same books to local charities, donated a portion of a cash prize won from a Facebook contest to a local food bank, and in general have tried to promote generosity and community through our social media reach.

These are values we have demonstrated regularly, pre-COVID, and felt them to be especially important to highlight in this moment, as well.”

Section 4 — Thinking Beyond COVID-19

M&A

One participant in our research speaks for many when he comments, “The weakest competitors will close. Other competitors will be for sale at below pre-COVID market values.” Of course, the question is how many of the survivors, badly weakened by the recession, will be attractive acquisitions. Section 7 in the Panel version of the report provides a closer look at the pluses and minuses of post-recession M&A.

Additional Comments

There were many other comments about post-COVID opportunities. Opinions vary widely, reflecting the diversity of our research group and the printing industry they represent. A sample of what they see:

- “Virtual selling, social media promotion, opening up to other geographic markets with virtual selling.”
- “The opportunity is in selling advice and expertise. How you can make the client money? Learn about their businesses. Use their website, social media platforms, and forums they participate in. Bring them ideas. It’s particularly important now; everyone needs more business. And everyone will need more business during the recovery.”
- “During the pandemic we have moved into creating personalized floor graphics for our clients. The graphics include the client’s logo and a QR code that registers their customers in the company’s rewards program. We created personalized sales kits, creating the box, customizing the printing on the box, providing the SWAG, and fulfilling. And we created personalized direct mail campaigns. We see direct mail, including Every Door Direct Mail (EDDM), as an ongoing opportunity because electronic communication is saturated. Understanding the client’s target audience and showing how they can reach the audience is the key to it all. If the client doesn’t have good data on their target, we will create it. We make it easy for them. Tell us your target and message and we’ll do the rest.”
- “More digital books — speed to the marketplace is critical.”
- “Opportunity in learning how to create value for clients who want to do business remotely or whose workforces are remote.”
- “Given the changes to people’s dining habits, we believe that retail food packaging will continue to grow with the closing of many restaurants and more people eating at home.”
- “Where will the opportunity be? This is the million-dollar question. The challenge is determining which fundamental and/or structural business behaviors won’t go back to pre-pandemic ways. For instance, if business travel and tradeshows don’t return as before, there will be opportunity to continue supporting tradeshows in a box and virtual meetings. Unfortunately, they may not generate the same revenue as before.”
- “Increased individual shipping and mailing services. Increased digitization of records.”
- “Industries related to the home or individual rest and relaxation such as RV’s, boats, and exercise equipment. Durable goods markets will continue to see an upswing. The restaurant industry will seek creative ways to make customers feel safe.”
- “More domestic production.”
- “Design, complex display fabrication, interior decor, and specialty graphics.”

Section 4 — Thinking Beyond COVID-19

- “I actually see a decrease in opportunities due to a variety of reasons. COVID-19 is one and the new rules being implemented by the postal service. In addition, I do not see the economy rebounding and one of the first things to be hit will be advertising expenditures. This drop in advertising will impact print faster and harder than any other form of advertising.”
- “Currently, there are very few opportunities for apparel. Since more people are working from home there is less demand for corporate branded clothing. The flip side is more events will be happening because of pent-up demand, creating more opportunities to print things like concert t-shirts,”
- “Our opportunity will be in the marketing and consulting services we can provide across the different products we offer. Also, we are looking at in-house print-and-mail facilities. We can help them if they are not letting people back in the office.”
- “I see a great deal of risk for our kind of printing. The opportunity will be in reducing risk for other companies by helping them avoid expansion — specifically, in providing services to less committed printing companies that cannot afford new equipment or the staff on hand for the inevitably jagged restart of work. For those companies it is much less risk to outsource work to someone who already has the equipment and personnel on hand. Additionally, I think in-house print shops will be reduced significantly, printing companies will reduce staff and outsource, and print concierge buyers will seek stable partners.”
- “We expect more consultative or training-related opportunities. Our primary business is providing print and digital media to a very specific set of non-profits, their leaders, and their supporters. Because we have such a variety of content across all of our platforms, we were in a position to pivot some of those resources into previously uncharted waters. Our feedback loop has provided strong data showing our clients needed training and consulting in light of limited access to in-person learning during the pandemic. We have diverted content creation in this direction in order to fill a need that our constituents are seeking. We are simply using our available resources to respond to the needs in front of us.”
- “We are located in a vacation area where clubs, summer-stock theater, small music venues, art-and-craft events, and a myriad of other volunteer run events occur in normal times. All of that has been cancelled in 2020. To the extent that will resume in 2021 we will have expanded opportunity to grow advertising revenue to support those local events and activities. In the meantime, we have added some significant new business to our commercial printing and mailing operations during the pandemic. We expect that growth opportunity to continue especially when our sales team can resume making personal calls. In the absence of being able to safely gather publicly and communicate with groups of constituents face to face the need for printed communication will only increase and mail delivery will remain an important tool. We are positioned to serve those needs on demand.”

