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**PRINTING INDUSTRY
PERFORMANCE & INSIGHTS**

Providing regional printing association members
a printing industry outlook view and actionable knowledge.

The Printing Industry:

*A Big Picture of Revenue Trends, Business Outlook,
Other Knowledge, and Actionable Thoughts*

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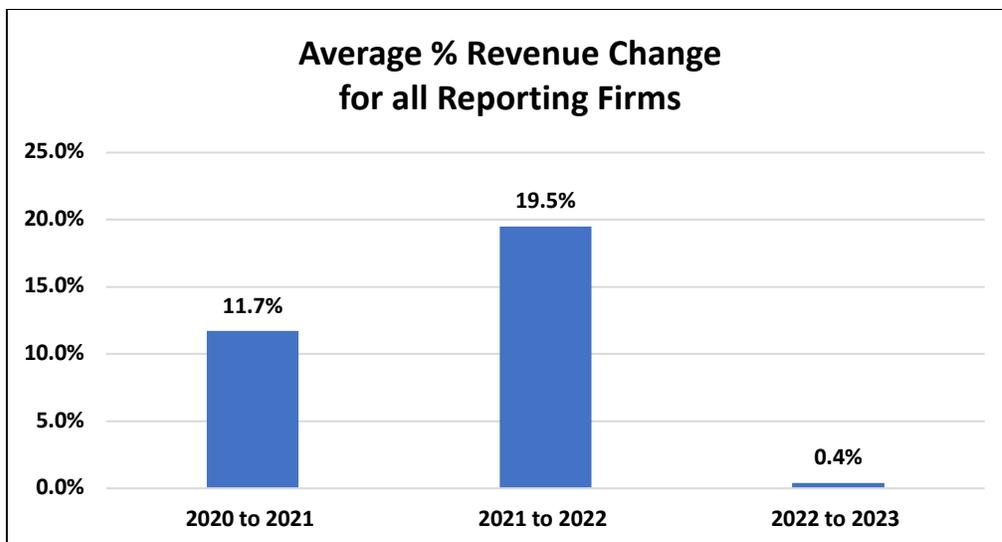
Introduction

Below we provide a big-picture view of the printing industry drawn from our October 2023 “*Printing Industry Performance and Insights*” survey. We appreciate the 15 regional printing associations that sponsor and support our research. We list those associations at the end of the report.

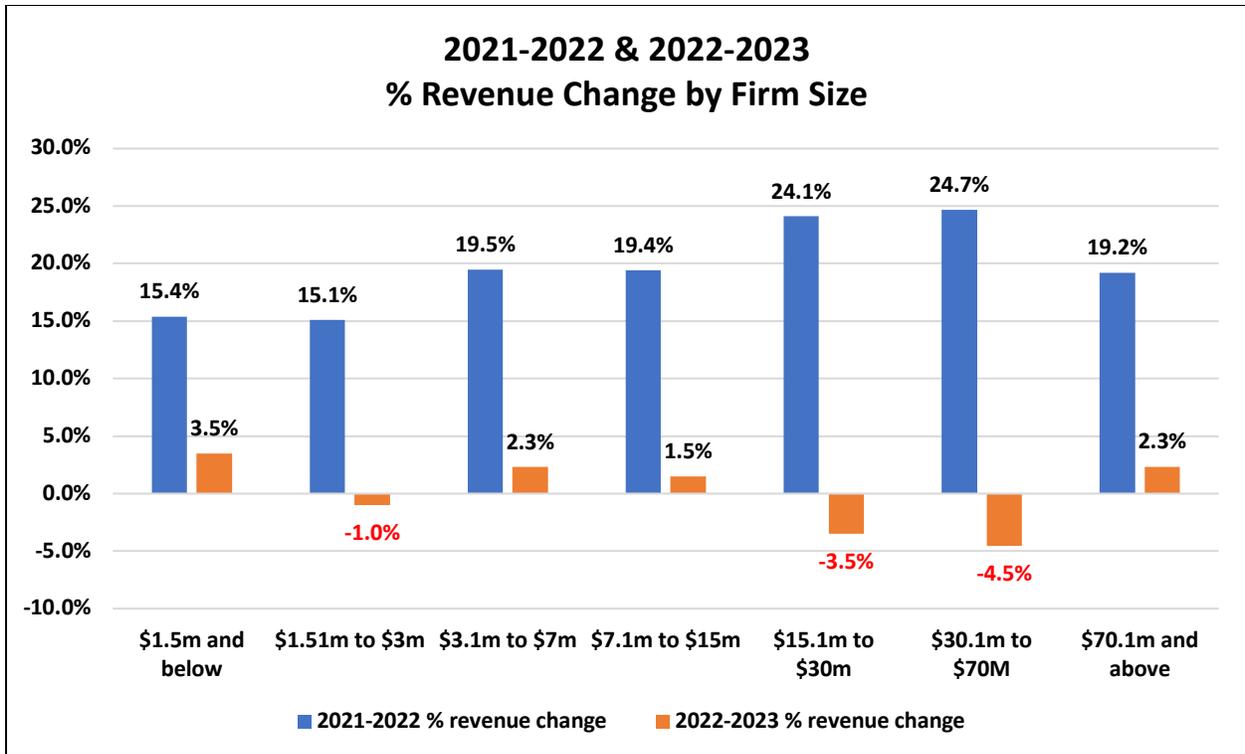
Here, we share results from our October 2023 study that provide insights related to revenue, business outlook, customers purchasing more or less printed products, and customer turnover. We close with thoughts on how to proactively address this environment. As comparison tools, we provide averages for employees per \$1mm in revenue and cash reserve information from across our industry.

