WINTER 2019

Leading PRINT

Data Driven: From the Garage to Bicoastal

A millennial-owned company expands at warp speed

Megaplying My Options

SEO heavyweight Joe Gass and his exponential revenue growth

Diversity: It's a bottom-line issue

Amy Miller on the value of female leadership

The story of Lawrence Chou and MGX Copy

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Association for PRINT Technologies

LeadingPRINT

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Send feedback and story ideas to *jshaffer@aptech.org*.

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Association for PRINT Technologies

Letter from

Thayer Long
President, Association for PRINT Technologies

For those of us fortunate enough to be at the first-ever PRINT Innovation Exchange in December, we got to hear from Pablos Holman, a well-known inventor, hacker, futurist, and in my opinion, complete badass. (What else do you call someone who developed a laser to shoot mosquitoes out of the air?)

Pablo talked about how important *innovation* is to our collective future. He noted that entrepreneurs can take advantage of today's immense technology capabilities and big data to rapidly deploy just about any new business idea. Those with the chops to try a new idea and the tenacity to follow it through can enter any industry or market and build a successful business there. That's both exciting and unsettling. It's possible your fiercest competitor in three years might not even be in your market today.

In this issue of LeadingPRINT, you'll hear from innovators in print. Lawrence Chou, a young entrepreneur, built a successful printing business based on software engineering savvy and the intelligent use of data. Joe Gass shares how he has mastered Internet search engine optimization to attract exactly the kinds of customers he wants to his wide-format printing business. And Amy Miller tells us how she has incorporated new ways of doing things as CEO of a long-standing family print business.

In this new year, make a resolution to try new things and to not be afraid of failure along the way. In 2019, Seth Godin's assertion that "the cost of being wrong is less than the cost of doing nothing" could not ring more true.

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CONTRIBUTORS

Mark J. Nuzzaco, Esq.
is vice president of government affairs at the Association for PRINT Technologies.

Lawrence Chou
is chief operating officer at MGX Copy.

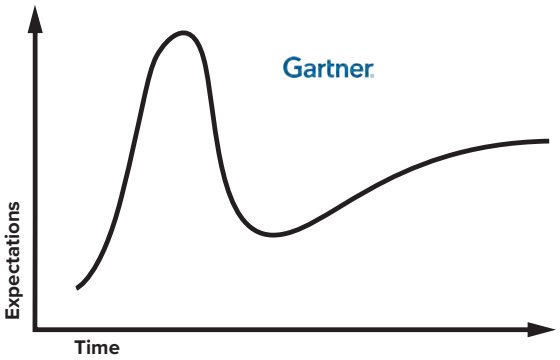
Joe Gass
is president and chief operating officer at Heritage Printing & Graphics.

Amy Miller
is chief operating officer at Castle Press Printing and Marketing and Trinity Graphics.

Spot Your Agency

Building a strategic partnership with an advertising or marketing agency is one way to expand the value you can offer to your client base. And mutual benefit comes into play when such a partner agency recommends you as its printer of choice. But with over 14,000 agencies in the country, how do you find the one that's a good fit for you and your business?

Try Agency Spotter, a digital research platform that lists marketing service providers across 40 service areas, including advertising, branding, package design, mobile marketing digital strategy, public relations, and content marketing. Search for agency listings by category as well as location, vertical market experience, size, diversity (minority- or female-owned), audience specialty, marketing platform, and technology expertise. In addition to this robust search function, Agency Spotter hosts over 130 Brand Pages, where you can see which agencies service a given brand and review select agency projects for that brand. Of the more than 20,000 professionals using the tool to search every month, 70 percent are from small- and medium-sized companies. Agency Spotter is free for businesses to search for, list, and review agencies. Its Brand Concierge service provides RFP management and agency search assistance at paid rates. *agencyspotter.com*



Don't Ignore the Hype

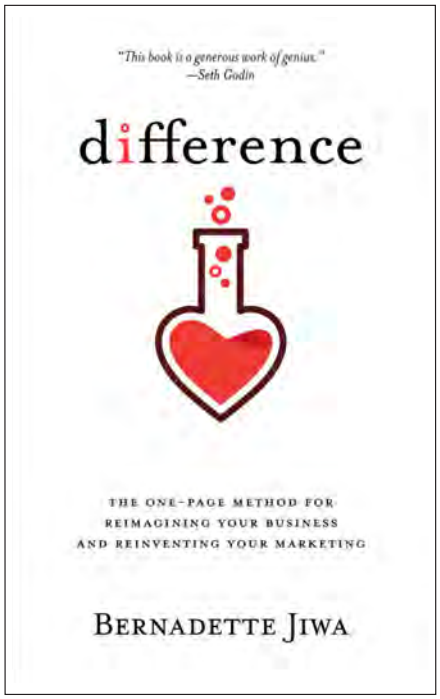
Each year, research and advisory firm Gartner publishes updates to its Hype Cycles, visual representations of the lifecycle of a technology or application. Depicted as a chart with the x-axis reflecting time and the y-axis reflecting expectations, products move through the Hype Cycle from the Innovation Trigger, over the Peak of Inflated Expectations, to the Trough of Disillusionment. If a product succeeds, it moves on to the Slope of Enlightenment and, ultimately, to the Plateau of Productivity. Track a Hype Cycle year-over-year to see the perceived value of a technology as it matures. For example, the 2018 Hype Cycles for Emerging Technology show Smart Dust (dust particle-sized electronic devices) at the Innovation Trigger stage, Blockchain just over the hump of Inflated Expectations, and Augmented Reality down in the Trough of Disillusionment (are you tired of the hype around AR?). Gartner offers snapshots of its research, including overviews of its Hype Cycles, at *tinyurl.com/gartnerhypecycle*.

Won't Forget(ica)

Can a font help you better remember what you read? A team of researchers and designers at Australia's RMIT University think so. They say type that's too clean fails to engage our brains and stimulate retention. So they created San Forgetica. The font is difficult to read by design, forcing our brains to work harder, thus stimulating retention. Download for free, *sansforgetica.rmit.*

Keep Calm and Meditate On

A recent survey by the National Institute of Health shows that 14.2 percent of adults in the United States practice meditation, a 340-percent increase over five years. To catch the wave, try Calm, an iPhone app of the year. It promotes stress reduction, improved focus, and better sleep with guided meditation, soothing music, and bedtime "sleep stories." Free seven-day trial; $60/year. *calm.com*



On Creating Difference

Empathy. This single word lives at the core of "Difference: The One-Page Method for Reimagining Your Business and Reinventing Your Marketing," by Bernadette Jiwa. Jiwa is the author of six best-selling books and a globally recognized authority on the value of storytelling in business and marketing. In this book, Jiwa explains that many of today's most successful businesses didn't necessarily start with a brand new idea or invention (Starbucks didn't invent coffee) but with empathy and an understanding of what really matters to people. She calls this "difference thinking" and decodes how modern organizations like Airbnb, Apple, Chobani, Spanx, and Uber have used it to succeed.

A master storyteller herself, Jiwa includes tales about companies, big and small, that create difference. Like the story of the small grocer in her native Dublin who fended off big nearby supermarkets by fostering a sense of community for customers of his store. And that of Method, the small cleaning products company that achieved 500 percent growth in only three years by offering a sustainable product very different from the mass market competition. Throughout, she builds a convincing argument that nearly all the best-loved brands built in the past decade have focused on empathy and an understanding of what people want. She points out that we're living at a unique moment in time, a digital age in which we can listen and learn about what people desire and get feedback from customers in real time. It's only when we do this with empathy, Jiwa say, that we can create ideas and brands that matter. *tinyurl.com/differencemodel*

Know Your Standards

Standards in the print and packaging industry, including ISO and CGATS, set clear expectations for clients, prevent problems in the production workflow, and improve overall productivity. The APTech Bluebook is a reference for all standards activities in the printing, publishing, and converting industry, both in the United States and internationally. Updated annually, the new Bluebook is freely available at *tinyurl.com/APTechBlueBook*.

What Was That Password Again? ...

How do you keep track of all your passwords? Unless you have an eidetic memory or use the same password for every account (cybersecurity alert!), you may rely on a spreadsheet or notebook to keep track of them. To minimize effort and confusion, try LastPass, a password-management tool that keeps all your passwords in an encrypted "vault" accessible from any device. LastPass Enterprise provides password management for businesses, centralizing management and security. *lastpass.com*

Do You Have a Tsundoku?

If you collect books but don't always get around to reading them, you may be suffering from Tsundoku, a Japanese term for "acquiring piles of unread books."

Love a Tree

Melbourne, Australia assigned email addresses to 70,000 trees so residents could report damage and other problems. Instead, the trees have received thousands of love letters. The project is part of the city's Urban Forest Visual, an online interactive map about the health of its trees: *tinyurl.com/ForestVisual*.

Data Driven: From the Garage to Bicoastal

A millennial-owned company expands at warp speed.

By Lawrence Chou

When people talk about using "data" in their print businesses, or being "data-driven," it's usually in connection with "variable-data printing" — using customer-supplied data to produce highly targeted personalized direct mail. That's one use of data, but it's not what I consider to be a true data-driven business, and it's not how we use data.

Photo by Mark Lenoce

When I talk about MGX Copy being a "data-driven" business, I mean that we use data not *from* but *about* our customers to help us decide what products to offer and what kinds customers to pursue. And that we use data about our operations to guide virtually *every* decision we make about our company, from staffing and training to equipment purchasing to facility growth planning.

Nine years ago, I started MGX Copy in my parent's garage, from basically nothing. Today, we're a multimillion dollar company with two San Diego facilities and a third location in New Jersey. A big part of our success is due to our creative and consistent use of data.

And when I say that our first "location" was a garage, I mean that quite literally.

Print or the Laundry?