Section 5 — The Economy

Second Economic Relief Package

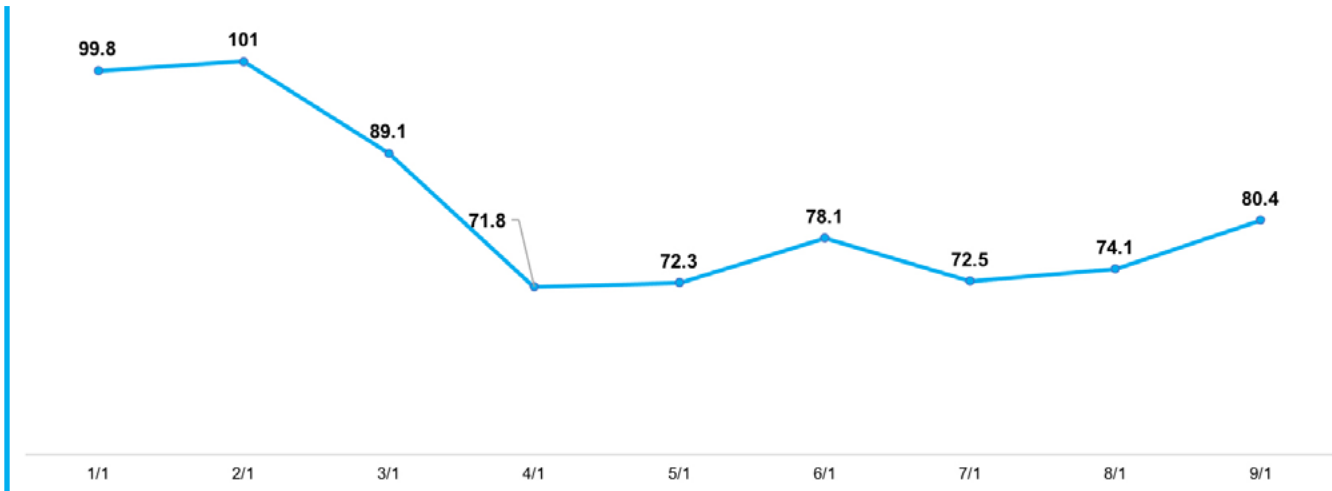
As of October 9, White House and Democratic negotiators are yet to come to a deal on a second relief bill that would surely aid economic recovery. The original plan was to reach a deal before the elections, but it seems as if that is no longer on the table after recent comments by President Trump where he urged Republican leadership to halt negotiations until after November 3rd. Ultimately, if an agreement cannot be reached, there are still a few options on the table. Smaller targeted packages can be passed that aid areas in need of help. This could include another round of funding similar to the Paycheck Protection Program that helped boost small business, another round of \$1200 stimulus payments to households, or more aid to schools and hospitals. Any or all of these types of spending can be approved by Congress, but it wouldn't be surprising to see some sort of Executive Action taken by President Trump to get some funding through. He has already done this once by extending additional unemployment payments which dropped from \$600 to \$300.

