



2019 STATE OF THE INDUSTRY REPORT

***ALL OF THE INFORMATION PRESENTED HERE IS
A SNAPSHOT OF 2019 LOOKING TOWARDS 2020**

MANAGEMENT INFORMATION COMMITTEE

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- **DARLENE RADOMSKI** SUN CHEMICAL
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- **JOHN SERGEANT** MODERN PRINTING COLORS
- **BILL MCDERMOTT** INGEVITY
- **DAVE GRABACKI** KEIM-ADDITEC
- **PENELOPE HOLLAND** SUN CHEMICAL
- **SAORI NGUYEN** INX, INTERNATIONAL
- **GEORGE FUCHS** NAPIM
- **JOHN COPELAND** NAPIM

SOURCE DATA FOR REPORT

- **NAPIM OUTLOOK SURVEY**
 - **COLLECTED ONCE A YEAR IN JANUARY FROM MEMBERS**
- **U.S. COMMERCE DEPT., BUREAU OF LABOR STATISTICS, OSHA**
- **NAM – NATIONAL ASSOCIATION OF MANUFACTURERS**
- **PIA -- PRINTING INDUSTRIES OF AMERICA**
- **YAHOO FINANCE**
- **BUREAU OF ECONOMIC ANALYSIS**
- **KFF EMPLOYER HEALTH BENEFITS SURVEY, 2019**
- **NAPIM**



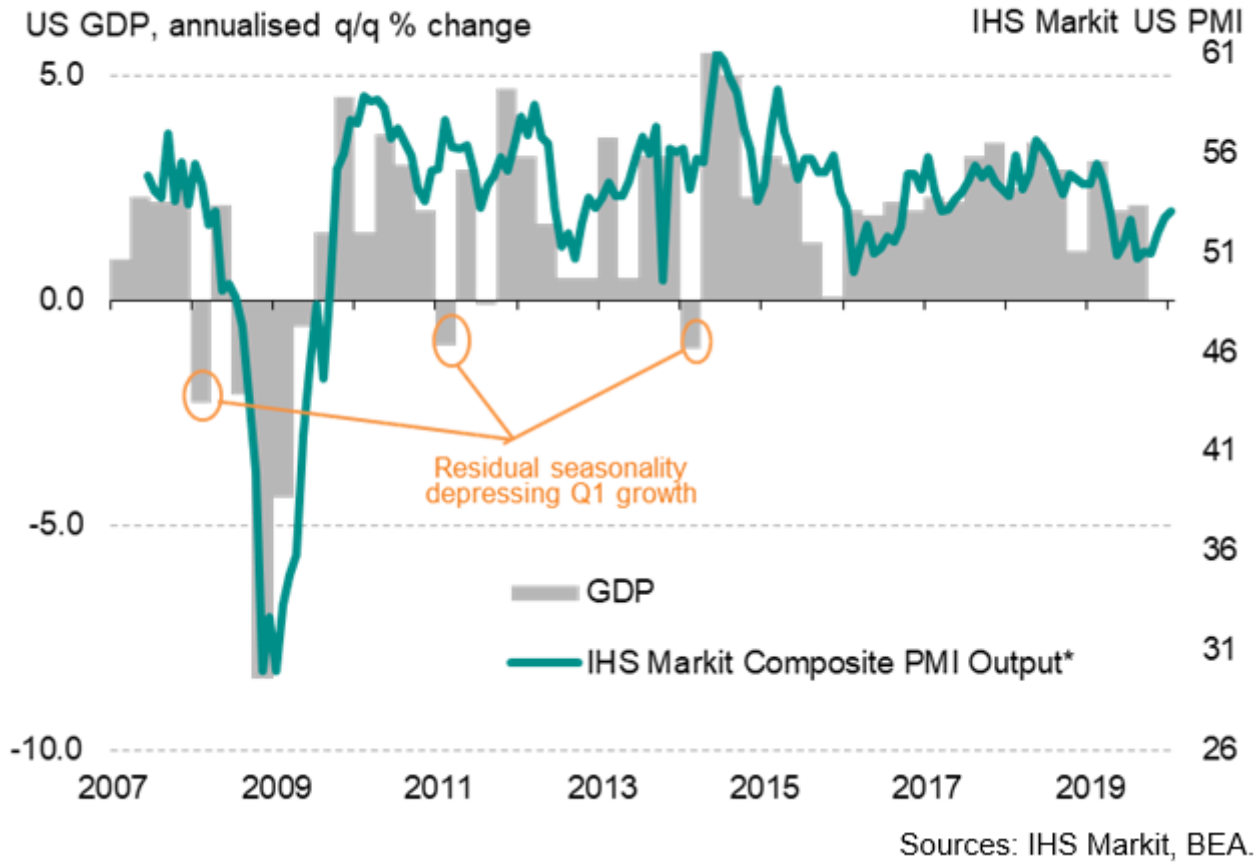
The professionals in the Center for Print Economics and Management department offer a variety of products and services that help our members enhance their growth, efficiency, and profitability through up-to-date industry information, articles, advisories, and statistics addressing important industry issues.