It was just a crazy idea at first: I needed to have something printed, and I found the particular experience to be compromised on just about every level — service, quality, price. I thought to myself, "I could run a better print business." It was the kind of blue-sky idea you have when you're young and fresh out of college (I had just graduated from UCLA). The idea stuck with me, so I recruited some friends and family to help me launch the business. We bought our first printer from a local electronics store. It cost $400 and sat on a desk in the garage. After the first year (and another printer), I had two family members and three friends working full-time.

We started advertising and taking orders online. Our first product was black-and-white copies, and we soon added color. Our early specialty was cheap color copies for a national audience, enabled by savvy Internet marketing and search engine optimization. That was it. That was also where the name MGX Copy came from: We made copies.

We stayed in my parents' garage for as long as we could. As we expanded, the business spread to the dining room … and the living room … and my brother's room … and my room. We had upgraded our desktop printer to a Xerox DocuColor 242, and we added a Xerox 700. Then we ran into problems. The 700 needed 220 volts of electricity, and residential homes usually have only one 220-volt outlet to run the dryer. So that's where we plugged in the 700. We could either print or do laundry, but not both. Fortunately, my brother and father were

Humble beginnings in family garage
Staff: 3

2010

2011

Expand into livingroom. Xerox 700 creates a choice: print or laundry?

Move into first facility, Poway, CA, 2,400 sq. ft.

2012

part of the company at the time, and my parents were incredibly supportive — up to a point.

That came when there were stacks of paper all over the house, and the laundry wasn't getting done. After about two years of this, my parents decided, "We've incubated you enough," and they kicked us out. We moved into a facility in Poway, a suburb of San Diego. In about two years, we grew out of that facility and moved to a larger facility in San Diego. We grew out of *that* in two years, so we added a second facility in San Diego, and then added our New Jersey location.

Managing in Real Time

MGX Copy has been included in lists of the fastest-growing companies in America for the past four years. We've been named the 17th fastest-growing company in San Diego, and the 50th fastest-growing company in California. When you look at these kinds of lists, they include nearly all technology companies. You never see a printing company. The fact that we've registered on these lists is validation that taking a technology-based approach to a traditional business can reap rewards.

We use data as a near real-time indicator of what we need to do with our business to react to our internal conditions — and to the market — quickly. We don't wait 12 months for results and then try to figure out what happened in the past and how it impacts the delayed present.

> **"MGX Copy has been included in lists of the fastest-growing companies in America for the past four years."**

We can see the trends daily or weekly and make key decisions fast — about equipment, staff, and products.

When we first launched MGX Copy, our biggest challenge was that we didn't actually come from the printing industry. Neither I nor any of the friends, family, or college classmates who joined me had any experience running a print business. But that may well have been our biggest advantage.

Move to larger facility, San Diego, 7,500 sq. ft.

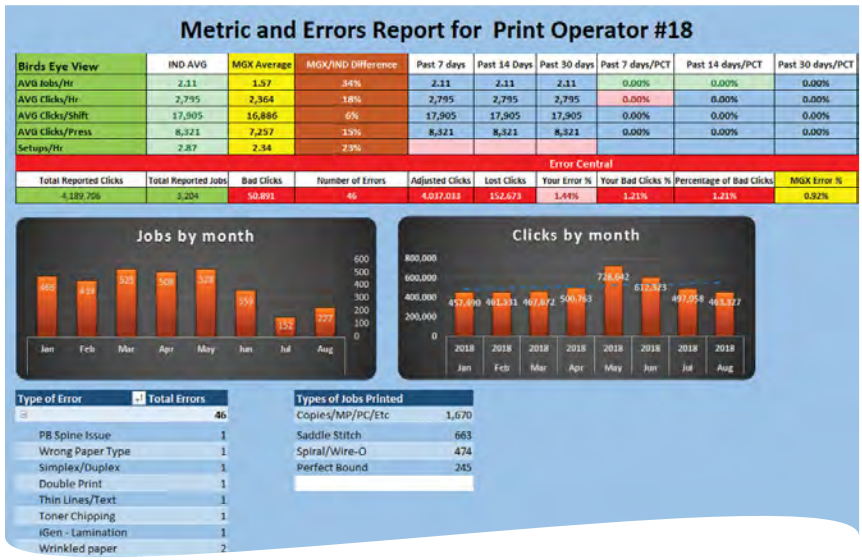
2013

2014

2015

End-of-year conference Staff: 15

Install first Ricoh C9110 in the country



Metric and Errors Report for Print Operator #18

Birds Eye View	IND AVG	MGX Average	MGX/IND Difference	Past 7 days	Past 14 Days	Past 30 days	Past 7 days/PCT	Past 14 days/PCT	Past 30 days/PCT
AVG Jobs/Hr	2.11	1.57	34%	2.11	2.11	2.11	0.00%	0.00%	0.00%
AVG Clicks/Hr	2,795	2,364	18%	2,795	2,795	2,795	0.00%	0.00%	0.00%
AVG Clicks/Shift	17,905	16,886	6%	17,905	17,905	17,905	0.00%	0.00%	0.00%
AVG Clicks/Press	8,321	7,257	15%	8,321	8,321	8,321	0.00%	0.00%	0.00%
Setups/Hr	2.87	2.34	23%						

Error Central

Total Reported Clicks	Total Reported Jobs	Bad Clicks	Number of Errors	Adjusted Clicks	Lost Clicks	Your Error %	Your Bad Clicks %	Percentage of Bad Clicks	MGX Error %
4,189,706	3,204	50,891	46	4,037,033	152,673	1.44%	1.21%	1.21%	0.92%

Type of Error	Total Errors
	46
PB Spine Issue	1
Wrong Paper Type	1
Simplex/Duplex	1
Double Print	1
Thin Lines/Text	1
Toner Chipping	1
iGen - Lamination	1
Wrinkled paper	2

Types of Jobs Printed	
Copies/MP/PC/Etc	1,670
Saddle Stitch	663
Spiral/Wire-O	474
Perfect Bound	245

One example of Chou's "data visualizations," this report tracks individual print operators by clicks, jobs, and errors. This enables management to measure performance of employees and equipment.

I had been an economics major. And I brought in friends who were also economics majors — and software engineers — to help me get the business launched. While we didn't have decades of printing industry experience or "gut instincts" to rely on, we *did* have computer programming and software engineering skills, as well as our ability to crunch numbers and recognize the value and potential uses of data. We brought that knowledge and overall approach to bear on the business.

Now, it's one thing to collect data. Anyone can collect data. It's another to act on it. Unless you use data to make informed decisions about your business, it's just a collection of random numbers. I'll share the four main steps we use in our approach to data analysis.

Determine the Data to Capture

Not everyone knows what types of data can be captured or that, depending on the software you have, you can capture data about virtually any aspect of your business.

For example, let's take employees. We can determine who our best employee is, and by how much compared to other employees. We can determine if our best employees are improving and if we have any who need to improve. This kind of data helps us make decisions about compensation — who merits a raise and who doesn't — and identifies

Add second facility, San Diego, 5,000 sq. ft. Holiday party

2016

2017

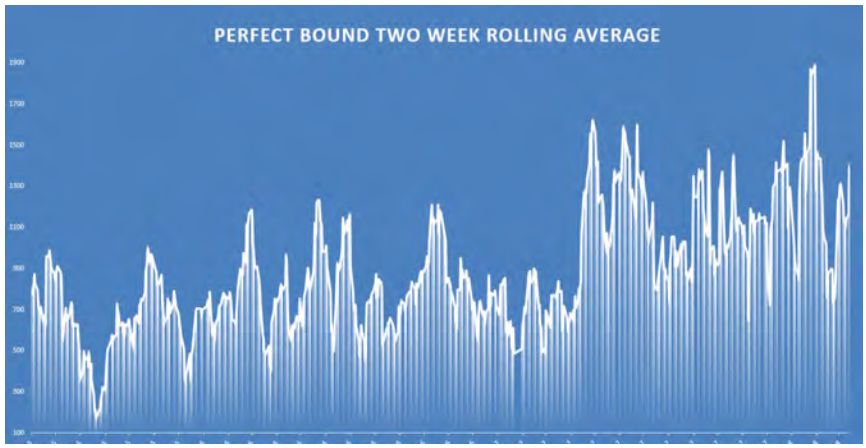
Open third facility, New Jersey, 5,000 sq. ft. (17,500 sq. ft. total)

those who may need more training. Ultimately, this leads to better employee morale and better overall productivity.

Data can also relate to operations. We can see how much waste there is in the company and who or what equipment is most responsible for it. Any time we need to reprint a job, we document it. We identify the reason for the reprint and the operator and/or the machine that caused it. We can see immediately if we're having a lot of issues with a particular operator or machine. Does the operator need more training? Does the machine need maintenance?

We use data to manage capacity. More than 95 percent of our jobs are shipped, and we have to expedite shipment at our own expense if we're not making our deadlines. We track the kinds of jobs that aren't getting out on time and can pinpoint where the bottlenecks are. Do we need to add staff? Do we need to add an additional shift? Do we need to increase capacity? Is there an issue in our bindery?

And data can relate to product offerings. We can identify our best-selling product and see if it's on a growth trajectory. If so, we can decide whether to buy new equipment to capitalize on the trend. We can pinpoint our least-selling product, see whether it's on a downward trend, and decide whether to remove it from our offerings. This data helps tailor a product mix that is most relevant to the current market.



To track the performance of specific products and identify trends, Chou and his team plot two-week rolling averages. This one shows production of perfect bound publications over a three-year period.

Collect the Data

Data is really just the result of measurement. We measure *every* aspect of our company. And the tools we use vary depending on which part of the operation we're measuring. We wrote and developed our own production and management workflow (MIS) to suite our business and data collection objectives. In addition to that, we use some off-the-shelf, third-party solutions and some simple forms and commonly available applications.

To analyze our print department, for example, we developed an electronic form that each press operator fills out to record his or her daily output in number of jobs and number of clicks. This allows us to measure each print operator's performance and the performance of the equipment.

For our customer service department, we use an online customer service tool called Salesforce Desk to track customer service inquiries.