Revenue Growth or Decline

In our October 2023 survey, we asked, “What was your 2022 revenue?” and “What is your expected 2023 revenue?” We asked similar questions in previous studies. The graph below shows the average percentage revenue change for all firms in our recent surveys. The graph shows strong revenue growth for 2020 to 2021 and for 2021 to 2022. However, revenue growth for 2022 to 2023 looks flat, which is dramatically different from the two previous years.

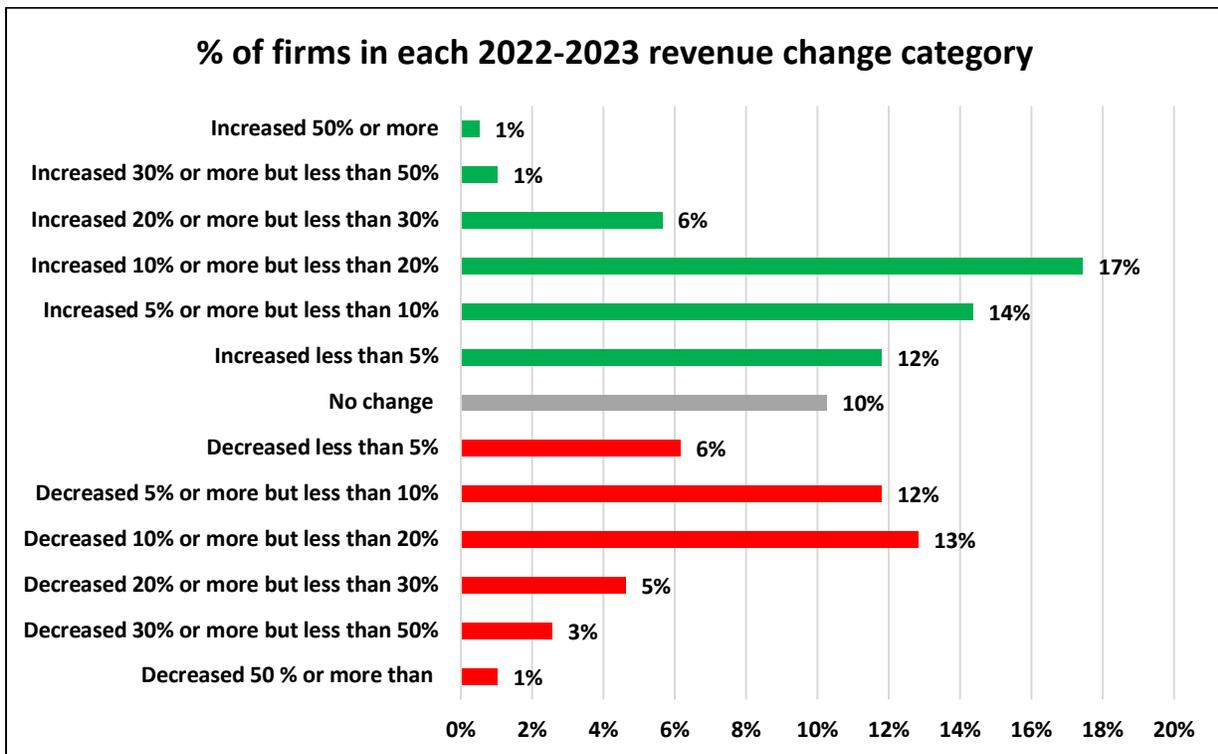
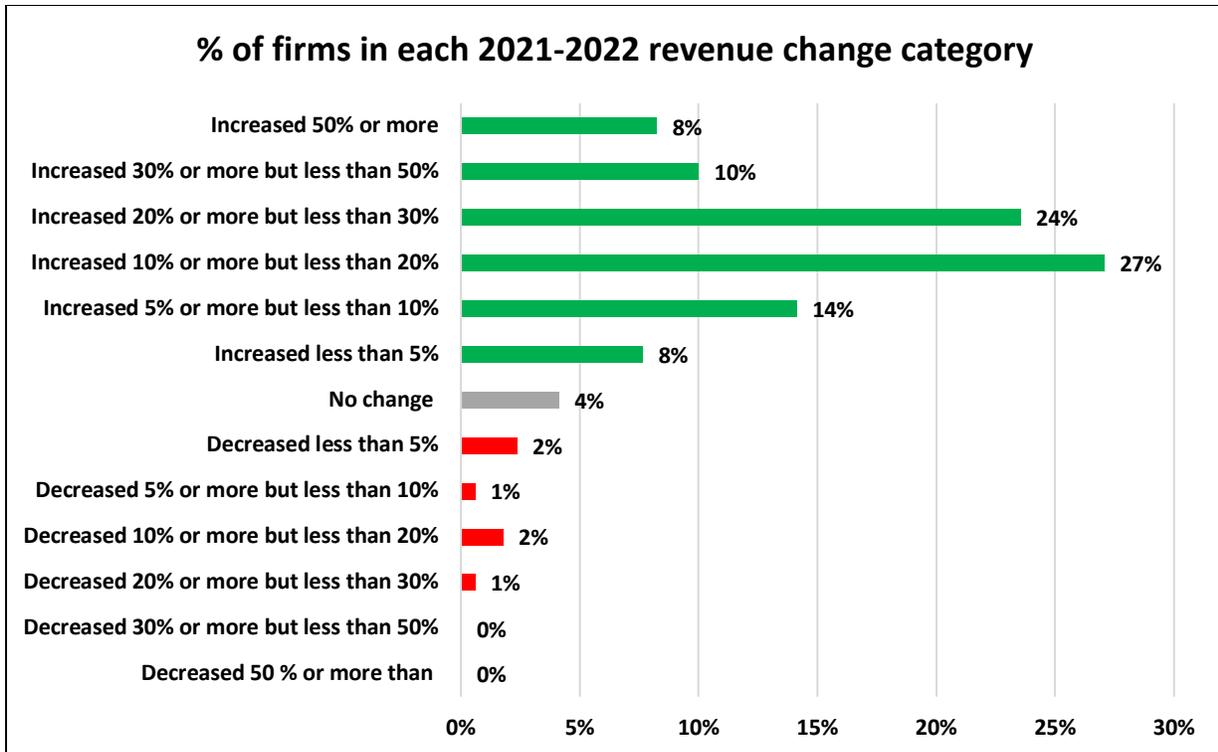


