

FINANCIAL PERFORMANCE

FUNCTIONAL PRINTERS







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

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

SGIA 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@sgia.org.



Executive Summary

More than 440 companies from across the printing industry participated in SGIA's 2019 second quarter Financial Benchmarking Industry Survey. This report summarizes results for the 24 respondents whose primary business is functional printing. (The survey defined functional printing as "printing done as part of a manufacturing process: applications include printed electronics, marking/branding of parts or products and decorative products, often printed at scale)."

The group's annual sales range from less than \$1 million to more than \$50 million, with a median of \$6.4 million. Two-thirds are based in the U.S., while nine countries, including Canada, Ireland, India and the Dominican Republic, are represented in all.

The majority sell exclusively to other businesses (68.2%), serve both industrial and non-industrial markets (56.5%), and have been in business more than 20 years (75.0%). While 58.3% are focused entirely on functional printing, 41.7% have diversified into other segments, including graphic and sign production (41.7%) and commercial printing (20.8%).

More than 68.0% use digital and analog technologies. Digital is dominant for 22.7%, analog for 9.1% and neither is dominant for 36.4%. Capacity utilization rates vary from less than 30% to greater than 80%. The majority, however, operate in one of two ranges: 41% - 50% (22.7%) or 71% - 80% (31.8%).

Half reported their sales increased last year, with the remainder reporting no change (37.5%) or a decline (12.5%). On average, sales were up 6.0%.

Revenue projections for 2019 are aggressive: 82.6% expect growth, while 13.0% expect no change and 4.4% decline. On average, sales are expected to increase by 11.9%. Those expecting growth are counting far more on what they will do for themselves — specifically, marketing more effectively (81.3%), selling more effectively (62.5%) and developing recently added products and services (56.3%) — than on what the economy or their markets will do for them.

Profitability increased for 47.4% last year, while 47.4% did not see a change and 5.2% saw a decrease. Expectations for 2019 are in line with 2018 results: 47.4% expect an increase in margins, 42.1% expect no change and 10.5% expect a decline. The most frequently cited barriers to increasing profitability include rising wages (64.7%), rising costs of essential materials, supplies and inputs (58.8%), and workflow inefficiencies (58.8%). Tactics for overcoming the barriers include lean manufacturing, automation, continuous improvement and monitoring operational efficiency more carefully.

The functional printers surveyed widely agree that revenue creation, cost control and efficiency must all be stepped up in 2019 to protect margins from rising costs.



Annual sales range from less than \$1 million to more than \$50 million for the functional printers surveyed. Of the respondents, 40.0% sell less than \$5 million per year and 65.0% sell less than \$10 million per year. The median sales is \$6.4 million.

Staff size ranges from fewer than 10 employees to more than 100. More than three-quarters (77.3%) are in the 20 - 49 range (22.7%), 50 - 99 range (27.3%) or 100 - 249 range (27.3%). No company in the sample has fewer than five employees or more than 249 (Table 1).

Two-thirds are based in the U.S. while 4.2% are Canadian and 29.1% are based internationally, including Ireland, India and the Dominican Republic. Nine countries are represented in all. Nearly two-thirds (62.5%) serve the international market with a quarter serving this only. Between 50.0% and 58.3% serve domestic markets, whether local, regional and national. Half serve one geographic market and half serve multiple markets (Table 2).

Profile of Participating Companies

Table 1: Company Size, Annual Sales and Employment

Functional Printers Annual Sales	
Less than \$1,000,000	20.0%
\$1,000,000 - \$4,999,999	20.0%
\$5,000,000 - \$9,999,999	25.0%
\$10,000,000 - \$19,999,999	10.0%
\$20,000,000 - \$34,999,999	15.0%
\$35,000,000 - \$49,999,999	0.0%
\$50,000,000 or more	10.0%

Functional Printers Number of Employees	
Fewer than 5	0.0%
5 - 9	9.1%
10 - 19	13.6%
20 - 49	22.7%
50 - 99	27.3%
100 - 249	27.3%
250 or more	0.0%

Table 2: Location and Geographic Markets Served

Functional Printers Location	
United States	66.7%
Canada	4.2%
Other	29.1%

Functional Printers Geographic Markets	Serve	Serve Exclusively
Local	54.2%	4.2%
Regional	50.0%	4.2%
National	58.3%	16.7%
International	62.5%	25.0%

Table 3: Business Description

Functional Printers Business Description	
Print-for-pay company, serving industrial and other market areas	56.5%
Print-for-pay company, solely serving industrial markets	30.4%
Non-print-for-pay company, solely serving industrial markets	13.1%

Table 4: Type of Business

Functional Printers Type of Business	
Business-to-business (B2B)	68.2%
Business-to-consumer (B2C)	4.5%
Both B2B and B2C	27.3%