2018

End-of-year conference
Staff: 60

Since Salesforce Desk doesn't have quite the reporting features we need, we port the data into an online reporting tool called Zoho. For each customer service employee, we track the number of calls, number of orders, number of *completed* orders, and the duration of each call. This allows us to measure each customer service representative's performance.

To measure how specific products and services are selling, we use our custom MIS to capture information about the number of jobs by type of job (saddle-stitched booklets, perfect bound books, hardcover books, etc.) and every other aspect of production, such as matte vs. gloss lamination, and finishing options.

For overall operational efficiency, we record all shipments and costs in an Excel spreadsheet. We also capture where, geographically, our orders are going.

Understand the Data

Once we capture the data, whether it's from a form or our MIS, we import it into an Excel spreadsheet where we can create "visualizations" — charts and graphs that let us see what's going on in our business in a near real-time view.

To analyze our printing department, for example, we run a series of visualizations to track clicks, jobs, and errors per employee. We track each employee against other employees, as well as against department averages (see report, page 10).

"Once we capture the data, we create "visualizations" – charts and graphs that let us see what's going on in our business in a near real-time view."

Likewise, for our customer service department, we can see how each customer service representative is doing and how he or she compares to other reps. To track the performance of specific products and services, we plot two-week rolling averages to see the short- and long-term trends (see graph, page 11).

Act on What We Learn

These visualizations are the keys that turn data-for-data's sake into information we can act on.

Looking at graphs of individuals and their productivity over time prompted us to develop and implement a standardized process for a six-month review period for every employee and a pay raise system based on whether or not certain goals have been met in the prior six months.

For our customer service department, we use the collected performance data to determine who might need more training. Issues we uncover — specific problems with orders, for example — serve as a basis for employee training topics.

We ramp up or phase out products and services, or reallocate resources, based on the trends we see. If there's been a huge increase in saddle-stitched books and orders are not getting out on time, we notice that quickly. We can track our late shipments for that product and then look at both the sales trends for the product as well as the production line. Is our equipment maxed out, or do we have extra capacity? If the former, then we need to add capacity. If the latter, we need to add an extra shift or add staff. The data tells us where we should be putting our resources. We can also identify those products or services for which we might want to scale back resources — or cease production (like, say, CD/DVD duplication services).

In terms of managing our equipment, we're able to identify critical maintenance issues. For example, one of our 10 digital presses had started printing with a yellow tint. We were able to identify the exact machine and correct the color issue before it affected other projects.

Data analysis impacts our investment in facilities. We saw a few years ago that about 65 percent of our customers are located on the East Coast. We reasoned that if we opened an East Coast facility, it would cut our shipping costs and decrease our turnaround times. Since we've opened our facility in New Jersey, our shipping costs have dropped by over 30 percent per box, on average. And many of our Next-Day Air shipments haven turned into less expensive Ground shipments. We know this because we tracked it.

Amazon Speed Ahead

Collecting and analyzing all this data is really about understanding how to effectively allocate resources. It's about constantly measuring the business's vital signs and fixing small errors before they become big problems. If exceptions go unreported, if an operator keeps making the same mistakes, or if a machine keeps going down, we'd end up producing reprints (and eating into profits) without understanding and solving the underlying problems. This is especially true when you have a large fleet of equipment and a big staff.

Developing all of these tools and metrics is not a

simple endeavor, and many print businesses don't do it because owners and managers simply don't have the time. The story is the same for us, so we created a full-time position for "data reporting." This individual builds the processes to gather the data and creates the reports for the department managers. In our experience, dedicating a person to "owning" the data function in our business in invaluable.

Our data-centric approach has helped us improve the quality of the products we offer and increase turnaround times. We started out making black-and-white copies, then began offering color copies. We then expanded into brochures, and into saddle-stitching. We just started offering hardcover books and have been focusing heavily on wide-format applications such as banners and posters, which — the data tells us — have become big sellers and are on an upward trajectory. We're also adding "embellishment" kinds of applications, such as business cards and postcards that feature a fifth color, raised ink, and foil.

We can turn jobs around very fast — at what we call "Amazon speed." That is, we can get an order of 500 perfect bound books printed, bound, and delivered to a customer in under 24 hours. Based on this efficiency, we started marketing a service called "Rush Critical Overnight," which has become very popular. Somebody calls us and says, "We messed up the name of the sponsor in our event program so we need to reprint the entire thing." We can help them out. We'll print and ship 100, 1,000, 2,000 copies of a catalog or program going anywhere in the country. We don't see a lot of printers that are able to work at this kind of "Amazon speed." Fluid data makes it possible.

As we enter 2019, MGX Copy is almost a decade old, and it amazes me how far we've come from simple black-and-white copies. And as a result, the name "MGX Copy" doesn't fit us anymore. It makes us sound like a small copy shop when in reality we produce a wide variety of printed products. So starting in March 2019, we will be called Printivity.

It's been an ongoing learning process since the early days in the garage — and the education never stops. The market for print is always changing, and demand for specific products is always changing. Back in 2010, it was copies. Today, it's books and wide-format. Tomorrow? Who knows, but we'll be there. The data will show us the way.

Lawrence Chou *is CEO of MGX Copy, soon to be renamed Printivity. He founded the company in 2010 right out of college. If you do the math, the numbers say he is part of the Millennial generation. Despite the stereotype, he loves print. Connect via* chou@leadingprint.org.

MGX Copy encourages a positive and collaborative workplace by holding fun (and sometimes zany) team-building events.

Proving Performance: Helping Small Agencies to Thrive

Marketers are increasing their emphasis on measurable "outcomes" to gauge the success of their campaigns. The 2018 "New Year Outlook" survey from agency researcher RSW/US says that 87 percent of marketers believe it is "important" or "highly important" for ad agencies to provide data analytic capabilities. This forces agencies to deliver. And that's a daunting prospect when 78 percent of U.S. ad agencies are small, with less than 10 employees. Printers that can help address this need are well-positioned to win business from both agencies and marketers.

One way to do this is by forming strategic alliances with agencies – especially those with an expertise in related disciplines, like targeted data analytics. This kind of talent can be found among the 51,000 freelancers in the U.S. for whom hyper-specialization is a distinct competitive advantage. Revenue for ad agency freelancers is growing, up 7.3 percent in 2016 to $3.09 BN, making this a valuable market segment to target for either partnership or acquisition.

Establishments

Total U.S.	13,380
Largest Metro Area (MSA)	NYC/Newark
From Top 5* Metro Areas	30%

*NYC, L.A., CHICAGO, MIAMI, DALLAS

Freelancers

Est. Receipts	$3.09 Bn
Total Entities	51,479
From Top 5* States	46%

*CA, NY, TX, FL, PA

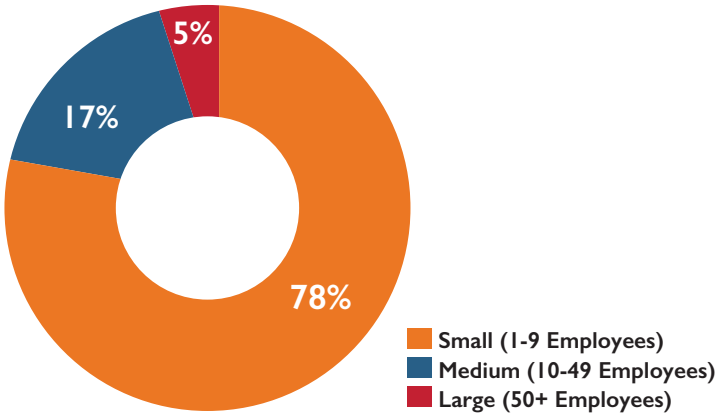
ESTABLISHMENTS (Excludes freelancers)

- From 2008 to 2013, the number of ad agencies fell by **-8.5%**. There was a slight uptick between 2014 and 2016 (**+0.8%**), but totals remain well below those of 2008 (**-6.5%**).
- Although the total number of agencies decreased between 2008 and 2016, the number of bigger agencies, with 50+ employees, increased by **+27%**.
- The Mid-Eastern region has the largest number of ad agencies. The highest number of "small" establishments, with less than 10 employees, is found in the Southeast.

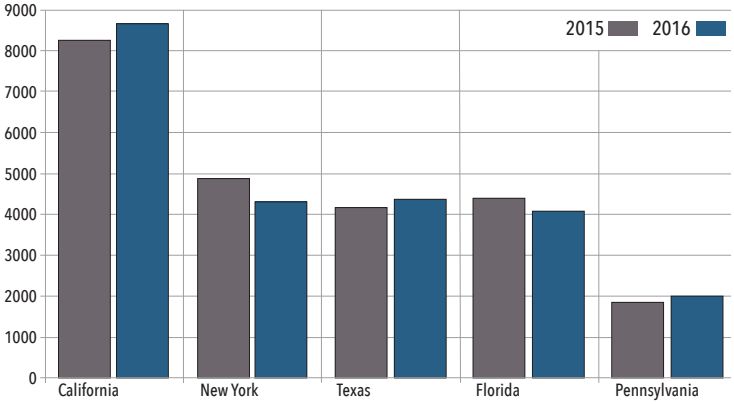
FREELANCERS

- The estimated $3.09 BN earned by ad agency freelancers in 2016 was almost as much as that of "small" ad agencies, whose receipts totaled $4.66 BN.
- From 2015 to 2016, freelancers in Wyoming (**+154%**), Delaware (**+86%**), and Alaska (**+56%**) had the largest YoY increases in receipts by percentage. Freelancers in California saw the largest increase in pure dollars (**+$77 MM**).
- In 2016, the Western region moved ahead of the Southeast in total number of freelance business entities, 10,670 vs. 10,251.

Establishments by Size – % of Total U.S. (2016)



Freelance Business Entities – Top 5 States 2015 vs 2016



PrintStats

PrintStats is a business demographic resource developed by industry experts Dr. Joe Webb, Richard Romano, and economic consulting firm ExpliStats. Launched in 2017, PrintStats provides industry professionals and suppliers with actionable data they can use to estimate market size, identify geographic opportunities, and develop sales plans. The baseline data is derived from the U.S. Census Bureau's 2016 County Business Patterns data series, released in April 2018. PrintStats enhances this data with research and statistical analysis to include industry estimates and forecasts.