Democrats are seeking approximately \$2.4 trillion worth of aid in the second bill while Republicans think that \$1.6 trillion is closer to an appropriate figure. The amount of funding will be the most contentious issue moving forward but deciding the ways in which the money is allocated will also prove to be difficult. Federal Reserve Chairman Jerome Powell recently commented on the situation and spoke about the urgency to come to a deal. He believes that the first round of stimulus helped to suppress some of recessionary dynamics that we typically see. Without another round, these can return as businesses and households may cut back on spending. This would result in an economic recovery that is slower than what was originally anticipated. In Volume 2 of this research, we discussed the effects of PPP on printer employment. It appeared to assist in the retention of employees for the time being but since the program ended and the firms ran out of these funds, the lack of a second round could result in additional comments like the one that we received from one of our respondents, "PPP is used up, had to cut staff hours again."

The hope for a second round has also helped to boost consumer confidence according to the latest index reading released by the University of Michigan. The consumer confidence index has risen over the past three months as more people are hopeful that the economy is heading in the right direction. It will be interesting to see how this sentiment evolves as we move into election season as a win by one side or the other can cause some to lose or gain confidence as we head into 2021. One thing that is certain however is that another round of stimulus funding would boost this index even more and would also buy the American economy more time to remain semi-idle until a vaccine is developed and some sense of normalcy is returned.

Section 5 – The Economy

Consumer Sentiment

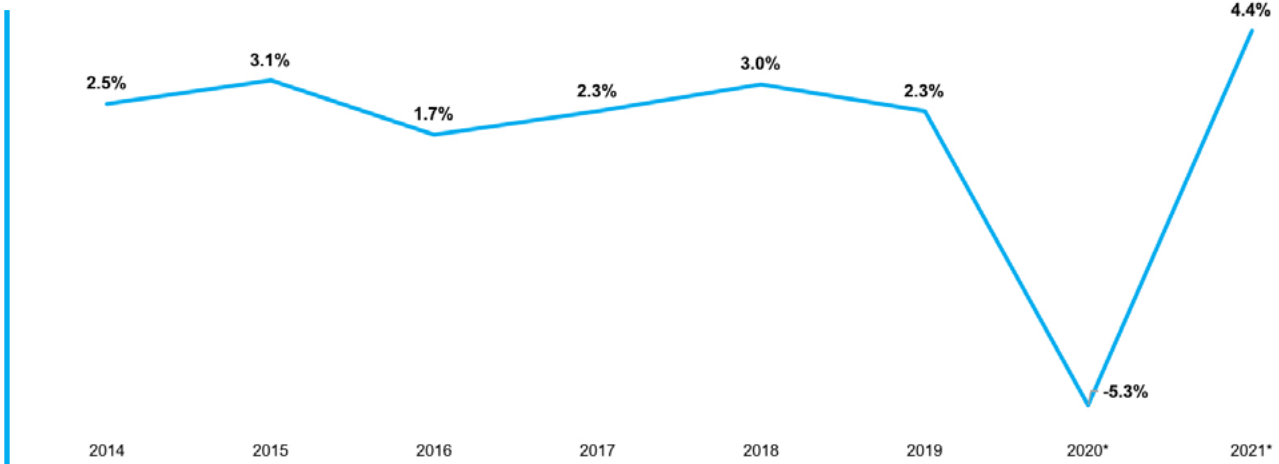


University of Michigan – Index of Consumer Sentiment

GDP Outlook

After dealing with slow and steady GDP growth for about a decade, it now seems that we will finally stray from what became the norm. Since the onset of COVID-19, it was understood that we would most likely see a negative growth rate in 2020, however, we still do not know how much the economy will shrink in total. Analysts that participated in The Wall Street Journal’s monthly Economic Forecasting Survey believe that we will end 2020 with a -5.3% growth rate. Although this estimate is quite grim compared to what we have seen since the Great Recession, it is understood that robust growth will follow. Looking forward, these same analysts believe that 2021 will end with the highest growth rate seen in the 21st century, at around 4.4%.