REPORT ELEMENTS

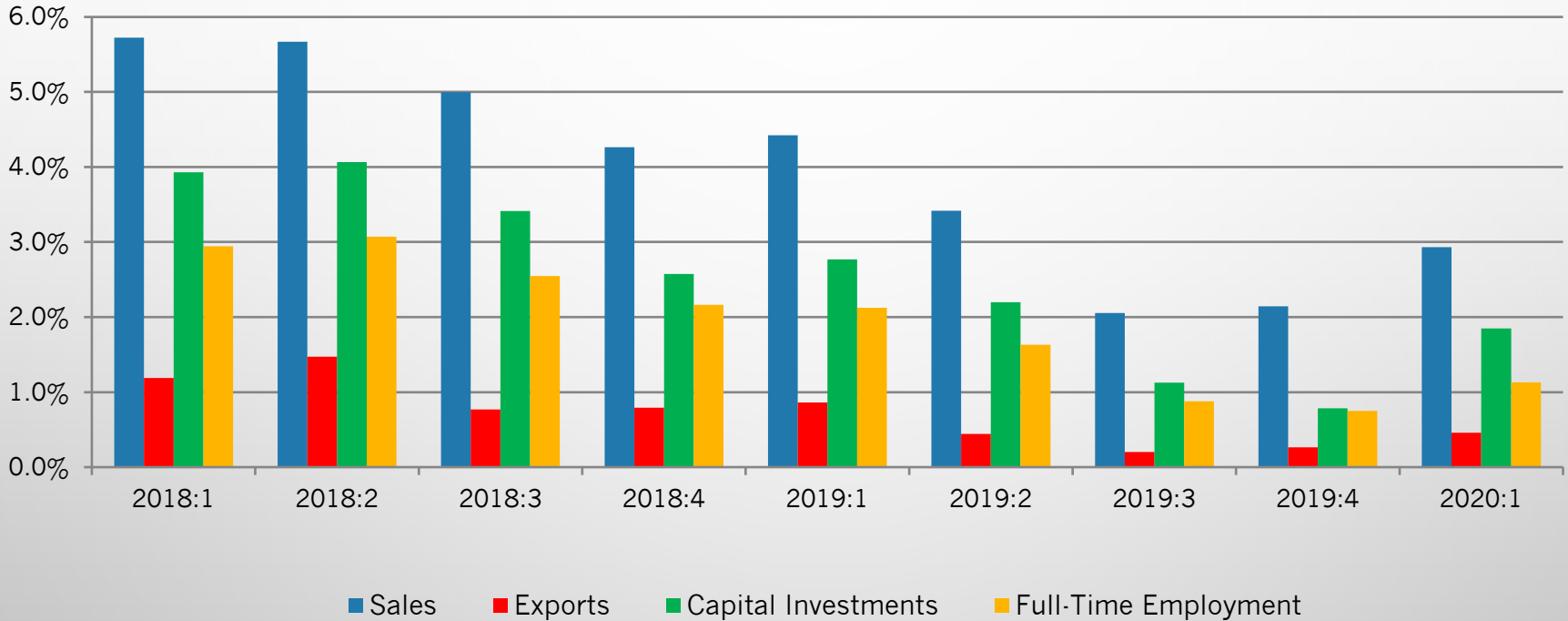
- GLOBAL AND INDUSTRY ISSUES
- REVENUE AND GROWTH
- PROFIT
- END USE MARKETS
- FOREIGN TRADE
- EMERGING ISSUES
- GOVERNMENT
- QUESTIONS AND COMMENTS