Get More

PrintStats is available to APTech members at *tinyurl.com/aptechprintstats*. A sample report covering the U.S. graphic design industry is publicly available at *tinyurl.com/printstatsgraphicdesign*.

For more information, contact Jason Goodwin at *jgoodwin@aptech.org*.

Employees

Total U.S.	194,792
Top 5* States	114,478
States 11 - 50 & D.C	55,041

*NY, CA, IL, TX, FL

Shipments

Total U.S.	$44.2 Bn
Largest State*	$11.4 Bn
From Top 5* States	60%

*New York

*NY, CA, IL, TX, FL

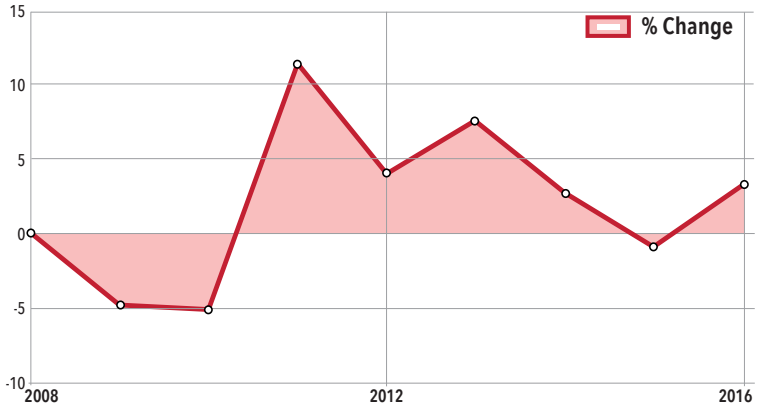
EMPLOYEES (Excludes freelancers)

- The total number of employees at U.S. ad agencies (194,792) has increased steadily since the post-recession low of 149,095 in 2010. The rate of growth has slowed in recent years, with 2016 up **+2.2%** over 2014.
- The New York City/Newark/Jersey City metro area has the largest concentration of ad agency employees (49,582), almost triple that of the #2 metro area, LA/Long Beach/Anaheim (17,362).

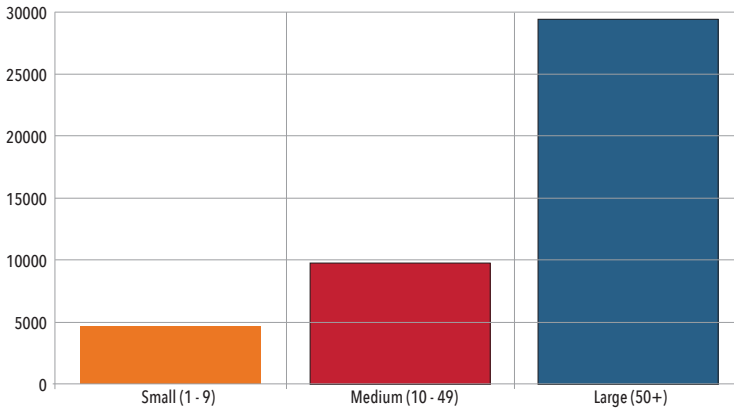
RECEIPT (Excludes freelancers)

- 2016 ad agency revenues of $44.2 BN were up **+9.7%** from 2015.
- Large agencies are 5% of the industry but represent two-thirds (67%) of the revenue. Agencies with less than 10 employees earned 10.6% of industry revenue.
- Mid-Eastern agencies accounted for 32.1% of revenue. New York, the largest Mid-Eastern state, accounted for 25.7% of revenue alone.

Advertising Agency Employment – YoY % Change



U.S. Sales ($MM) – By Establishment Size (2016)



Megaplying My Options

SEO heavyweight Joe Gass and his exponential revenue growth

Kevin Wolf/AP images

By Joe Gass

Ten years ago, I was the Charlotte, North Carolina, division of Heritage Printing & Graphics. It was me and an empty office. That's it.

For the first six months, we had a single client. Today, our Charlotte location has a major production facility, is actively adding capabilities, and has over a dozen employees. Our sales have grown to $1.8 million, from $325,000 in 2009. Over that same period, Heritage Printing, with our total of three locations, has grown from $1.1 million to $4.2 million.

I was never out to build an empire with Heritage; we are in business to help our customers, and I feel very blessed that we have been able to do that for as long as we have. But, in order to be able to help customers, I have to acquire them — the *right* ones, whose specific needs we can meet. One of the best tools for us has been the Internet. With it, we have been able to attract *exactly* the customers we want to attract. Then, we've built a response and service model that takes these potentially one-time customers and turns them into more. With this strategy, we're creating long-term relationships, translating one-off $800 jobs into projects that can fetch $10,000, $20,000, even $100,000 and often turn into repeat business. This has been the secret to our growth.

Grounded in Print

Heritage Printing & Graphics, like many legacy print companies, has seen its share of peaks and valleys.

This is our family's business, originally started in 1977, in Maryland, as Gass Printing Service. In 1988, after a six-year enlisted career in the United States Navy, I joined the business alongside my brother, Steve, and my father, Allen. I came in to run the company, renamed Heritage Printing & Graphics, and develop sales. We grew from $165,000 in sales to nearly $600,000 that first year and then slowly increased our revenue throughout the 1990s as we transitioned from a small quick printer to a larger format commercial printing company focused on process color publications, marketing materials, and direct mail.

By 1996–97, we started thinking about the Internet. We began amassing domain names and keyword phrases, and we licensed *heritageprinting.com* as our main website. We realized early on that "search engine optimization" (SEO) was an effective way to use the Internet to get business — although it wasn't until after my "sabbatical" years (which I'll get to) that we put the strategy to full use.

The early 2000s, however, brought a reversal of fortune. The end of the dot-com bubble, the 9/11 attacks, and the recession that followed took a toll

A Google search for "life-size cutouts" led advocacy group Avaaz to Heritage Printing, which turned out the 100 standees of Facebook CEO Mark Zuckerberg in three days — in time for a public protest at the U.S. Capitol.

The customer base of Heritage has grown to include high-profile brands like Krispy Kreme. For this annual event, Heritage produced multiple branded products, including retractable banner stands and custom elevator wraps.

on our company. We struggled with heavy debt and shrinking margins, even as sales continued to grow. In 2004, the company went through a reorganization, and my brother and I went through personal bankruptcy.

Around that time, I decided that I needed to step back and take stock of my life and the company. In 2005, I began a sabbatical, relocating from Washington, DC, to Charlotte, N.C., to explore life outside my comfort zone. I established and ran a local non-profit organization and devoted more time to my wife and our four young children. It wasn't a *complete* sabbatical; I continued to telecommute via phone and online several hours a day. The staff back in Maryland stepped up to their new leadership roles, and the company was regaining its footing.

"Most websites are built to communicate information and be attractive-*looking*, but not to draw in the people who are googling for the things they need."

As I became more involved in the community in Charlotte, I started to see new opportunities for print. In 2008, I began to seriously think about what I could do to create a platform *in Charlotte* for Heritage to meet local needs for marketing materials and publications. I rented some space at the Printing Industries of the Carolinas (PICA) headquarters and set up a sales office. I call it *a sales office*, but it was empty — no desk, not even a phone. I needed the space to formally represent Heritage Printing & Graphics in the city — and to ensure that we would show up on Google Maps (remember, we were figuring out this Internet search thing). The fact was, in these early days, I didn't need to be in my office — I was out networking.

Rounding Up Rotarians

When I got serious about expanding Heritage, I joined Charlotte's Rotary Club. I had been a Rotarian since getting out of the Navy, and when I started setting up our presence here, this was the foundation of my networking efforts. I'd talk with people, always limiting the conversation to 30 minutes and never asking for business. It was a great six months during which I met with a lot of people and began building a network.

The first job we did here came after I met the City Manager of Charlotte. We had a great conversation, and I handed him my card. Three weeks later, I got a call from the Charlotte Economic Development Department. They needed a 176-page, perfect-bound, 5,000-run publication. It was a good-size job at the time — around $10,000 — and that was the true start of the Charlotte location of Heritage Printing. We soon changed our focus to wide-format and display graphics, and we landed a major retail chain as our sole client for six months as we learned this new business.

Two Hundred Keywords

While in-person networking got Heritage Printing Charlotte started, another chance meeting in those first months enabled us to take advantage of Internet

marketing and *really* get the business growing. At a local Chamber of Commerce meeting, I met Kevin Smith, who worked full-time for a website developer and did freelance web consulting. I mentioned that I thought Heritage needed a separate website to represent the Charlotte market. We already had *heritageprinting.com*, which at the time was a fairly generic website: functional, but didn't do what was necessary, which was to attract people — the *right* people — to our site. It lacked effective SEO. Most websites at that time — and even today — are built to communicate information and be attractive-*looking*, but not to draw in the people who are googling for the things they need. This was the question Kevin and I proceeded to work on: What are people on the Internet asking for when it comes to print, and how can we drive them to our new site, *heritageprintingcharlotte.com*?

Joe Gass

Search engine optimization is a complex science and art that can't be succinctly described, or easily and quickly implemented. It starts — but doesn't end — with keywords, the words and phrases people use in Internet searches to find what they're looking for. True SEO is a way of optimizing a website so that when a potential customer enters a word or phrase in Google (or another search engine), that site appears near the top of what are called "organic" search results. The alternative is "Pay Per Click" (PPC), whereby you pay Google (via their AdWords platform) to appear high up in search results for certain keywords or phrases. We use PPC sparingly, preferring to rely on organic search. It can be more effective — users click on these results more often than PPC hits — but it's also harder. Ranking high in organic search results is accomplished not just by using effective keywords — that is, ensuring that those keywords and phrases appear in the text on your site as well as in the metadata associated with your site — but by establishing your business as an *authority*. I'll explain in a moment what that means.