Annual GDP



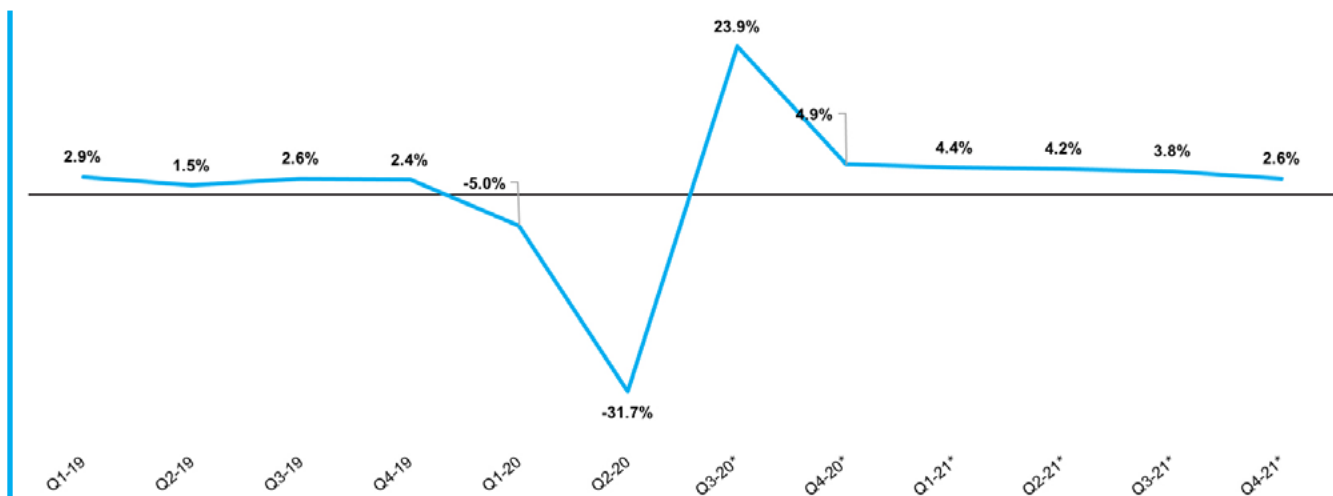
WSJ Economic Forecasting Survey - * indicates projection

Section 5 – The Economy

2021 projections tell us a few things. The first is that these analysts believe that a modern economy can quickly return to growth after facing a severe recession. The second is that a vaccine will eliminate most of the concerns that have resulted from COVID-19. Moving past 2021, it is likely that we will see a few more years of solid growth (est. 3.4% in 2022) before returning to the slow, steady, and long-lasting numbers seen over the past decade.

When GDP is broken down on a quarterly basis, the outlook is very similar. After a brutal decline in the second quarter (-31.7%), sharp growth is expected when third quarter (23.9%) numbers are officially released. Looking at the fourth quarter and into 2021, it appears that growth will slow, but will remain at levels that are higher than what we have seen throughout our record-breaking expansionary period. Moving into 2022, these numbers will likely continue to flatten out to a point where we once again see slow and steady growth (2-3%) that will last until the next recession.