To explore this deeper, we looked at growth by firm revenue size. The next figure shows the average percentage revenue change by firm size for 2021 to 2022 (drawn from our October 2022 study) and for 2022 to 2023 (drawn from our most recent study). For the percentage revenue change from 2021 to 2022, every firm size showed significant revenue growth. However, from 2022 to 2023, we see slower growth than in the previous two years. Three of the seven firm-size groups, on average, see a revenue contraction, although minor.



We next looked at the percentage of firms in our surveys that fell into 13 revenue change categories, such as “increased 20% or more but less than 30%.” The first graph below shows the percentage of 170 printing firms in each revenue 2021-2022 change category from our 2022 survey. The second graph shows the percentage of 195 printing firms in each revenue 2022-2023 change category from our 2023 survey. Our sample sizes (170 for 2022 and 195 for 2023) are good and represent printing firms from across the nation and from a wide range of firm sizes. The green bars represent revenue growth, and the red bars represent revenue decline.

From the graphs, you will see that compared to our 2022 survey, a larger proportion of the firms in our 2023 survey showed revenue decline (compare the red bars in the 2022 graph to those in the 2023 graph). Indeed 39% of the respondents in our 2023 survey reported an expected some 2023 revenue decline. Twenty-one percent of the respondents in our 2023 survey reported an expected revenue decline of more than 10%. That indicates a significant number of printing firms expect a 2023 revenue decline.



The second graph (2022-2023) indicates that a bimodal distribution has emerged in the printing industry. By “bimodal” we mean that two separate groups clearly appear; firms maintaining revenue growth, and those who are contracting in revenue. Why is this “bifurcation” (splitting into different revenue growth/contraction groups) present in our industry? There is a plethora of possible reasons for revenue decline, such as the loss of a major customer, local economic issues, the lack of an effective mission, and others.

One difference we see in printing companies is that some have a systematic approach to identify potential new customer prospects, and other printing firms do not. You might set goals for each salesperson to identify potential new customers each month. Or you might assign that task to someone in your administrative staff and hand potential prospects to salespeople. After potential prospects are identified, consider monitoring each salesperson’s progress in connecting with new prospects and developing relationships. We see printing firms that depend on current customers too much for revenue growth. Proactively working to expand your circle of customers will reduce the risk of experiencing revenue decline from losing a customer.

Our findings prompted two questions: 1) Do these numbers accurately reflect what’s recently happened in our industry? 2) If so, why are we seeing these dramatic declines in revenue growth relative to the previous two years?

To address these questions, we asked regional printing association leaders to share their thoughts.

Regarding the first question, association leaders shared that our graphs are consistent with what they are hearing from printing firms – in general, printing firm revenue grew substantially in 2021 and 2022, but growth stalled in 2023.

Regarding the second question, association leaders provided the following potential reasons for flat 2023 revenue growth after substantial 2021 and 2022 revenue growth.

- Increasing paper prices may have caused annual revenue growth differences. As paper prices increased in 2021 and 2022, printing firms raised their prices, which in turn increased their revenue. When paper prices stabilized in 2023, printing firms stopped increasing prices.

- In the 2021 and 2022 paper shortages, customers had to find a printing firm that had paper. This may have reduced pricing competition. With paper available in 2023, the printing market returned to its normal competitive environment because everyone is back on an equal playing field. Therefore, printing firms are lowering prices to win work, which reduces revenue.
- COVID recovery may have prompted the 2021 and 2022 dramatic revenue growth. Customers may not have procured as many products during COVID, and they re-built their inventories in 2021 and 2022, which might reflect “pent-up demand.” Then, in 2023, things returned to normal.
- There is very little ballot printing and election-related direct mail in 2023.
- Given the international supply chain problems during COVID, during 2021 and 2022 customers who had previously imported printed products may have shifted away from overseas printing firms. Those customers may have moved back to importing printed products in 2023.
- In 2021 and 2022, some printing firms may have received PPP and ERC payments and considered them as revenue. For the most part, PPP and ERC payments are not available in 2023.
- Although a national recession has not surfaced, some regions are experiencing challenging economic times, which may have affected 2023 revenue growth.
- Increasing USPS rate may have reduced 2023 mail-related printing.
- 2023 revenue growth may better reflect our industry’s normal state than our 2021 and 2022 numbers.

We cannot point to one of the factors above and say that was THE reason for 2023’s softening of revenue growth relative to 2021 and 2022. The factors mentioned above may have worked together to soften 2023 revenue growth. Also, not every printing firm is affected by all the factors in the same way.