If you're near a computer right now, I can show you what SEO has done for us. Go to Google and search for "custom printed curtains." To the right, you'll see sponsored ads — essentially, straight-up advertising. In the main column, the first few results are paid ads, indicated by "Ad" in a small box in front of the URL. These are what PPC gets you. Below these are the organic search results. I'm going to make the assumption that *heritageprinting.com* is number two in the organic search results (our usual position for this search phrase). Now, this is just one of the products we offer. You can search for any of our other items — we optimize our site to attract searches for over 200 keywords — and we'll show up in the top two or three organic search results. As a result of this postioning, we get thousands of people coming to our websites every week.

To identify the keywords to put to work for us, we have to think beyond what we, *in the industry*, think are important terms. We use a lot of jargon, like "wide format." Who aside from an industry insider uses that term? Initially, we had to think about what a person — often a person who isn't experienced at buying print — is searching for when they go online. We spend a lot of time researching and understanding what those phrases are so we can attract *only* the people who are buying the products and services we want to sell.

I said earlier that we do a lot of things beyond keywords in order to get high-ranking results. It's not just picking the right keywords. You also need to create domain authority (DA) for your website. This is basically a score that determines how high a given website will rank on a search engine results page. It's ultimately a gauge of the extent to which Google's algorithms consider a business to be a "thought leader." DA is highly technical, but in essence it requires not just including appropriate keywords and phrases in your site's content, but also updating your site regularly (like having frequent blog posts or a news page), including positive reviews from customers, maintaining traction on social media, and attracting ample site traffic. This is why a brand-new company won't leap to the top of Google's search results. It takes time to build an online presence and authority.

Now that we've spent all this time building DA, we get about 1,500 visitors to our site per week — and a good percentage of these have an urgent need. Our online traffic produces approximately 60 to 70 *new* project opportunities each week.

No More One-Off Orders

Here's what happens when you generate this kind of traffic and inquiry volume: Our hardest job has become interviewing the people who are coming *to us*. We don't say "yes" to every project. Instead, we carefully assess each opportunity to find out two things:

- Is the project truly a good fit for us? (volume, cost, revenue, fit, etc.)

- Is there an opportunity to do additional or repeat projects for this one customer?

So if one of our popular keyword phrases brings someone to us — say "retractable banner stands," "step and repeat banner stands," "red carpet banner stands," or "life-size cutouts" — it's likely this customer is hosting an event and may have other print needs related to it. It's our job to proactively ask questions that uncover their other print needs for this event and for the larger context of their business. After all, I'm not looking to sell one retractable banner stand; I'm trying to build a fruitful, lasting relationship with this customer. Getting found in Google search results is just the start.

This is where our staff comes in, and why I have been scaling up and hiring new employees. The people who answer our phones and field our online inquiries are critical. They are not salespeople. (In fact, we tripled our revenues in four years *without* having a "sales force.") They're also not "customer service representatives." They are "**project coordinators**." As such, they are the people who

Heritage's evolution from products to projects means taking on engagements that include a wide variety of components. At Hilton Supply Management's inaugural summit this year, Heritage decked out the venue from A to Z (left). For a new Hershey Corp. facility, Heritage installed brushed aluminum lettering in the lobby and wall wraps in the conference room.

take ownership of a job from initial fit-assessment through eventual delivery. They have the design and production knowledge – and the service training – to identify opportunities and talk customers through possibilities.

This approach allows us to focus less on selling products — a banner here, a poster there — and more on helping customers develop projects — an entire trade show booth or a complete office interior.

Hiring the Right Gun

When I first got serious about launching the Charlotte location and using the Internet to grow it, I made an investment in learning Internet marketing myself — up to 20 hours a week — on top of running the business. That became unsustainable for me, so I hired a valuable, dedicated resource.

As I mentioned, Kevin Smith helped me learn the ins and outs of Internet marketing. About three-and-a-half years ago, he came onboard full-time to grow our Internet marketing efforts. Kevin does more than just tweak keywords and keep up with Google. He manages the science and art of SEO for our company — *and* he coordinates our social media and does regular blogging on our websites, which contribute to our rankings. I hired this dedicated resource because I've learned that being truly effective at Internet marketing and SEO require a firm, long-term commitment. It's been invaluable to our success.

Amazing, Sustained Growth

After 30 years, business has shot through the roof. We have more than a thousand site visitors each week, and they convert to a growing number of serious leads that often become long-term relationships. We anticipate, for the foreseeable future, continuing to maintain a 25 to 30 percent annual growth rate.

I said at the beginning, I'm not out to create an empire. Nor do I want to grow just to grow. We have something that's really working and is bringing value to our clients — the many testimonials on our site and the five-star reviews on Google, Yelp!, and Facebook attest to that. And we're doing it well. In 2017, we won *three* Benny Awards, the highest honors possible in the annual Printing Industries of America's Premier Print Awards, a global print quality competition.

I think of business planning and strategy like this: We're moving from summit to summit. From these vantage points, we get a clear view of where our next destination is, and we can plot a course through the valleys and challenges to get there. This big-picture perspective enables us to see useful trends, deploy winning strategies, and set ambitious, attainable goals. And what will get us successfully from summit to summit is not just having a map, a growth plan, but the ability to handle whatever challenges come up during the journey. It's exciting. I'm telling you, I've been doing this for over 30 years, but I feel like I'm just getting started.

Joe Gass *is president and CEO of Heritage Printing & Graphics, with locations in Washington, D.C., Waldorf, Md., and Charlotte, N.C. He started working for the family business in 1987 and launched the company's wide-format and signage division in Charlotte in 2009. In addition to his clients, he is also helping making a difference in the lives of others outside the industry, including supporting an orphanage and helping to rebuild earthquake-damaged schools in Nepal. Connect via* gass@leadingprint.org.

Reduce Taxes and Improve Cash Flow

New Cash Accounting Rules Are a Boon for Print Industry

By Mark J. Nuzzaco, Esq.

The reduced corporate tax rates resulting from the new tax law (**Tax Cuts and Jobs Act of 2017, TCJA**) are a powerful stimulus to the domestic economy. But, they aren't the only benefit of the law. TCJA's new "cash method accounting" rules can help businesses minimize taxable income, reduce taxes, improve cash flow, and avoid onerous uniform capitalization (UNICAP) rules. These benefits can be transformational for a business.

Before TCJA, many businesses were barred from using cash method accounting. Specifically:

- C corporations (and partnerships that include C corporation) with average annual gross receipts of more than $5 million
- Businesses that maintained inventories and had average annual gross receipts of more than $1 million
- Certain other (non-manufacturing) businesses that maintained inventories with gross receipts greater than $10 million

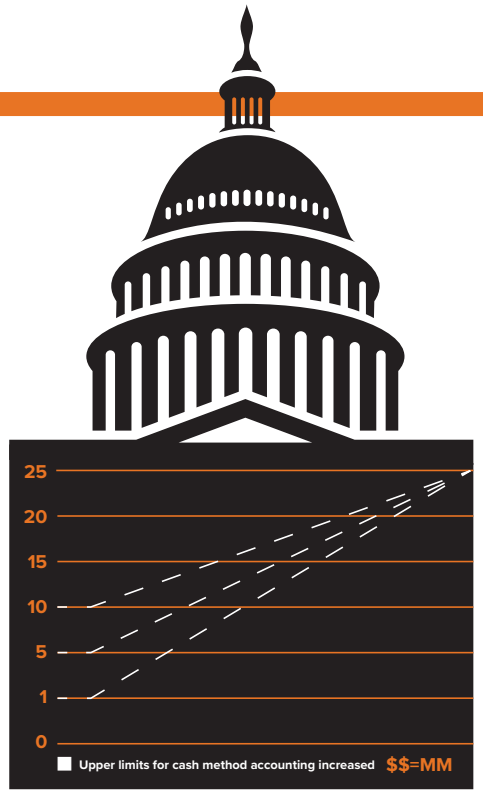
With TCJA in place, the Internal Revenue Service (IRS) has issued guidance (IR-2018-160, Aug. 3, 2018) that allows more businesses to use cash accounting by raising the "average annual gross receipts" limitation to $25 million, indexed for inflation (26 U.S. Code Sec. 448). TCJA does not affect cash accounting eligibility for businesses that were not restricted under prior law.

A business's "average annual gross receipts" is the average of its prior three years' gross receipts (including those of any related businesses). A business needs to make this calculation annually to determine eligibility. Additional rules apply to businesses not yet three years old; short taxable years; and the treatment of predecessor entities. See 26 U.S. Code Section 448 (c)(3).

The alternative to cash accounting is accrual accounting; each has its pros and cons. There is wide agreement that accrual accounting best reflects the true financial picture of a business, and thus bankers and investors will require it. However, it can cause cash flow and tax payment challenges for businesses with slow-paying accounts receivable since taxes may be due on income earned before payment is received. The method requires advanced accounting practices.

In comparison, cash accounting can offer greater control over the timing of income and deductible expenses, which can facilitate tax savings and improved cash flow. However, it doesn't track expenses with income as well as accrual accounting, especially with complex transactions. It's worth noting that a business using cash accounting for taxes can still use accrual accounting for financials.

According to the U.S. Census Bureau's *2016 County Business Patterns* data, there are nearly 24,000 commercial printing businesses in the United States, of which fewer than 200 have total annual sales greater than $25 million (source: 2017 *Printing Impressions* 400 List). So there are thousands of printing businesses that can potentially benefit from TCJA's expansion of cash accounting eligibility and benefits.



TCJA enables more businesses to use cash accounting by raising the "average annual gross receipts" limitation to $25 million.