GLOBAL AND INDUSTRY ISSUES

IHS Markit US composite flash PMI and GDP



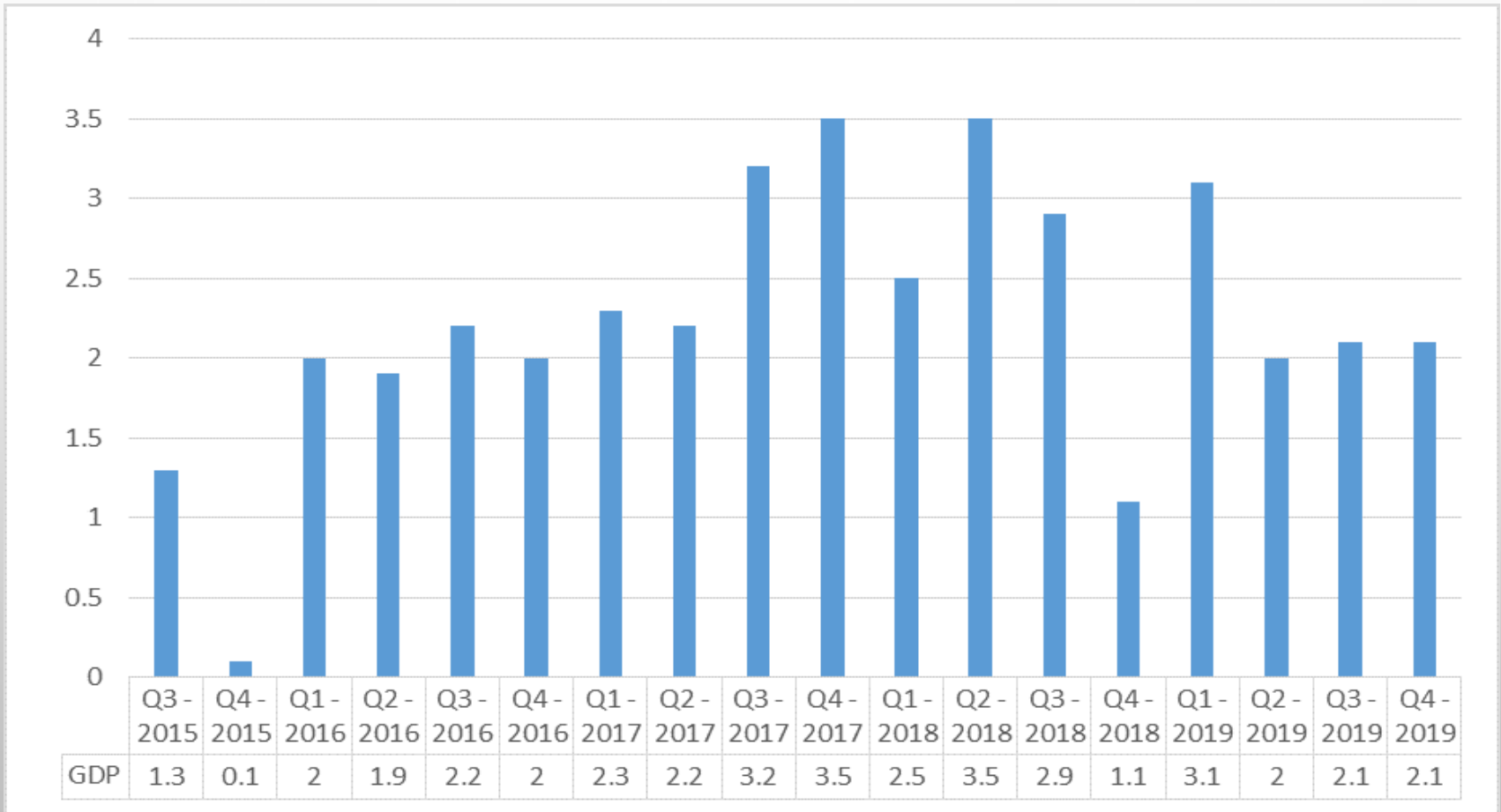
EXPECTED GROWTH OF MANUFACTURING ACTIVITY FIRST QUARTER 2018-FIRST QUARTER 2020



Avg. 12-Month Growth Rates
Sales: ↑ 2.9%
Exports: ↑ 0.5%
Capital Investments: ↑ 1.9%
Full-Time Employment: ↑ 1.1%