We analyzed the average 2022-2023 percentage revenue in five United States geographic regions. However, the results appeared a bit distorted, which may have resulted from low survey participation in some regions. All that said, our data “suggests” that on average, printing firm 2023 revenue was flat in the West and North-Central regions, grew in the Southeast and South-Central regions, and “may” have contracted a bit in the Northeast region.

As the printing industry is very diversified, much more than it was 10-15 years ago, we strive to identify strategic groups in our studies. A strategic group consists of companies with similar competitive approaches and market positions. For example, one printing industry strategic group may focus on providing general commercial printed products¹ by applying digital and sheetfed presses. While another printing industry strategic group may provide labels applying sheetfed presses or flexo. As different clusters of printing firms are represented in our surveys, we typically find different strategic groups in each of our studies. The table below provides descriptions of the strategic groups found in this study, the number of firms represented in that strategic group, and their average expected 2023 revenue growth.

The first two strategic groups, which reflect firms focused on general commercial printing, basically show flat 2023 revenue growth. However, we found the revenue growth numbers interesting for the next three strategic groups. The third strategic group represents firms with a focus on providing complementary services, such as promotional products, fulfillment, consulting, apparel, or marketing, to name a few possibilities. This strategic group showed a slight decline in 2023 revenue. Although the average expected decline is slight, and it's from a small sample size, this is the first negative finding (related to topics such as business outlook, performance, or growth) that we've seen for printing firms focusing on providing complementary services.

As we see the label segment of our industry as strong, the average expected 2023 revenue decline among the label printing firms in our survey surprised us. Although our label firm sample size is small, and our findings may not reflect the entire label printing segment, these numbers indicate that some label firms are not growing; some are declining. Indeed, more than half of the 14 label firms in our sample projected a 2023 revenue decline. An association leader shared that multiple label printing firms were experiencing a "bullwhip" effect. During Covid, several label customers loaded up on label inventories, and recently those customers reduced orders to work through their inventory.

¹ General commercial printing includes large variety of products, such as posters, books, magazines, newsletters, direct mail, envelopes, brochures, catalogues, and much more.

The strategic group with a significant position in wide format showed a significant average 2023 revenue growth. As for the two strategic groups discussed just above, the sample size for this group was small. However, the size of their expected 2023 growth caught our attention.

Strategic Group #	Strategic Group Description	Number of Firms	2022-2023 % Revenue Change
1	General commercial, digital, and sheetfed, but more or all in sheetfed	66	1.91%
2	General commercial, digital, and sheetfed, but more or all in digital	45	-0.22%
3	General commercial, digital, and sheetfed, with a focus on providing complementary services	15	-1.93%
4	General commercial with a significant wide format position	20	7.98%
5	Label printing firms, some focus on general packaging, others on specialized packaging (flexo)	14	-8.92%

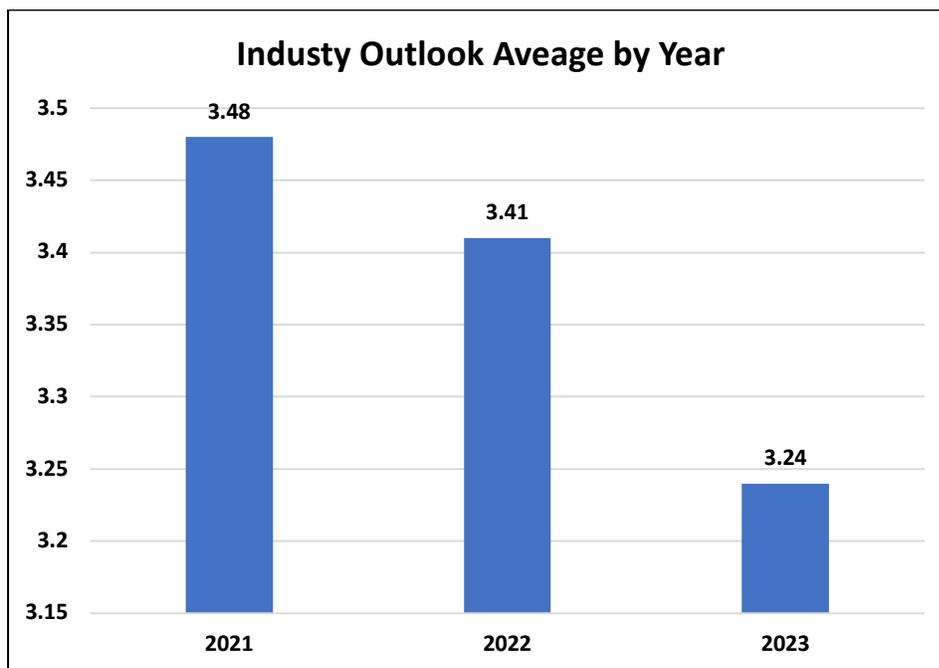
Here's one final minor point from our revenue change analysis. In the past, we wondered if our surveys were mostly completed by leaders of successful firms, which may have tainted our industry outlook. Given the number of firms in our recent survey showing revenue decline, we have more confidence that we are seeing a non-biased view of our industry.

Business Outlook

We explore printing firm leaders' business outlook in our October studies. We ask a series of questions that we interpret as a one-to-five scale: (1) Very pessimistic;

(3) Neutral; (5) Very optimistic). One hundred and ninety printing firm leaders completed the business outlook questions in 2021, 193 completed them in 2022, and 199 completed them in 2023. The graph below shows the average outlook for all respondents for 2021, 2022, and 2023. The average for each of the three years shown in the graph below is over three, which is between “neutral” and “very optimistic,” the positive outlook side of the scale. Averages under three would indicate a pessimistic outlook. So, our findings indicate that in general printing company leaders’ outlook is not pessimistic.