Questions

This content is informational and not legal or accounting advice. Contact Mark J. Nuzzaco, APTech Vice President, Government Affairs, at *mnuzzaco@aptech.org.*

Resources

- **Webinar series: "Tax Reform for Print Businesses"** – printtechnologies.org/news-awards/news/webinars/TaxReform
- **"New tax law opens opportunities for metal fabricators"** – tinyurl.com/OppsForMetalFabricators
- **"Tax Reform Opens Up the Cash Accounting Method: Should You Switch?"** – tinyurl.com/ShouldYouSwitch
- **"Accounting Method Changes May Lead to Tax Savings"** – tinyurl.com/AcctMethodChanges
- **"TCJA Expands Use Of Cash Basis Accounting Method And More"** – tinyurl.com/TCJAExpandsUse

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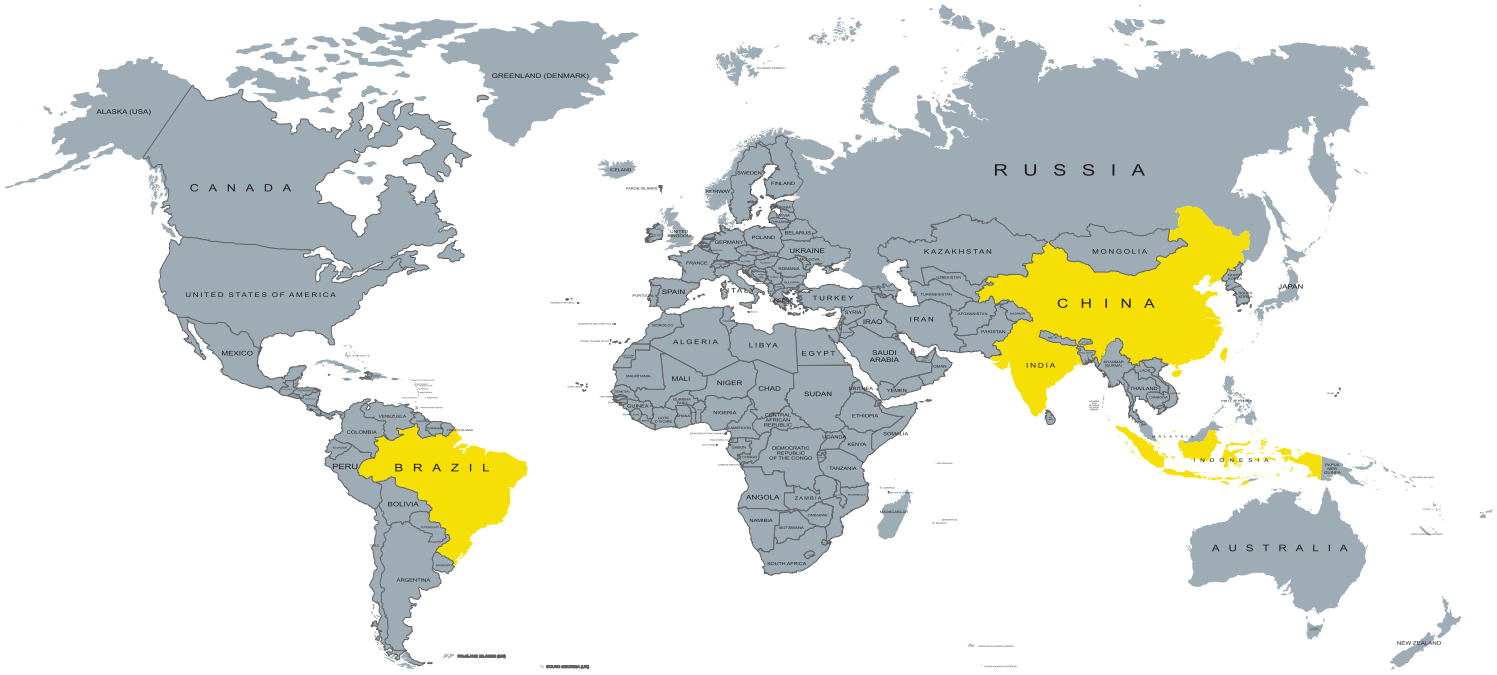
Yes, you! Global Programs shows the way.



In today's global economy, it's possible for a business to expand its reach to just about any place on the planet. Print is no exception. If you are looking at foreign growth markets with an eye toward building partnerships or expanding your presence, there are challenges to navigate, including languages, local regulations, business cultures, and geographical logistics. The Association for PRINT Technologies (APTech) Global Programs helps print industry companies overcome these barriers and effectively assess overseas opportunities.

A keystone of APTech's Global Programs are its **trade missions.** Several times each year, APTech hosts industry executives on visits to emerging markets, including China, India, and Indonesia. APTech's global team directors take participants to regional trade shows and networking events and introduce them to potential buyers, investors, representatives, and partners. Mission trips typically include guided visits to local printing/packaging facilities and cultural excursions.

Raymond Duval, Director of Solutions Sales at Ultimate TechnoGraphics, a veteran of three APTech trade missions, says that for a manufacturing company looking to enter a new market or country, trade missions are invaluable. "The time savings are tremendous when it comes to meeting the right people," says Duval. "As a result of our first visit to India, we concluded a strategic reselling agreement. And through the guidance of APTech's local resource, we continue to grow our business there."

APTech's **Global Concierge Program** then provides extended and ongoing support for organizations through its local representatives in Brazil, China, India, and Indonesia. These global teams help companies leverage partner collaborations with U.S. Commercial Services, respective countries' trade authorities, and in-country business associations. They also work with the U.S. company's agents in these countries, providing regular reports on their lead generation, sales calls, and marketing activity. According to Marco Gandasubrata, Director of APTech (NPES) Indonesia, "The APTech international team provides regional knowledge of the print and packaging markets that would be difficult to find anywhere else."

Get Involved

The APTech trade mission schedule for 2019 as of this writing includes trips to **Greater Noida, India** (February 1-6); **Mexico City, Mexico** (March 5-9); **Guangdong, China** (April 5-9); **Bangkok, Thailand** (September 18-21); and **Jakarta, Indonesia** (October 30-November 2).

Learn More

APTech Global Programs are open to all printing industry businesses. Visit *printtechnologies.org/global*. For more information, contact Pernilla Jonsson, *pjonsson@aptech.org*.

Amy Miller

Diversity: It's a Bottom-Line Issue

Amy Miller on the value of female leadership

By Amy Miller

As the CEO of two printing companies, people often ask me what it means to be a woman at the helm in a male-dominated industry. As I've thought about it, the answer is: more diversity – but not in the ways that some might assume.

Diversity is not an easy topic to talk about. Especially right now, with the rise of the #metoo movement and other flashpoints across the country and around the world.

It's a topic many CEOs and business owners don't want to touch. However, diversity isn't just an ethical issue. It's a bottom line issue, too. Studies have shown that diversity has a documented tie to profitability. For those of us in the C-Suite, this is something we can't ignore. Profitability is part of our mandate. So what specific, identifiable steps are we taking, both now and in the future, to be intentional about diversity?

Let's look at the data. Although I believe that we gain benefits from all aspects of diversity, not just gender, some of the clearest numbers come from studies on women in leadership.

According to a recent study by human resources consulting firm Development Dimensions International (DDI), companies in which women hold at least 30 percent of leadership roles are 1.4 times more likely to have sustained, profitable growth (*tinyurl.com/ForbesFiveWays*).

A study of 21,000+ public companies by the Peterson Institute, a U.S. think-tank, and EY (formerly Ernst & Young), a professional services firm, found that companies with at least 30 percent female leadership added six percentage points to their net margin compared to those without (*tinyurl.com/FTFemaleLeaders*).

Early in 2018, McKinsey, a management consulting firm, found that companies in the top 25th percentile for gender diversity on their executive teams were 21 percent more likely to experience above-average profits. This is up from 15 percent in 2015 (*tinyurl.com/ForbesMoreEvidence*).

Diversity of opinions and approaches has always been good for business. At Castle Press Printing and Marketing (Los Angeles, CA) and Trinity Graphics (Cerritos, CA), where I serve as CEO, I see that first-hand. I know that, as a woman, I have brought a new way of doing things that has benefited both companies.

Photos by Luke Payne

Amy Miller meets with two employees in her mentoring program at Trinity Graphics. The program is a win-win opportunity, wherein company leadership and employees have the chance to learn from each other.

Here's the story of how I came to take on these roles. Throughout the 25 years of our marriage, my husband, Rob, had been the COO or CEO of the family-owned printing businesses into which I married. In 2013, when Rob was CEO and I was marketing manager of Lester Lithograph (now Castle Press), I went back to school and earned an MBA from the UCLA Anderson School of Management. In late 2015, we purchased Castle Press, a woman-owned company. Suddenly, we had a decision to make. Do we drop the woman-owned business certification? Or do we find a female CEO? If the latter, should that be me? In January 2016, I took on the role of CEO. Early in 2018, we purchased Trinity Graphics, and I became CEO there as well.

Since assuming these roles, I have seen that I *do* lead differently than my male counterparts. Many of these differences are consistent with what the studies are finding. For example, the DDI study cited earlier outlines five ways that women lead differently than men and that positively impact the bottom line. Let's take a look at each and how they have impacted our companies.

"Studies have shown that diversity has a documented tie to profitability. For those of us in the C-Suite, this is something we can't ignore."

1. More data-driven hiring and promotion decisions

For me, team development is a top priority. One of the key changes I've implemented at both companies is our interview process for new hires. We created an interview worksheet based on the "5Cs" (character, competence, chemistry, contribution, and calling) developed by the C12 Group, a business executives' network, as well as the "Hungry, Humble, Smart" framework for building strong teams developed by Patrick Lencioni, author of the groundbreaking book *The Ideal Team Player: How to Recognize and Cultivate the Three Essential Virtues*.

The goal of applying these principles was to help us move beyond the usual hiring preferences and biases and truly recruit the best people for our teams. The end result has been very different hires than we might otherwise have made without these approaches.