Table 5: Years in Business

Functional Printers Years in Business	
More than 50 years	29.2%
21 - 50 years	45.8%
11 - 20 years	8.3%
3 - 10 years	12.5%
2 years or less	4.2%

Table 6: Offer Finishing/Post-Production Services

Functional Printers Offer Finishing/Post-Production Services	
Yes	79.2%
No	20.8%

Table 7: Exchange of Services with Other Printers

Functional Printers Exchange of Services with Other Printers	
Provide PRODUCTION services TO other printers	54.2%
Purchase PRODUCTION services FROM other printers	33.3%
Provide FINISHING/POST-PRINT services TO other printers	54.2%
Purchase FINISHING/POST-PRINT services FROM other printers	20.8%

Print-for-pay companies comprise 86.9% of our sample, with 56.5% serving industrial and other markets, and 30.4% serving solely industrial markets. Slightly more than 13.0% are non-print-for-pay (Table 3). More than 68.0% sell exclusively to other businesses, 27.3% to both businesses and consumers and 4.5% exclusively to consumers (Table 4). Of the companies, 75% percent have been in business more than 20 years and 29.2% for more than 50 years (Table 5).

Nearly four-fifths (79.2%) offer finishing services/post-production services (Table 6). Production services are provided to other printers by 54.2% and purchased from other printers by 33.3%. Finishing services are provided to other printers by 54.2% and purchased from other printers by 20.8% (Table 7).



More than 68.0% of functional printers surveyed operate both digital and analog production technologies. Neither technology is dominant for 36.4%, digital is dominant for 22.7% and analog is dominant for 9.1%. Nearly 42.0% are predominantly or entirely digital, while 22.7% are predominantly or entirely analog (Graph 1).

Concerning capacity utilization, there is no typical rate. However, 59.1% operate at greater than 50% of capacity and 54.5% operate in either the 71% - 80% range (31.8%) or the 41% - 50% range (22.7%). In comparison, 4.6% operate at 30% or less and 9.1% at greater than 80% (Graph 2).

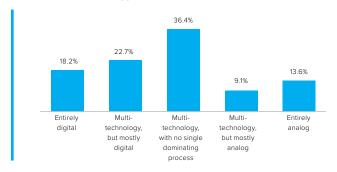
The majority of the surveyed group (58.3%) continue to focus strictly on functional printing. Among the 41.7% who have diversified into other segments, all now offer graphic and sign printing, while 20.8% offer apparel decoration, 20.8% offer commercial printing and 12.5% offer package printing/converting (Graph 3).

Last year, sales increased 6.0%, on average, for the functional printers surveyed. Half reported sales growth — 47.6% reported more than 5.0%, and 23.8% reported more than 10.0% — while 37.5% indicated no change and 12.5% reported a decline (Graph 4).

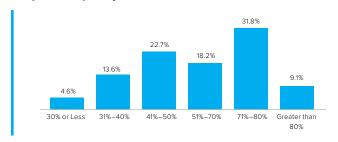
This year, 82.6% expect sales to grow — 68.4% expect more than 5.0% and 36.8% expect more than 10% — while just 17.4% expect no change (13.0%) or decline (4.4%). The average expected change in sales is 11.9% (Graph 5).

Production Technology and Equipment in Use

Graph 1: Technology Mix

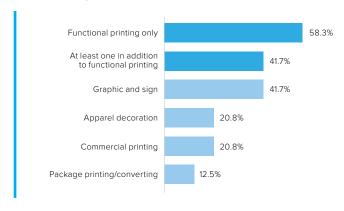


Graph 2: Capacity Utilization



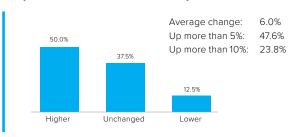
Segments Served/Convergence

Graph 3: Segments Served



Sales: Results and Expectations

Graph 4: How 2018 Sales Compared with 2017 Sales





Graph 5: How 2019 Sales Are Expected to Compare with 2018 Sales

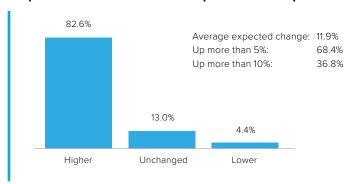
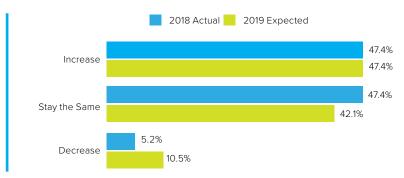