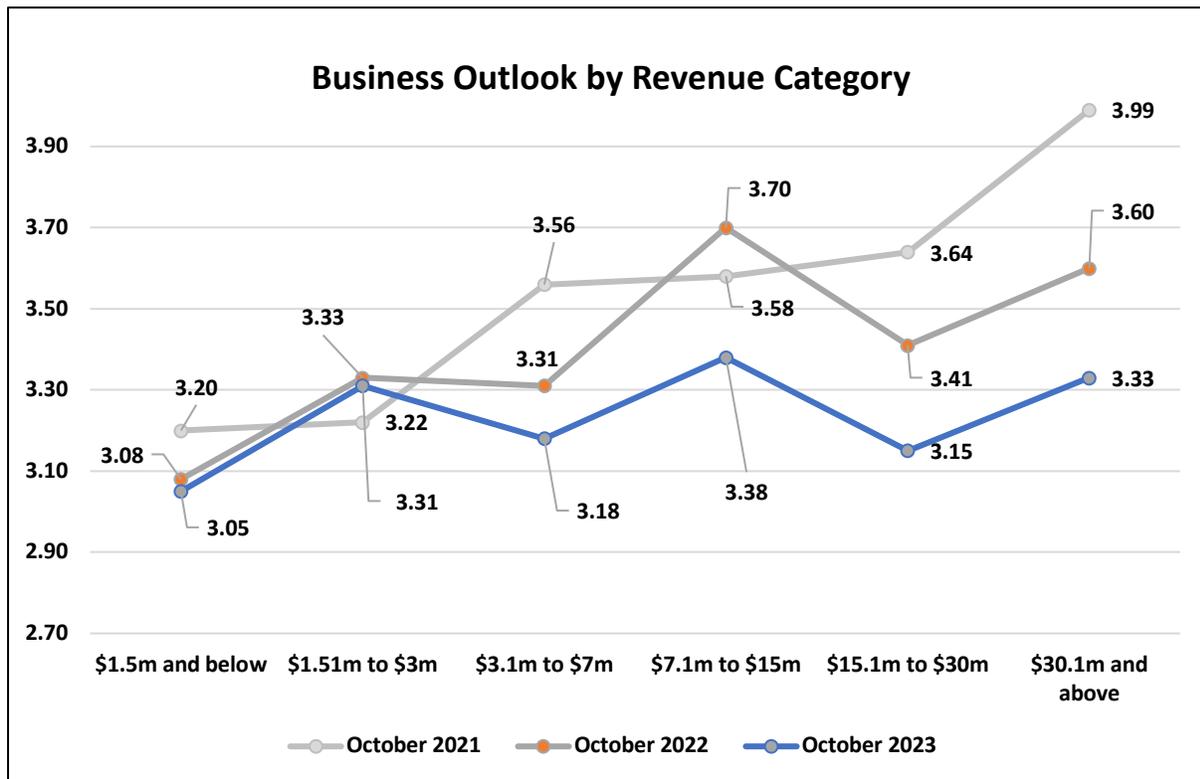
However, the graph below shows a declining average outlook over the last two years. We were a bit surprised to see this decline, especially in the context of the COVID and paper supply issues of 2021 and 2022. This declining outlook may synchronize with the flat revenue growth numbers we present above. Also, our declining outlook findings may have resulted from macroeconomic issues, such as increasing interest rates, regional recession concerns, and tightening lending conditions.



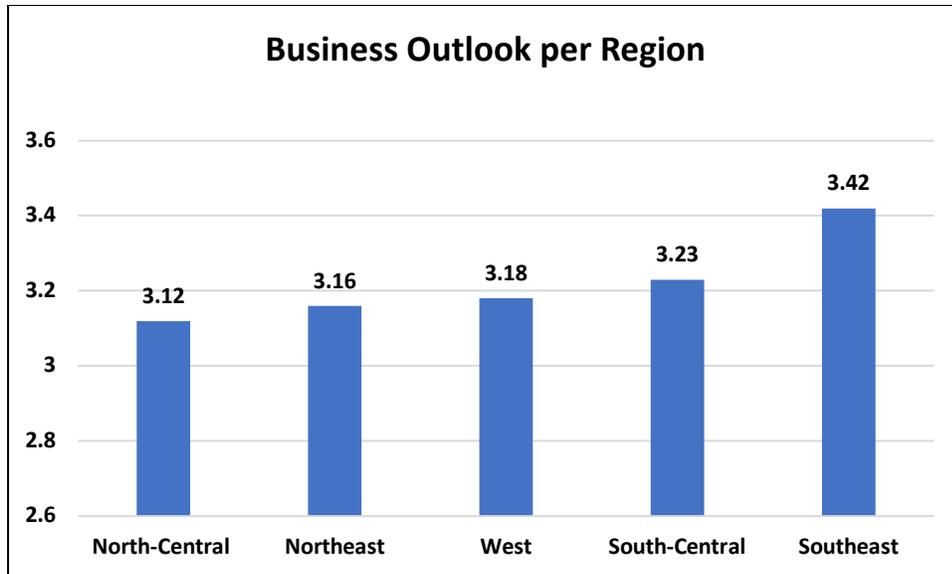
We provide industry outlook averages per revenue category sizes in the chart below for 2021, 2022, and 2023. The light grey line indicates October 2021 averages, the dark grey line indicates October 2022 averages, and the blue line

indicates October 2023 averages. In 2021 and 2022 we saw a slight increase in business outlook as firm revenue size increased. In other words, larger printing firms tended to have a bit more positive outlook.