For those not familiar with the 5Cs, they were developed by the C12 Group to help companies develop a "predictive hiring process." The concept is to assess candidates based on five distinct, strategic attributes instead of simply relying on our assumptions and intuition. Here's a closer look at the 5Cs as defined by C12:

Character: The features and traits that form a person's core nature. This might include honesty, courage, or being a team player.
Calling: A strong compulsion toward a particular way of life or doing things. For example, someone who feels compelled to always do things with excellence.
Competence: This is the person's fit for the job based on his or her training and life experience.
Chemistry: The intangible quality of being able to "fit" within the existing team.
Contribution: What this individual will be able to contribute both to his or her individual team (for example, production or sales) and to the company as a whole.

An effective interview process based on exploring these attributes can lead to very different hires than evaluating skills alone. As a side note, C12 Group has also created "Six Disciplines of Predictive Hiring," which I also highly recommend.

Lencioni's Hungry, Humble, Smart is a complementary approach. He argues that an ideal team player embodies these three virtues:

Humble: Looks out for others and not just for his or her own self-interest. In a team environment, this person puts the team first.
Hungry: This person will be proactive. Her or she won't sit back and wait for someone else to come up with ideas or solutions. Instead, takes initiative.
Smart: This person is intuitive and understands how to work and interact well with others.

The 5Cs and the Hungry, Humble, Smart framework together help us ask the right questions, such as, "Is this person a good fit for the core values of the company?" and "How will this person interact with the rest of the team?" This has resulted in unexpected hires that have been real wins for our companies.

2. Tendency to seek out overlooked talent

While we don't have quotas related to the traditional understanding of diversity (gender, ethnicity, age), one of the interesting and natural results of hiring this way has been a more diverse team. Our hiring practices have opened our eyes to candidates that don't check the usual, traditional boxes we've all learned to screen for. An example is a recent hire we made in our pressroom.

We had narrowed our candidates to two. The first seemed like the more obvious choice: He had more experience and was better with color. However, as we went through our worksheet, the more unexpected candidate rose to the top. While our first candidate had the right technical knowledge, his answers revealed that he wasn't onboard with our core values and wasn't as strong of a team player. The second candidate had less experience, but his answers suggested that he is teachable and has the right core values. He also has a LEAN certification. We hired him, and sure enough, he has learned quickly and has a real eye for bringing efficiencies to the shop.

"Part of the value I bring to our companies is always asking whether there's a better way."

Another example comes from our sales department. At first blush, one candidate didn't seem like someone the management team would typically have chosen. She's a sales veteran, but she's new to the print industry. While she doesn't have print experience, she is aligned with our core values, is a hard worker, and is a team player. She is gaining her footing in the industry and has boosted the morale of the team just by being here.

The practice of seeking out overlooked (or unconventional) talent is already proving to be a win for us.

3. Building knowledge through mentoring

Mentoring has always been important to me. The employees at Castle Press are older and more established, making mentoring less practical there, but the younger demographic at Trinity Graphics has created great opportunities for me to develop a mentoring program.

When I started this initiative, I didn't have a roadmap. But it's been said that if you don't have tolerance for failure, you won't try anything new. So I tried it. I asked for volunteers to participate in the program, and now these mentees and I meet once a week. We get together and talk over business issues, like leadership and work-life integration.

From me, our mentees learn what it takes to run a company, the value of being mission-minded, and about various leadership issues. From them, I learn how I can better understand their generation. I want to employ more people their age or younger. I have the opportunity to ask: What would

make Trinity an ideal workplace for them? What would prompt them to seek a job elsewhere? Or even outside the industry? Can they help me understand how to capture and retain other Millennials (and post-Millennials)?

I've learned important things from this program that impact how we recruit and train. I discovered that nearly all the younger people are in the process of moving. A lot of us, the older generation, are settled and want to stay in a job long-term. Younger employees are open to moving across the country or taking time off to travel. They want flexible schedules. We've never required all of our employees to work nine to five as long as they get their work done, so this doesn't affect our current policies. However, it does reinforce that work schedule flexibility is a strategy that helps us retain existing employees and that makes us more attractive to future hires.

"From me, our mentees learn what it takes to run a company. From them, I learn how I can better understand their generation."

We also learned that many Millennials are not necessarily long-timers. In fact, recent research from global staffing firm Robert Half found that 75 percent of Millennials (those aged 18-34) think that "job hopping," defined as having at least five positions within 10 years, may be good for their careers (*tinyurl.com/LaddersJobHopping*).

This breaks my heart. I'd love for these talented young people to live out their careers with us, but that's not the way they think. This means that I'm regularly thinking about recruiting, training, and cross-training. We have to make sure that more than one person can do each job. This is always important, but with this younger generation, it's that much more critical. We have to constantly focus on developing people.

The more I learn from our mentees, the better positioned we are to capitalize on the tremendous talents and enthusiasm of our younger employees.

4. Seeking "out of comfort zone" opportunities.

Part of the value I bring to our companies is always asking whether there's a better way. Always making sure we don't do something only because we've always done it.

The changes I made to our hiring practices are a case in point. Initially, I received a lot of pushback from the rest of the management team on that strategy – *resistance to change*. But it has been a very positive change. And I'm constantly challenging our team. Right now, we're talking about a new way to structure our sales compensation. Jobs are more collaborative than they used to be. It takes an entire team to get them done on time and done well. What kind of compensation structure works best

in this environment? How do you reward the team member who writes the code for the job setup? Or the CSR production team and pressroom for getting the job done on time? How do we incentivize a whole team rather than just the salesperson who brought in the job?

This is another area where mentoring pays off. The younger generation has different priorities than other generations, so we're discussing creative incentives that don't always have to do with pay. Some younger sale reps would rather have time off, or if the team meets the company sales numbers, maybe the whole team and their families take an excursion.

The compensation structure may even look different at each of our companies. At Castle, we have more experienced sales reps who are happy with the full commission model. Do we need different compensation models for each company? Or, is it better to offer multiple structures at each company and allow employees to choose?

Another way we're pushing outside of our comfort zone is looking to invest in nonprofit missions in disadvantaged areas. Not only do I believe this is the right thing to do, but it's part of engaging the younger generation. Younger employees believe it's important to be good global citizens, and they feel more positive and engaged with companies that do good. In fact, research of 2,000 individuals conducted by *Fortune* found that nearly two-thirds of Millennials were more likely to want to work for a company that gave to charity over one that did not (*tinyurl.com/FortuneMillennialsCharity*). In response to these priorities, we're looking into programs like job training or financially supporting schools in disadvantaged communities. One of my mentees is investigating supporting a school for lepers in Nigeria.

We want these talented young people working f or our industry, and more specifically, working for us. Programs like these make our companies more attractive.

5. Incorporation of more diverse perspectives

Companies benefit when they draw in multiple voices, eyes, and perspectives. At Castle, one of the ways I have implemented this is by having weekly "feedback feed-forward" meetings with our supervisors. Every Friday, we look at all of the projects we completed that week and ask, "What are the projects that went really well this week? What could we do better next time?"

One of the persistent challenges we've talked about is how to best respond to clients who don't have print experience and ask us to "match the sample." As printers, we understand the complexity of this request, especially as it relates to jobs that are moving from offset to digital (or vice versa), but our customers often don't. If the salesperson doesn't know the right questions to ask, frustration and unrealistic expectations can result.

Based on one Friday discussion about matching samples, one of our supervisors came up with a solution: Give the sales reps a set of yellow tags. When a customer asks us to "match the sample," the rep attaches a yellow tag to the sample to be matched. Then he (or she) writes on the tag what's truly important to the client. Is it the blue that matters most? The yellow? The skin tone? This way, everyone on our team knows what the specific targets are and why.

Feedback Fridays has become a critical tool for brainstorming, solving problems, and tapping the collective creativity of our team. It's living proof that we are all better together.

"Feedback Fridays has become a critical tool for tapping the collective creativity of our team. It's living proof that we are all better together."

What's Next?

As a CEO, I want quantifiable results, but we are in the beginning stages of many of these initiatives. Here are the results we can see already. We are building a stronger, more diverse team by hiring employees that might have escaped our notice before. As we improve as a team, our service and products improve and create better outcomes for our customers. Our customers rest assured that we are committed to providing the best value. And that we're going to keep improving and pursuing excellence.

Already, our teams come from different backgrounds, cultures, and ages, and we've seen how this makes for better decision-making. It takes time to build these kinds of team. It takes more conversation. But it also allows for greater creativity at a time when we need to come up with new ideas to continue to grow the company, push forward with improvements, and engage a new generation. I firmly believe that with this investment will add value to our marketplace, and this focus on diversity will in time lead to an even healthier bottom line.

Amy Miller *is CEO of Castle Press Printing and Marketing in Los Angeles, CA, and Trinity Graphics in Cerritos, CA. Her willingness to test norms and try new things is bringing not only change but infectious enthusiasm to both companies. Connect via* miller@leadingprint.org.

Start Printing Money: Digital Packaging and Labels

Consider this scenario: A global consumer packaged goods (CPG) company with a strong presence in personal care decides to expand into private labels for hotels and restaurant chains. The company's aim is to broaden its business footprint and revenue. To execute, the company needs more print jobs with shorter custom runs for every hotel and restaurant — each with different graphics, content, logos, and sometimes, languages.

What makes this initiative feasible? Digital printing, wherein short press runs and advanced label technology enable more cost-effective versioning.

The outcomes? While this company's traditional market in B2C retail sales was flat, digital printing enabled it to enter a new market segment, selling custom B2B products, and, consequently, increase its total revenues. Meanwhile, the printer gained a new, profitable job.

There are many such examples and opportunities with **digital packaging printing**. The Association for PRINT Technologies (APTech) PRIMIR Research Unit commissioned the International Data Corporation (IDC) to study this growing market in the United States. The study results demonstrate that there is a significant market opportunity for using digital print within packaging printing.

The fact is, packaging is a core component of today's customer experience, especially for consumer goods. For a brand, the term "label and packaging" can mean many things. It can be an outer box, inner carton, wrapping, stickers, labels, instructions, operating guides, the sticker on the tongue of a shoe, marketing collateral attached to the product, and so on. A single product SKU can include upwards of 10 types of labels and packaging. A brand's packaging needs are vast and complex with a variety of considerations — the largest of which are cost reduction and time to market. Brands are eager to get their products into the hands of consumers as quickly and cost-effectively as possible, and they're interested in technologies and processes that can help them do this — namely by improving automation and optimizing their supply chain.