Table 8: Why Sales Are Expected to Increase in 2019

Functional Printers Why Sales Are Expected to Increase in 2019	
Marketing more effectively/more resources devoted to marketing	81.3%
Selling more effectively/more resources devoted to sales	62.5%
New products/services	56.3%
Favorable economy/business climate	43.8%
Strength in our major product/service markets	37.5%
Additional sales personnel	31.3%
Price increases	12.5%
Other	0.0%

Profitability: Results and Expectations

Graph 6: Profitability, 2018 Change and 2019 Expected Change



The aggressive projections are based far more on what the companies surveyed plan to do for themselves than on anything they expect the economy or their markets to do for them. Specifically, 81.3% expect more effective marketing, 62.5% expect more effective sales practices and 56.3% expect new products and services to boost revenue this year (Table 8). All who expect growth are counting on at least one of the three. In comparison, much smaller percentages expect help from the economy (43.8%) or their major markets (37.5%). None are counting entirely on either.

There is broad agreement that revenue creation, cost control and efficiency must all be stepped up to protect margins from rising costs. Last year, profitability (total income before income taxes but after all expenses, expressed as a percent of sales) increased for 47.4% of those surveyed, while 47.4% saw no change and 5.2% had a decrease. This year, 47.4% expect profitability to increase, 42.1% expect no change and 10.5% expect a decline (Graph 6).

A number of factors are limiting profitability. The most frequently cited are rising wages (64.7%), rising costs of essential materials, supplies and inputs (58.8%), and workflow inefficiencies (58.8%). These are followed by a shortage of skilled production personnel (52.9%) and older, less efficient equipment (52.9%) (Table 9). Plans to overcome those barriers include lean manufacturing, continuous improvement, automation and careful cost analysis, particularly cost-of-sales analysis.



Table 9: Biggest Obstacles to Increasing Profitability

Functional Printers Biggest Obstacles to Increasing Profitability	
Rising wages	64.7%
Rising costs of essential materials, supplies, inputs	58.8%
Workflow inefficiencies	58.8%
Shortage of skilled, productive personnel: production	52.9%
Older, slower, less efficient equipment	52.9%
Need to find/develop new markets	52.9%
Lack of sales, difficulty growing sales	41.2%
Rising cost of health care benefits	41.2%
Increased tariffs	29.4%
High client turnover/need to increase our retention rate	23.5%
Capturing a bigger share of clients' wallets/showing how much more we can do for them	17.6%
Shortage of skilled, productive personnel: sales	17.6%
Limited growth of our major products/services	11.8%
General economic weakness in markets/areas we serve	11.8%

One participant in our research shared insight into how his company maintains double-digit profitability. He describes the company as "multifaceted," serving segments in addition to functional printing and offering a wide range of printing technologies, including flexography, screen and digital.

A flat management system allows his team "to be very close to the processes we have and to try to strip out as much of the waste as possible." New MPR software will support "much more data collection so we can hone in on our processes even more." And all new processes "go through some very intense vetting and testing to see that the process will really work before we put it on to manufacturing." Because of the testing, manufacturing doesn't "have to guess how it will run. They know what

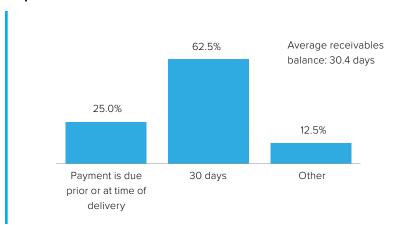
the parameters are, they know the settings, they know if the dye works, they know the inks are up to color, etc. We do a lot of things to ensure our team's success. A lot of other companies will sell the product, throw it into manufacturing and have manufacturing work it out. We don't do that."

Tight tolerances are defined for waste and inefficiency. When the tolerances are exceeded, "we spent a lot of time thinking about it, working on it and trying to improve it." And there is no such thing as good enough: "We just have that culture here of not just accepting the status quo but really pushing to try to make it better."

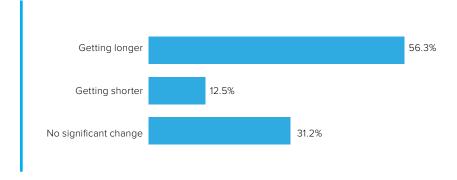


Days of Sales Outstanding

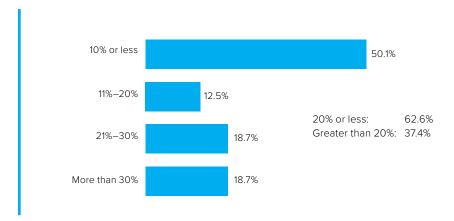
Graph 7: Standard Credit Terms



Graph 8: Trend in Days of Sales Outstanding



Graph 9: 2018 Receivables Past Due



Receivables balances averaged 30.4 days during the first quarter of 2019 for our sample of functional printers. In comparison, standard credit terms are 30 days for 62.5% and payment prior to or at time of delivery for 25.0%. Other terms, offered by 12.5%, include payment in 90 days and in 30 to 90 days (Graph 7).