Source: National Association of Manufacturers

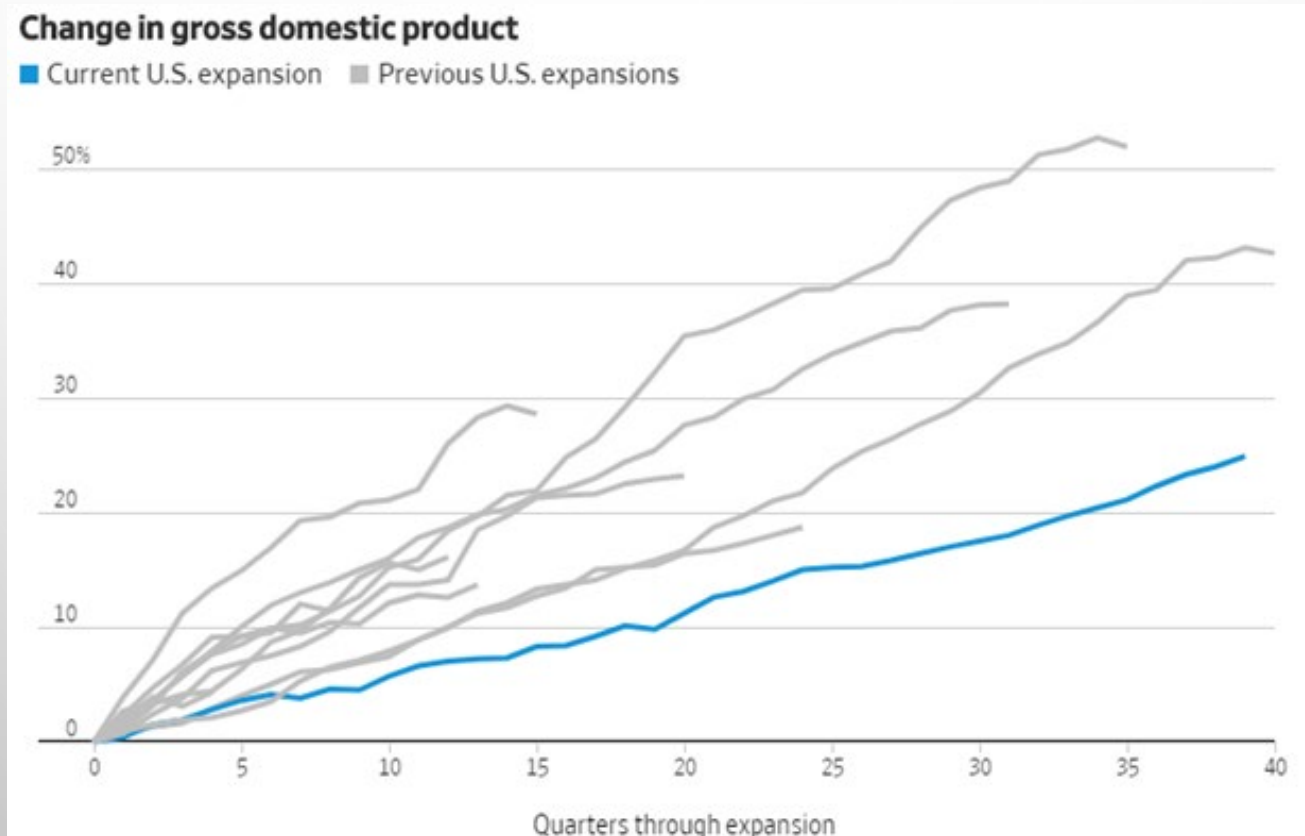
REAL GROSS DOMESTIC PRODUCT



Source: Printing Industries of America



GDP EXPANSION



Source: Printing Industries of America

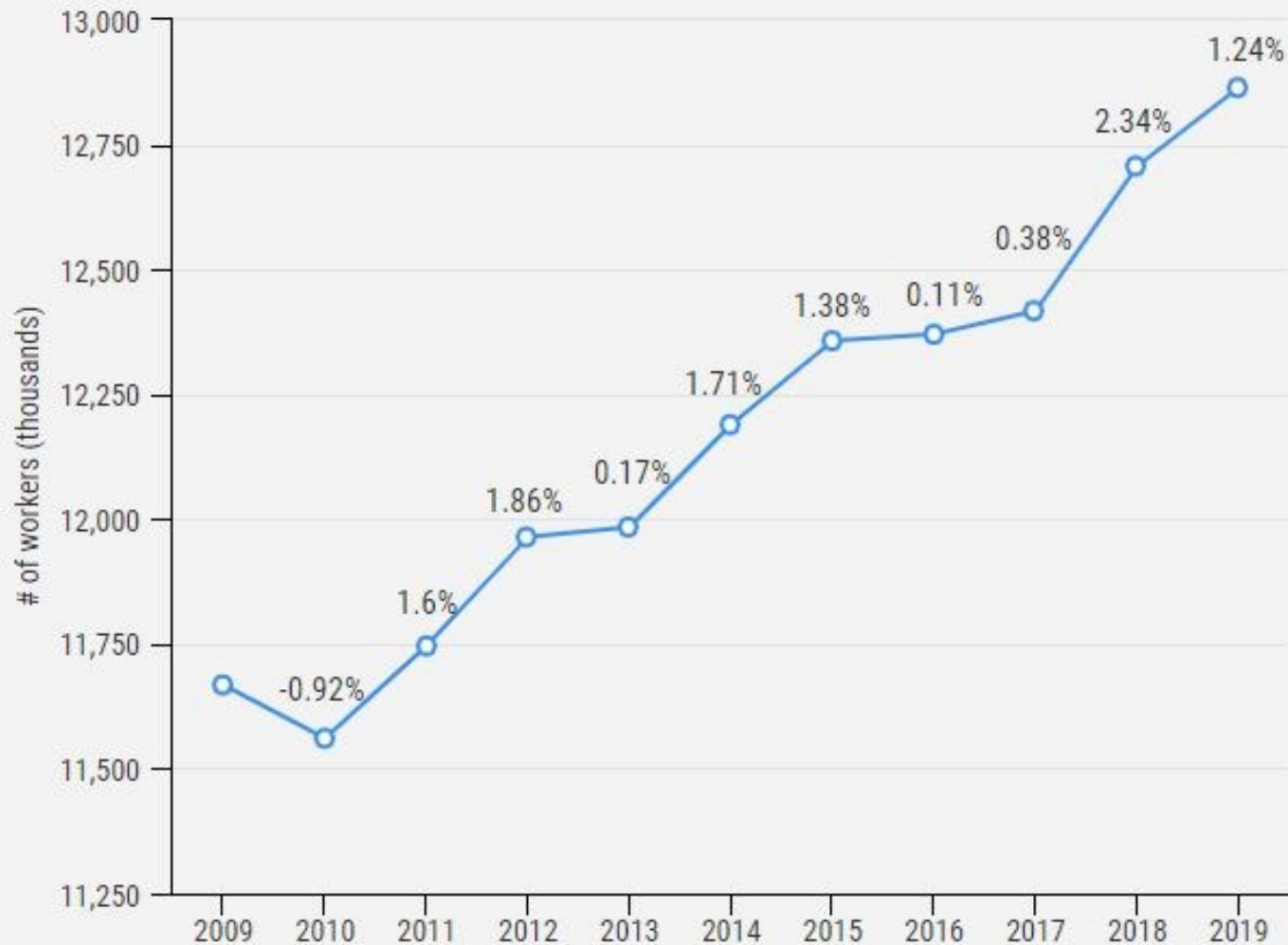
NAM MANUFACTURERS' OUTLOOK SURVEY

FIRST QUARTER 2020

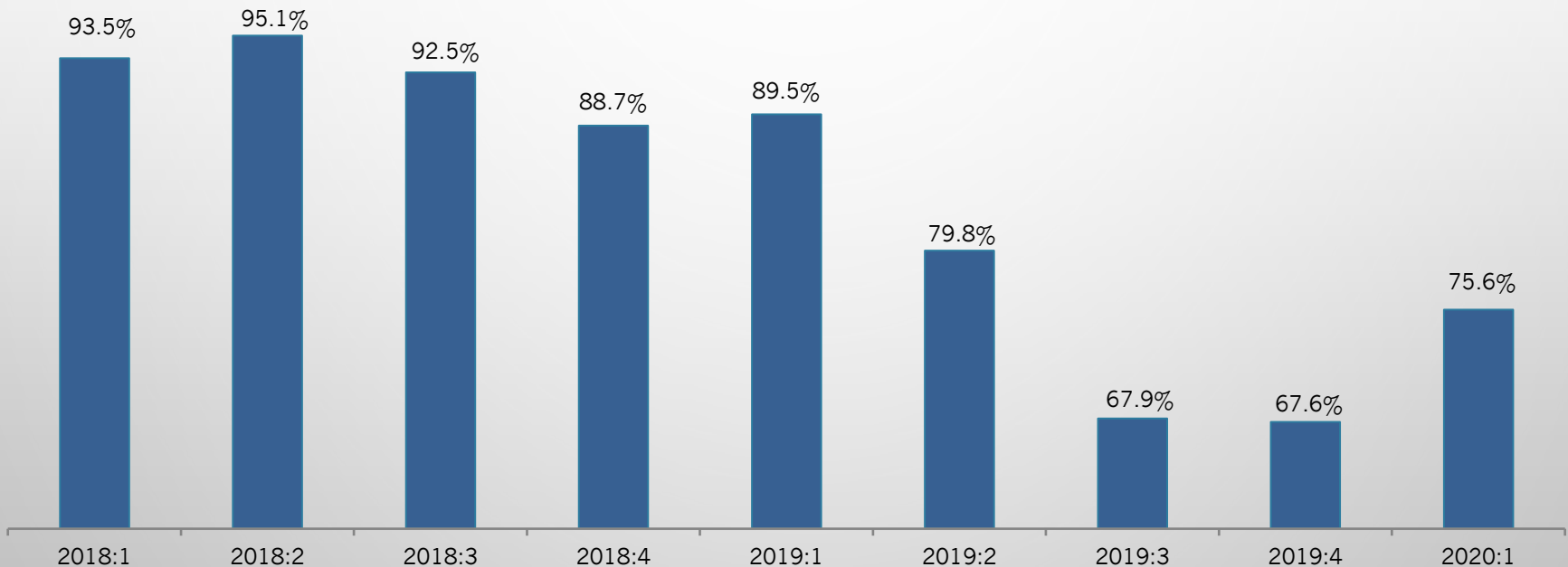
MARCH 18, 2020

<p>Percentage of Respondents Positive About Their Own Company's Outlook</p> <p>75.6% <i>(December: 67.6%)</i></p> <p>Small Manufacturers: 78.3% <i>(Dec.: 73.3%)</i> Medium-Sized Manufacturers: 82.0% <i>(Dec.: 