However, the 2023 line is relatively flat, indicating the higher outlook trend we saw in larger firms over the previous two years drifted away in 2023. The 2023 business outlook averages for all six of the revenue categories were lower than those found in our 2022 study.



We provide the average business outlook response per region from our October 2023 data in the chart below. Recall that we did not have enough confidence in our average percentage revenue change numbers per region to share the details. However, in general, the business outlook regional averages coincide with our regional revenue change numbers. The Southeast and South-Central regions appear to have the highest revenue growth averages and the highest outlook averages.



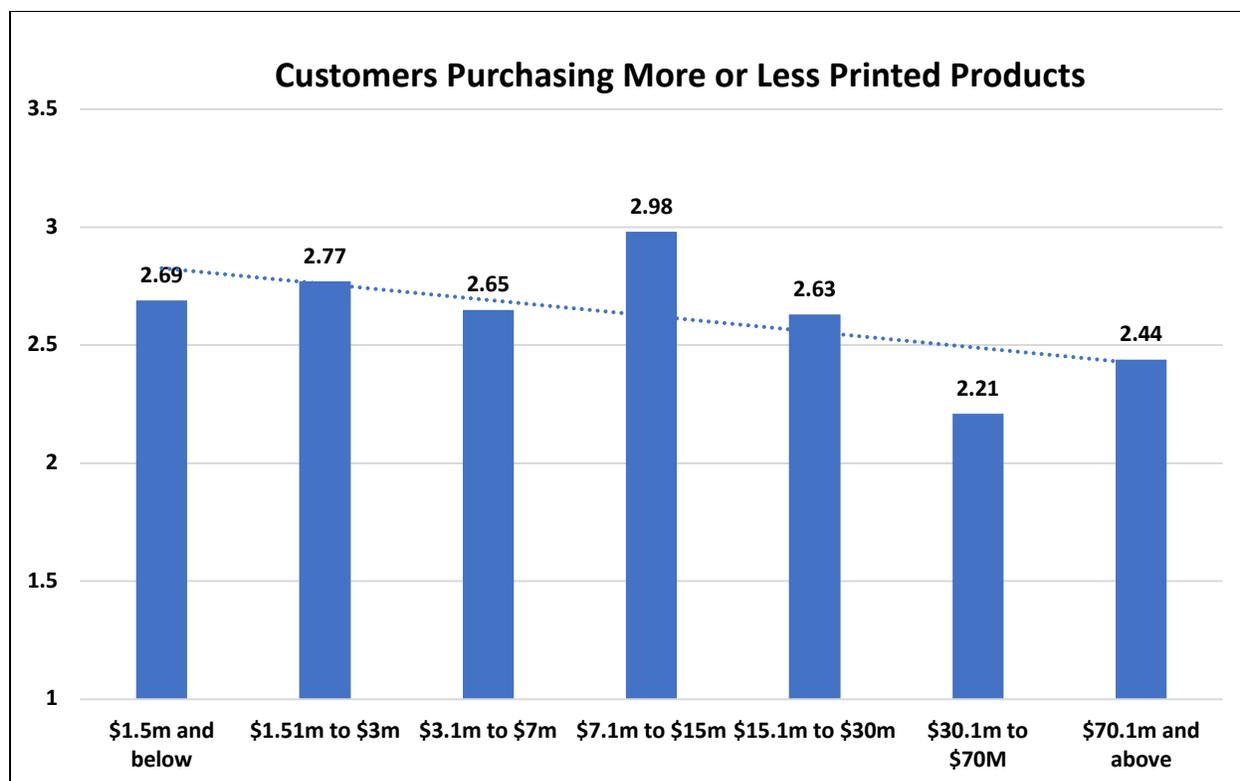
The table below shows the average business outlook per strategic group. The strategic group average business outlook numbers coincide with the strategic group revenue change percentages shown above. Strategic group four – general commercial with a significant wide format position – shows the highest revenue growth average and the highest business outlook. Strategic group five – label printing firms, some focus on general packaging, others on specialized packaging (flexo) – show revenue decline and the lowest business outlook. As stated above, we are not confident that our label strategic group revenue and business outlook strongly reflect that industry segment. However, this may open our eyes to see that a few label firms are challenged.

Strategic Group #	Strategic Group Description	Number of Firms	Business Outlook
1	General commercial, digital, and sheetfed, but more or all in sheetfed	66	3.13
2	General commercial, digital, and sheetfed, but more or all in digital	45	3.33
3	General commercial, digital, and sheetfed, with a focus on providing complementary services	15	3.25
4	General commercial with a significant wide format position	20	3.50
5	Label printing firms, some focus on general packaging, others on specialized packaging (flexo)	14	2.96

Customers Purchasing More or Less Printed Products

We asked, “Are your company’s customers purchasing more or less printed products than last year?” Respondents answered on a five-point scale with these options: (1) Several customers purchase less printed products than last year; (3) No change; or (5) Several customers purchase more printed products than last year. The average response from 196 participants was 2.77, which is slightly below “no change” and on the “purchase less” side of the scale.

We provide a graph below with the average response for this question by firm revenue size. Although there is not a solid trend in the graph, we see a slight movement to lower averages among larger firms.