Collection times are trending longer for 56.3%, shorter for 12.5% and not changing significantly for 31.2% (Graph 8). Finally, 50.1% report 10% or less of their 2018 receivables were past due as of April 1, 2019, and 62.6% report 20% or less were past due (Graph 9).



About SGIA Research

Research to Count On and Act On

SGIA research provides first-hand accounts of what's happening in the printing industry, what's expected and why. We survey the community regularly, collecting information on key business indicators and explanations that put the indicators in context. We conduct follow-up telephone interviews to enhance context and insight. And because our surveys reach across the community including graphic and sign producers, apparel decorators, functional printers, commercial printers, package printers/ converters, in-plant printers, manufacturers, distributors and suppliers — we capture the realities of convergence, the phenomenon of printers moving beyond their primary industry segments.

Two practices further distinguish SGIA research. Representative panels of participants reduce non-response bias, a source of serious potential error in survey research. and increase the comparability of data from survey to survey. Second, through "best in business intelligence" analyses, we go beyond what to do to how to do it.

The result is research the printing community can count on to be accurate, relevant and actionable, transforming what's happening and what's ahead into opportunities rather than threats.

SGIA Research Reports

The results of SGIA research are summarized in reports issued throughout the year. Among them:

Quarterly Industry Benchmarking Reports

- First Quarter: Markets and Products. Markets served, products provided, the ones printers believe have growth potential and those they'd like to add. Trends in and expectations for key metrics, including sales, production and profitability. Average capacity utilization. Printers' confidence in their primary business segment and in the American economy.
- Second Quarter: Financial Benchmarking. Sales growth and profitability rates for the past year and expectations for the coming year. Why sales and profitability are increasing or decreasing. Obstacles to increasing profitability. Days of receivables outstanding, receivables trends, standard credit terms and percent of sales past due.

- · Third Quarter: Wages, Salaries and Sales Compensation. Compensation rates and employee benefits by region and printing industry segment for more than 30 job titles. Detailed sales compensation data, including compensation rates, methods, commission structure and bonus structure.
- · Fourth Quarter: Growth Strategies and Capital **Investment.** Capital equipment installed, purchased over last 12 months and expected to be purchased over next 12 months by type. Factors influencing capital investments. Financing capital investments. Current and future growth strategies in production, management and sales. Current and future methods of attracting new customers. Barriers to growth.

Industry Benchmarking Report Supplements

A closer look at the critical issues and trends raised in the Quarterly Industry Benchmarking Reports, crosssegment analysis of sales growth, profitability and other performance indicators, takeaways from telephone interviews and best-in-business-intelligence how-to's. Published periodically.

SGIA Economy Watch

A summary of the American economy's performance, prospects and defining issues, including trends in GDP, business investment, consumer spending, employment and other major economic indicators. Published quarterly.

Participating in SGIA Research

SGIA members and non-members are eligible to participate in SGIA research. The benefits of participation include early access to all research reports and exclusive access to reports such as the Industry Benchmarking Report Supplements. To participate, contact Olga Dorokhina, Research Coordinator (olga@sgia.org) or Andy Paparozzi, Chief Economist (apaparozzi@sgia.org).

Accessing Research Results

Quarterly Industry Benchmarking Reports and Economy Watch are provided to SGIA members as a member benefit, and members can download the full reports at SGIA.org (login required). Non-members can download summary infographics. To join SGIA and have access to the full reports, visit www.sgia.org/membership or call 888-385-3588.



About Olga and Andy



Olga Dorokhina

Olga Dorokhina, Research Coordinator

Olga Dorokhina, Research Coordinator at SGIA, has extensive experience in research in Canada and the United States. Being involved in all stages of research, from survey design to data analysis and reports' presentation, Olga strongly believes that numbers could tell us interesting stories. We just need to listen to them while making our everyday business decisions. Her goal is to understand where companies fall on the industry spectrum and provide them with the tools to achieve their potential.



Andy Paparozzi

Andrew D. Paparozzi, Chief Economist

Andrew D. Paparozzi analyzes and reports on economic, technological, social and demographic trends that will define the printing industry's future. His most important responsibility, however, is being an observer of the industry by listening to the issues and concerns of company owners, executives and managers. He came to SGIA after more than 30 years at the National Association for Printing Leadership (NAPL), where he developed numerous studies on commercial printing industry's performance and prospects, including the State of the Industry Series and the Capital Investment Report. Andrew holds a Bachelor's degree in economics from Boston College and a Master's degree in economics — with concentrations in econometrics and public finance — from Columbia University.