Quarterly GDP



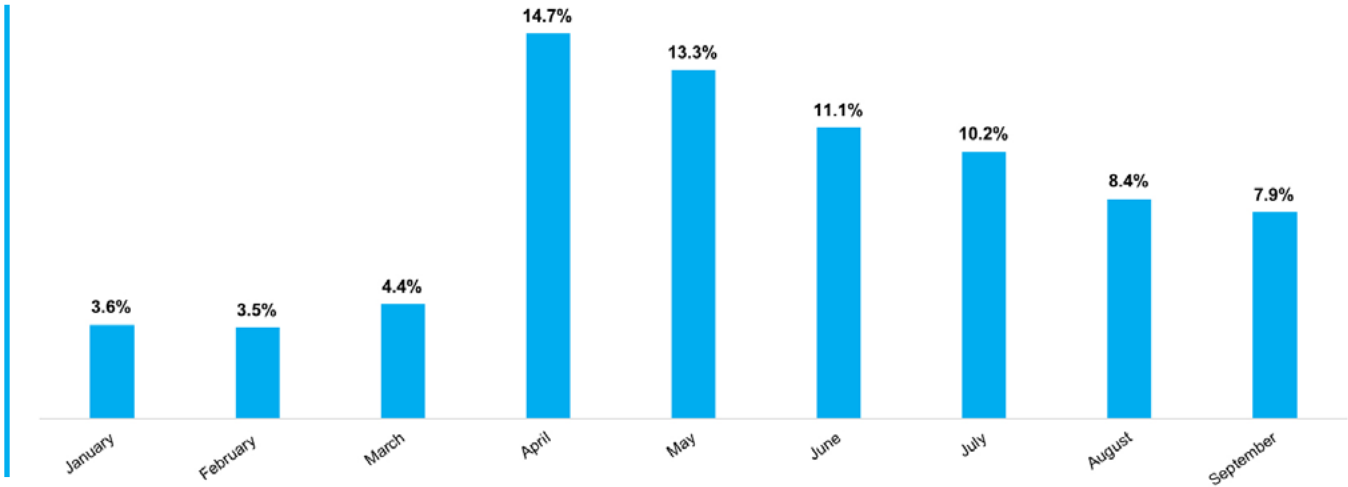
WSJ Economic Forecasting Survey – * indicates projection

Unemployment

The latest Jobs Report released by the Bureau of Labor Statistics shows that the unemployment rate has steadily improved once again in September as it fell to 7.9%. This marks the fifth straight month that the number has fallen after it reached a high of 14.7% in April. The drop in the rate between August and September has been the smallest since it began trending downward as around 661,000 jobs were added back last month. These job gains appear to be slowing a bit due to the fact that some layoffs that were initially thought to be temporary are now becoming permanent. Although jobs should continue to be added every month as the economy continues to lift itself out of the basement, expectations should be tempered slightly. Everybody will not have jobs to return to and it will take years for them to return to pre-COVID unemployment levels, if they ever do.