Customer Turnover

To explore “customer turnover,” we asked survey respondents, “In 2023, to what extent has your company lost existing customers or gained new customers?” Respondents answered on a five-point scale with these options: (1) Our company has lost multiple customers and not gained any customers; (3) No change; or (5) Our company has gained multiple customers and not lost any customers. The average response was 3.37, which is on the positive side of the scale, indicating gaining more customers than those lost. We analyzed the numbers from revenue size and strategic group perspectives, and we didn’t see any trends. Although the average response for our customer turnover question was good, about 15% of our participants responded with a “1” or a “2,” indicating they were losing and not gaining customers.

Hopefully, the proportion of companies in our industry who are losing more customers than they are gaining will not grow. However, you might strategically assess this on a periodical basis.

- Consider keeping a list of customers you’ve lost and those you have gained.

- For each customer lost, without bias, record why your firm lost that customer, look for trends, and consider strategic changes to reduce customers lost or the possibility of losing customers.
- Considering customers gained may open eyes to potential target markets.
- Through this process, you might set goals for how many customers you want to add, assess your firm's performance for that goal, and adjust accordingly.

How to Proactively Address this Environment

From our revenue change and business outlook analysis, we see a printing industry environment that looks a bit more challenging now than it was a year ago. Printing company leaders, how should you respond to the current environment? Here are some thoughts.

- Work with your team to determine your mission – who are our target customer groups and what value do we provide them? This may require consulting with customers and asking, “How can we help you?”
- Determine a vision – what success looks like in the coming years.
- Determine a strategic plan – what steps do we take to accomplish our vision through our mission?
- Communicate your mission, vision, and strategy with your entire team.
- If the process above is applied, challenging times may help refine your strategic planning process and the resulting strategic plan.
- Budget – Project your low and high expected revenue levels. Strive to cover your fixed costs with your lower expected revenue. In other words, make sure you are at least “breakeven” or a little better at your lower revenue projections.
- If your firm is performing better than the averages shown above, celebrate that with your entire team.

These are simple, but vital, leadership tools.

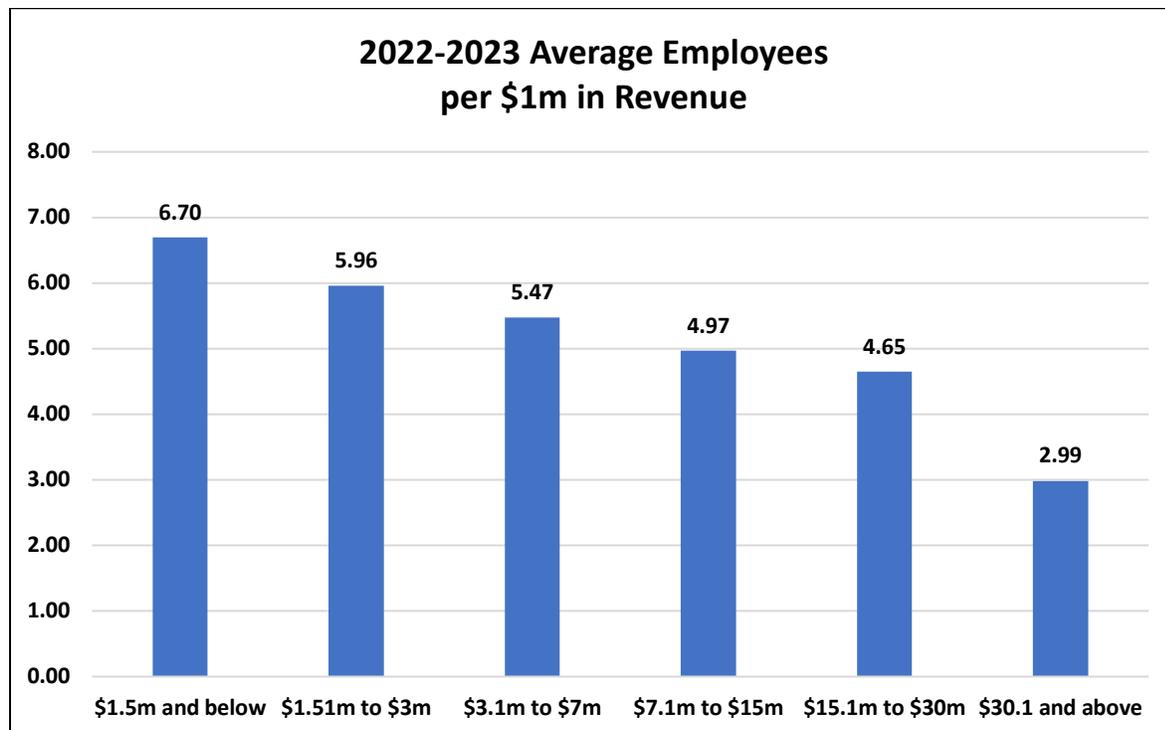
Employees per \$1m in Sales

We explored the number of employees per million dollars in revenue in various firm size categories, which we include in the chart below. In calculating these averages, we applied two approaches to enhance our findings' validity. First, we

reviewed each of the entries and removed anomalies. For instance, a \$3,000,000 printing firm with three employees may focus on brokering and would not reflect our industry in general. Second, we calculated the averages by combining our 2022 and 2023 findings. We did not see major differences between our 2022 and 2023 employees per \$1m in revenue numbers. Combining the two years to make a larger sample makes our numbers more credible.

There are two takeaways from the graph below. Compare these numbers to your firm's employee count to the related revenue category shown in the graph below. If your number of employees is far above the relative count shown below, step back and ask, "Why is this?" Then consider, "Should we adjust our employee count?" and develop a plan to do so if needed.