Due to its speed and efficiency, digital printing allows manufacturers to respond quickly to customers' evolving demands while also improving the supply chain, reducing warehousing costs and waste, and improving time to market. Its benefits include:

- Superior economics when it comes to short runs, based in part on reduced downtime for changeovers
- Potential for printing on demand in a just-in-time manufacturing process
- Potential to print in a more distributed fashion closer to a given manufacturing line
- Reduced warehousing needs for pre-printed products or stocks
- Reduced paper waste and related waste tax
- Customization and versioning opportunities

In terms of market opportunity, IDC estimates that digital printing output currently has less than 1 percent of total packaging volume across labels, folding carton, flexible, and corrugated.

Additionally, digital is still in its beginning stages with a tiny installed base of equipment and high compound annual growth rate (CAGR) growth trajectories. IDC estimates that over 900

digital packaging presses have been sold in the United States in the last 10 years, and that number is expected to grow to nearly 1,600 presses by 2022. These factors present a significant opportunity for printers.

As with any capability, printers considering expanding into digital packaging printing must consider the challenges as well. Beyond the usual ones, such as capital investment, there are specific challenges, including higher ink costs, the need for MIS systems that can keep pace with faster digital print jobs, and, typically, higher end product costs. Ultimately, it is key for printers to educate customers and print buyers about "what is possible" with digital packaging printing and about the net cost of these products. That is, the total cost of a digitally printed piece is tempered by supply chain benefits and sales improvement for the brand.

The study concludes that digital print can impact many positive business outcomes for the brands and manufacturers of goods, but it's not a magic bullet. Digital can be useful as a *targeted* solution. It can thrive alongside traditional technologies to create a hybrid environment for your business — an environment in which you have options to sell to your customer.

PRIMIR Research

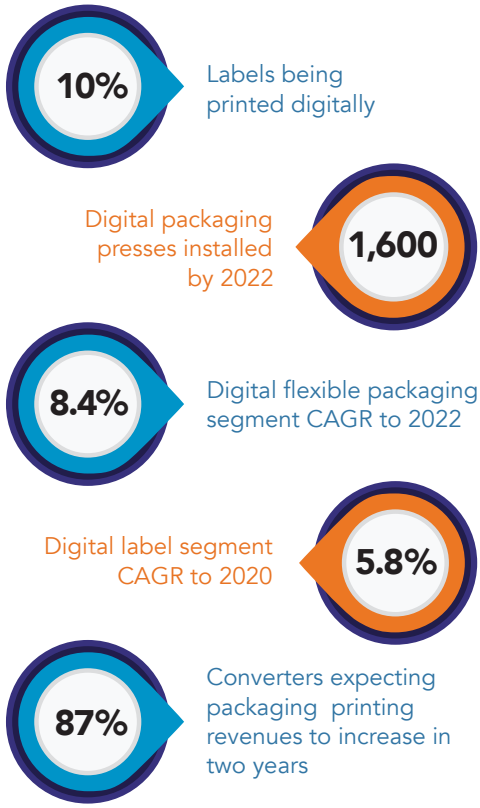
This information is excerpted from the PRMIR research study, "Breadth of Press Offerings for Digital Packaging Printing." This recent study was produced by the Association for PRINT Technologies (APTech) PRIMIR Research Unit in collaboration with the Association for Packaging and Processing Technologies (PMMI). The research was conducted by International Data Corporation (IDC).

The study examines opportunities for the digital packaging press market within the United States across key segments, including labels, folding carton, flexible, and corrugated. The report provides quantitative (e.g., market sizing and forecast), as well as qualitative (e.g., brand owners' and packaging printers/converters' input and related case studies) data for consideration. It also includes a technology roadmap and overview of key vendor products.

Get More

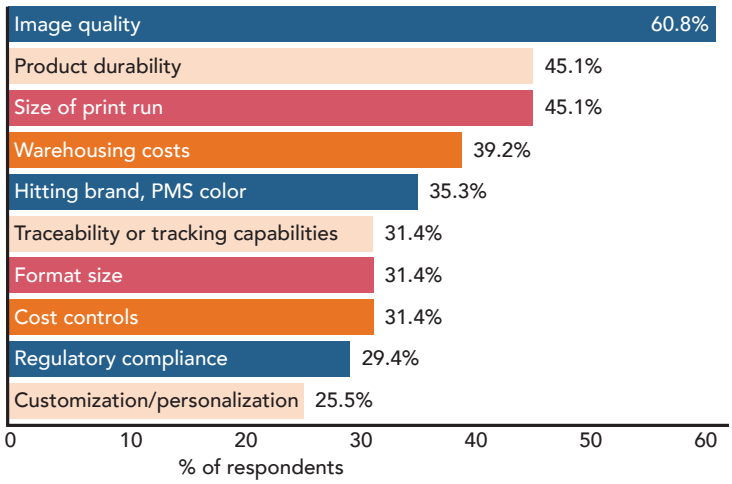
PRIMIR research studies, including the balance of this one, are available to APTech members at *primir.org*. For more information, contact Rekha Ratnam at *rratnam@aptech.org*.

At a glance

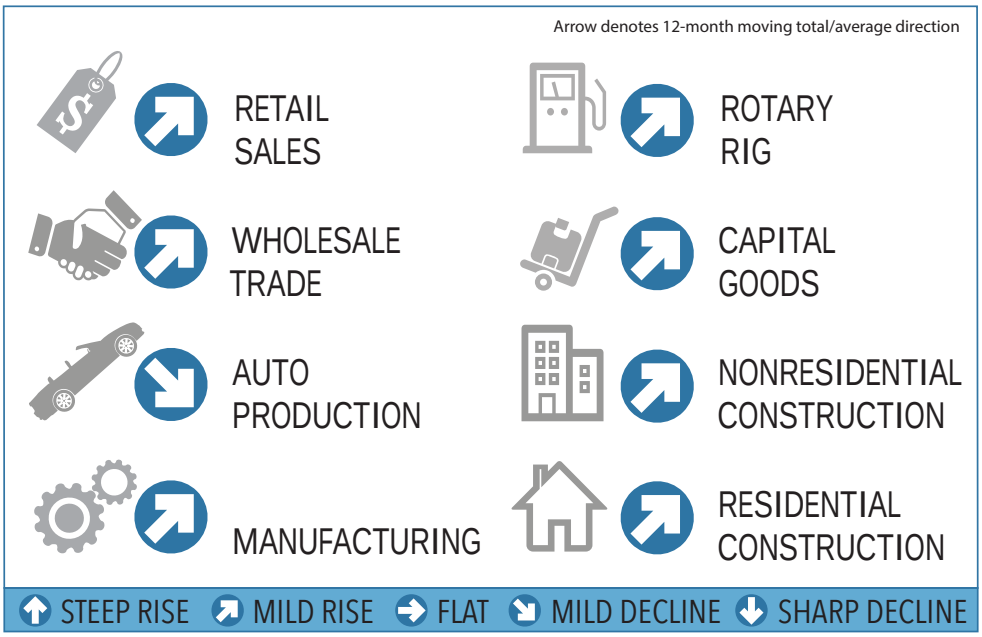


Top 10 Factors Influencing the Purchase of Label and Packaging Printing, 2018

(a survey of 51 brand owner/manufacturing decision makers)



Economic Snapshot



Macroeconomic Outlook

- U.S. Total Industrial Production during the 12 months through September was up 3.8% from the same period one year ago. The three major segments of the industrial economy are expanding at accelerating rates. U.S. Total Manufacturing Production, the largest segment, was up 2.5%.
- We expect Industrial Production to rise into the middle of this year. Activity will then decline into early 2020, and production will grow through the remainder of that year.
- As we approach the peak of the business cycle, firms should ensure that they are not in denial over business-cycle decline. Take caution not to overinvest in segments that will contract this year. Instead, build up your cash reserves to better position your company to weather a weaker 2019 and to invest for 2020.
- Exports will likely contribute to slowing the rate of growth for the macroeconomy. Up 8.6% on a year-over-year basis, Exports are currently growing at an accelerating rate but will transition to a slowing growth trend as a stronger dollar and reciprocal tariffs from U.S. trade partners discourage foreign consumption of U.S. goods.

Industry Analysis

Manufacturing

- Total Manufacturing Production was up 2.5% in September, from a year ago.
- Production is growing at an accelerating pace.
- Much of the manufacturing sector will contract in 2019.

Capital Goods New Orders

- New Orders were up 7.4% in September, from a year ago.
- Business-to-business activity will rise through the first half of 2019.
- The pace of growth for New Orders tentatively transitioned to a slowing growth trend.

Retail Sales

- Retail Sales were up 5.4% in September, from a year ago.
- Retail Sales will grow through at least 2020.
- The pace of rise for Retail Sales will slow through the majority of 2019.

Get More

This data is excerpted from the *APTech Advisor*, a quarterly report produced in conjunction with the Institute for Trend Research (ITR). APTech offers a top-level report to all members and a detailed report to members participating in our market data program. Visit *tinyurl.com/aptechadvisor.*

Leading Indicators

- The U.S. Total Capacity Utilization Rate supports our expectation that Industrial Production will grow at an accelerating pace in early 2019.
- The U.S. Leading Indicator is signaling that accelerating growth could persist through the first half of 2019.
- The U.S. Purchasing Managers Index poses a downside risk to our outlook and suggests that slowing growth could take hold at the start of this year.

	1Q19	2Q19
US Total Capacity Utilization Rate	●	N/A
US Leading Indicator	●	●
Purchasing Managers Index	●	●

Green denotes that the indicator signals cyclical rise for the economy in the given quarter. Red denotes the opposite.

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For more information contact Pernilla Jonsson at pjonsson@aptech.org, or 703.264.7200.

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