Section 5 – The Economy

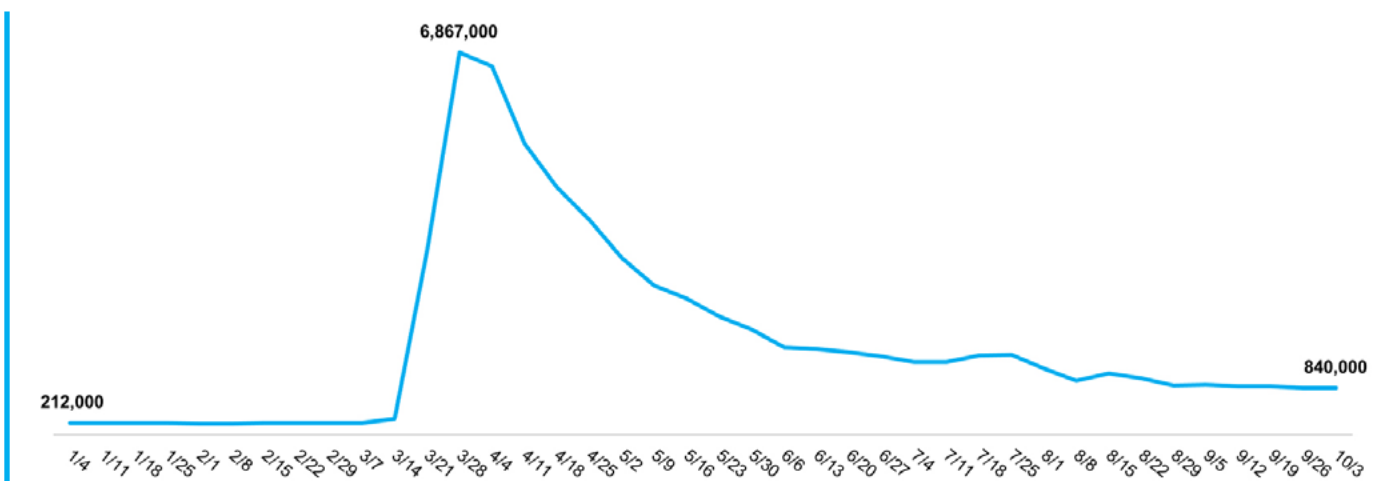
U.S. Unemployment Rate



Bureau of Labor Statistics

Another sign of improvement in the labor market comes from the initial unemployment numbers. Since reaching a record-breaking 7 million in the middle of March, the number of those applying for unemployment benefits for the first time has steadily fallen to the point that it now has been under 1 million for three straight weeks. It appears that this number has begun to flat-line as initial claims hover at a rate nearly four times greater than what we were seeing pre-pandemic.