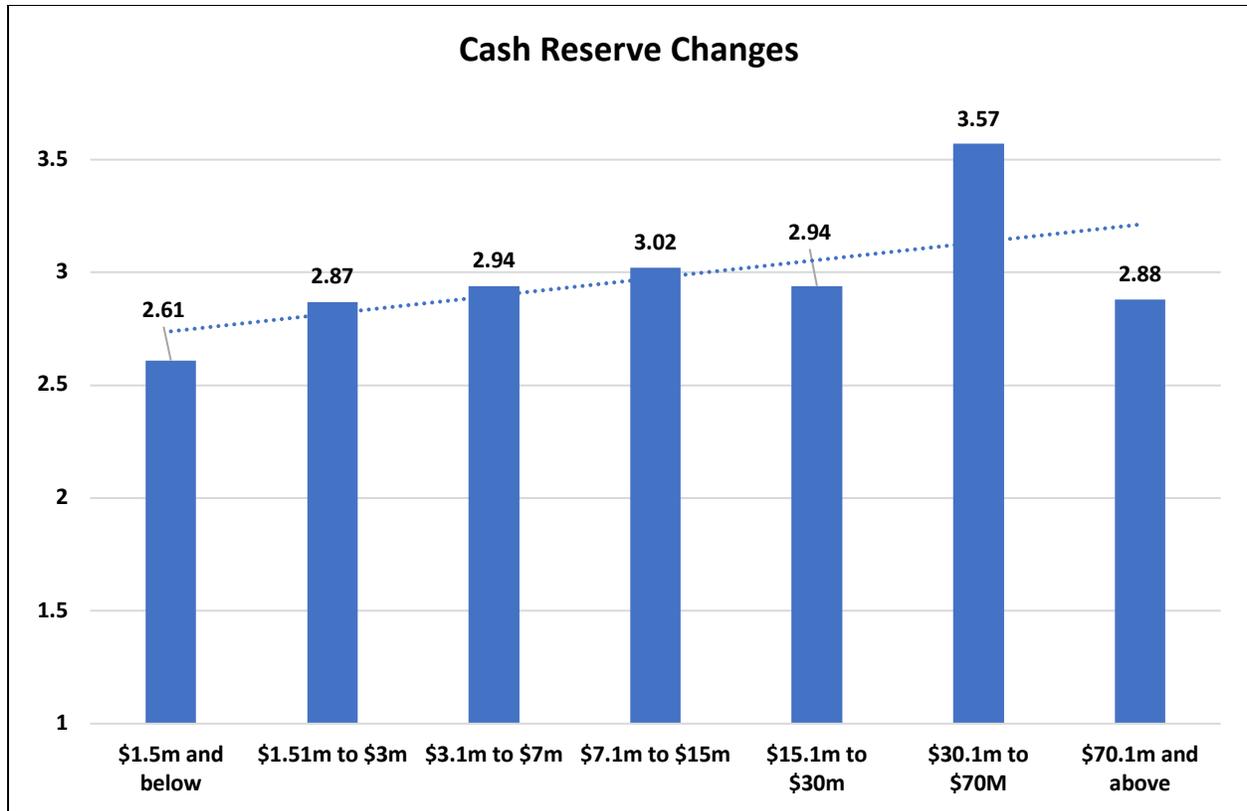
If your company is growing, don't assume your number of employees should grow at the same pace as your revenue. As your firm grows, focus on growing in efficiency. These takeaways may help address the employee-related inflation concerns mentioned above.



Cash Reserves

We were astounded by the cash reserve numbers from last spring's financial benchmarking study with consistent average current ratios of 3.0 or more! Those findings prompted us to ask in this survey, "Describe your company's 2023 cash reserve changes." Respondents answered on a five-point scale with these options: (1) Our company's cash reserve declined substantially in 2023; (3) No significant change; or (5) Our company's cash reserve grew substantially in 2023. The average response was 2.98, which indicates the strong cash position we saw in printing firms last spring hasn't changed much. This indicates that generally, firms in our industry have a solid liquidity position. The graph below shows the average per firm revenue size. We see a *slight* trend indicating larger companies are holding their strong cash positions a bit more than smaller companies.

If your cash position is solid, "good for you!" But be careful, and don't let "hubris" distract you from monitoring important cash numbers, such as days-in-accounts receivable, days-in-inventory, days-in-accounts payable, and current ratios. In monitoring these cash numbers, don't merely look at one month... look at trends. Our spring 2023 Financial Benchmarking report provides information on how to calculate those ratios. Use those ratios to make sure you are not caught off guard.



We hope you find the knowledge provided above helpful. If you have any suggestions or questions related to this report or the “*Printing Industry Performance & Insights*” studies, please email Ralph Williams at ralph.williams@mtsu.edu

Participating Regional Printing Associations

FGA – Florida Graphic Alliance
 GLGA – Great Lakes Graphics Association
 GMA – Graphic Media Alliance
 PGAMA – Printing and Graphics Association Mid-Atlantic
 PGCA - Print & Graphic Communications Association
 PIA – Printing Industry Association
 PIAG – Printing & Imaging Association of Georgia
 PIAMA – Printing and Imaging Association MidAmerica
 PIAS – Printing Industry Association of the South
 PIASD – Printing Industry Association of San Diego
 PICA – Printing Industry of the Carolinas
 PIMW – Printing Industry MidWest
 PINE – Printing Industries of New England
 PMA – Print Media Assoc.
 VMA – Visual Media Alliance