72.3%)</i> Large Manufacturers: 63.6% <i>(Dec.: 55.8%)</i></p>	<p>Overall Facts About the Survey</p> <p>Number of Responses: 365 In the Field: Feb. 14 to 28, 2020</p> <p>Small Manufacturers: 83 responses Medium-Sized Manufacturers: 172 responses Large Manufacturers: 110 responses</p>
	<p>NAM Manufacturing Outlook Index¹</p> <p>50.5 <i>(December: 45.0 – revised)</i></p>
<p>Expected Growth Rate for <u>SALES</u> Over the Next 12 Months</p> <p>↑ 2.9% <i>(December: ↑ 2.1%)</i></p>	<p>Expected Growth Rate for <u>PRODUCTION</u> Over the Next 12 Months</p> <p>↑ 2.8% <i>(December: ↑ 1.9%)</i></p>
<p>Expected Growth Rate for <u>FULL-TIME EMPLOYMENT</u> Over the Next 12 Months</p> <p>↑ 1.1% <i>(December: ↑ 0.8%)</i></p>	<p>Expected Growth Rate for <u>EMPLOYEE WAGES</u> Over the Next 12 Months</p> <p>↑ 2.1% <i>(December: ↑ 2.1%)</i></p>
<p>Expected Growth Rate for <u>CAPITAL INVESTMENTS</u> Over the Next 12 Months</p> <p>↑ 1.9% <i>(December: ↑ 0.8%)</i></p>	<p>Expected Growth Rate for <u>EXPORTS</u> Over the Next 12 Months</p> <p>↑ 0.5% <i>(December: ↑ 0.3%)</i></p>
<p>Expected Growth Rate for <u>PRICES OF COMPANY'S PRODUCTS</u> Over the Next 12 Months</p> <p>↑ 