Initial Unemployment Claims

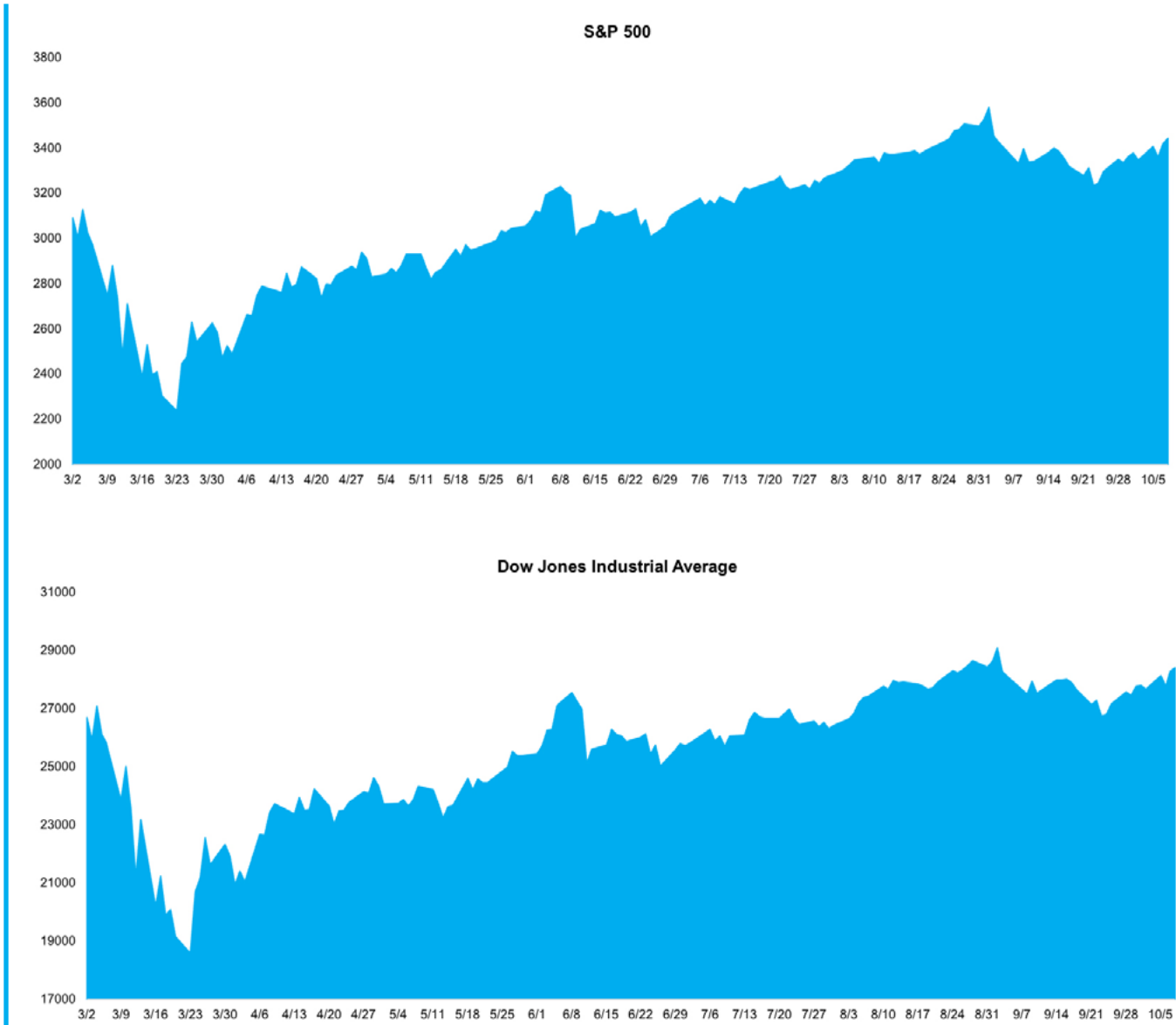


Federal Reserve of St. Louis

Section 5 – The Economy

Stocks

When trying to understand the current state of the economy, some often refer to the large stock indexes like the S&P 500, Dow, or Nasdaq to show what kind of progress is being made. This is a mistake as the disconnect between the stock market and the health of the economy has been emphasized throughout this pandemic. The charts below show how the S&P 500 and the Dow Jones have moved since March at the onset of COVID-19.



Federal Reserve of St. Louis

Section 5 — The Economy

It is easy to see that there was a dip immediately following the first COVID-related shutdowns, but since then, there has been a steady rise to the point where both indexes are at higher levels than they were in our previously COVID-free world. Of course, we know that our economy hasn't trended the same way and that we are still a long way off from pre-COVID levels according to economic indicators and business trends.

Although these stock indexes do not accurately depict the current state of the economy, they can potentially give some insight and serve as a leading indicator of sorts. If these charts tell us anything, it is that investor sentiment has not been shaken. Those with large sums of money wrapped up in the stock market believe that recovery is guaranteed for many of the firms that make up these indexes.

Recently, there have been mixed messages as there have been quick drops and many seem to be more than willing to sell tech stocks. Although September has been a volatile month for stocks, both indexes remain above COVID levels. Some analysts warn that there is a possibility that an investment push can cause the market to overheat as some potential gains may never be realized. That of course has resulted in some of the recent sell-offs. If anything, the stock market seems to do a relatively good job of leveling itself out as time goes on and as we move forward, looking at these numbers as a proxy for investor sentiment may give us a good idea of how those with big pockets see the road to recovery.

Other Economic News:

- Durable goods orders continue to rise as they have increased for the fourth straight month. These orders grew by 0.4% in August after record-breaking rises of 15.0%, 7.7% and 11.7% for the months of May-June respectively. Although growth has slowed, an increase in these types of purchases is typically a good leading indicator for wide-ranging economic growth.
- COVID-19 has now taken over 1 million lives throughout the world as companies swiftly work to create a vaccine that can be quickly distributed. Some firms have moved into phase 3 trials of vaccine process which is one step away from approval. Economic recovery will be thrust into full force once a vaccine is developed and is able to be distributed quickly and at a wide scale.
- Another leading indicator of economic activity is the price of homes. According to the Case-Shiller Index, home prices rose by 4.8% in July as demand increased and interest rates remained very low. This follows a rise of 4.3% in June.
- The latest comments from the Federal Reserve indicate that interest rates will remain near zero through at least 2023. This will certainly help to boost spending and aid the recovery process. This could change if inflationary expectations change but that is unlikely as it is estimated that this number will remain at or below the Fed's 2% target level.

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WHO WE ARE

About PRINTING United Alliance

PRINTING United Alliance is the new entity borne of the merger between Specialty Graphic Imaging Association (SGIA) and Printing Industries of America (PIA). In a milestone in the printing industry, SGIA and PIA officially combined in 2020 to create the largest, most comprehensive member-based printing and graphic arts association in the United States.

Members now have unparalleled access to preeminent education, training, workshops, events, research, government and legislative representation, safety and environmental sustainability guidance, as well as resources from the leading media company in the industry – NAPCO Media.

PRINTING United Alliance produces the PRINTING United Expo and Conference, the most influential days in printing. The expansive display of technology and supplies, education, programming, and services are showcased to the industry at large, and represents all market segments in one easily accessed place. In 2020, PRINTING United introduced the PRINTING United Digital Experience. For more information, visit PRINTINGUnited.com.