1.5% <i>(December: ↑ 1.3%)</i></p>	<p>Expected Growth Rate for <u>RAW MATERIAL PRICES AND OTHER INPUT COSTS</u> Over the Next 12 Months</p> <p>↑ 1.8% <i>(December: ↑ 1.9%)</i></p>
<p>Expected Growth Rate for <u>INVENTORIES</u> Over the Next 12 Months</p> <p>↓ 0.3% <i>(December: ↓ 0.7%)</i></p>	<p>Expected Growth Rate for <u>HEALTH INSURANCE COSTS</u> Over the Next 12 Months</p> <p>↑ 6.2% <i>(December: ↑ 5.9%)</i></p>

U.S. Manufacturing Employment Growth



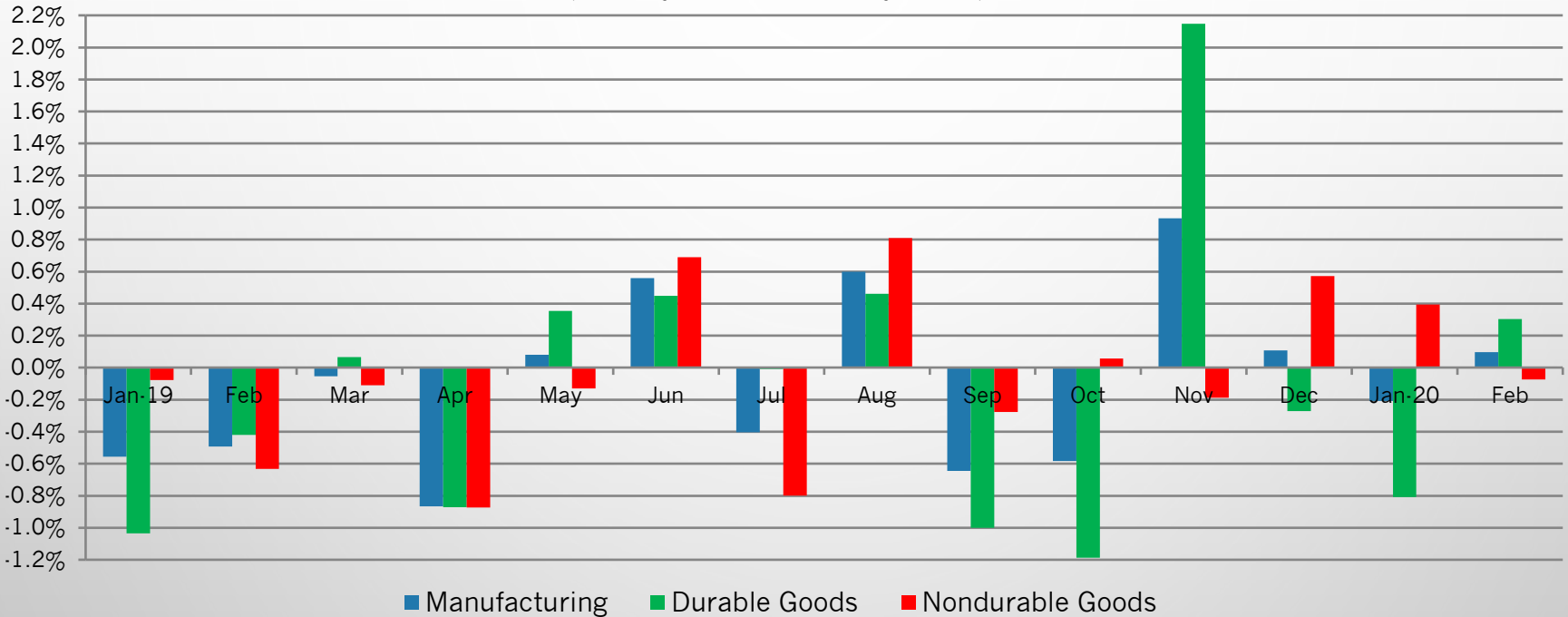
MANUFACTURING BUSINESS OUTLOOK BY QUARTER, (1ST QUARTER 2018-1ST QUARTER 2020)



Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive.

Percentage Changes in Manufacturing Production

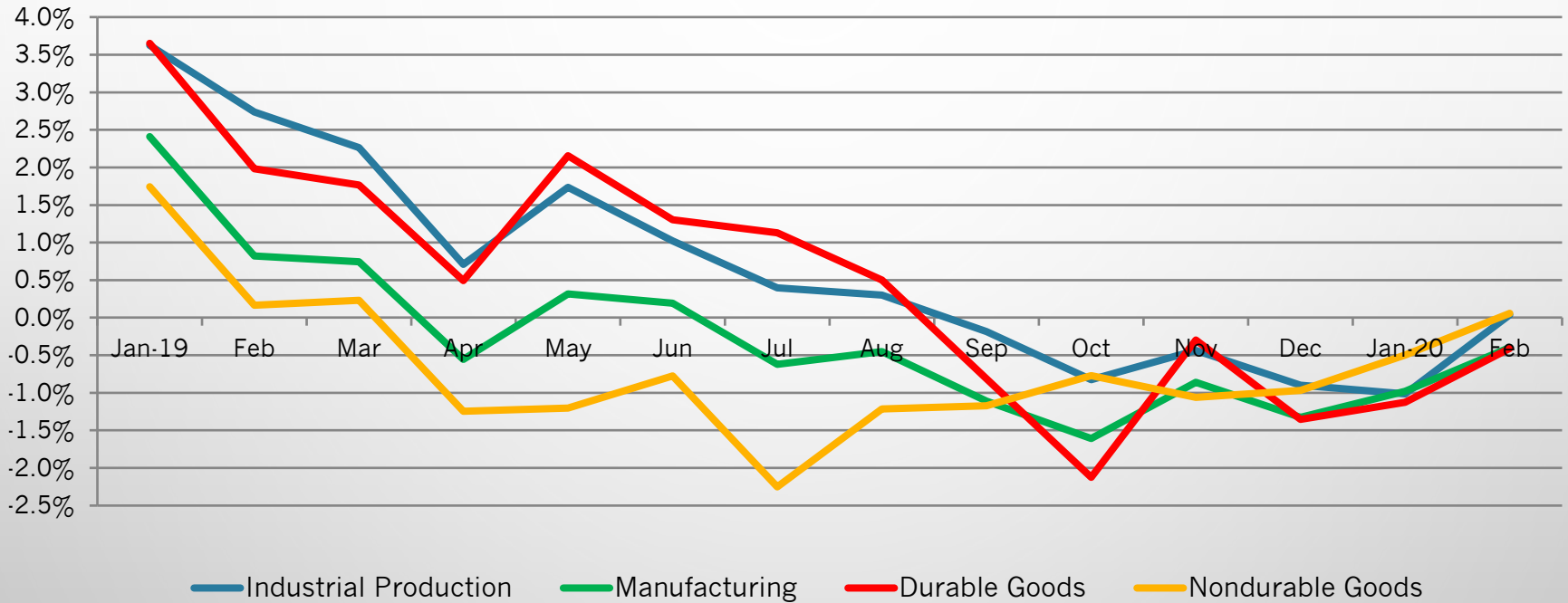
(January 2019 – February 2020)



Source: National Association of Manufacturers

Year-Over-Year Industrial Production Growth

(January 2019 – February 2020)



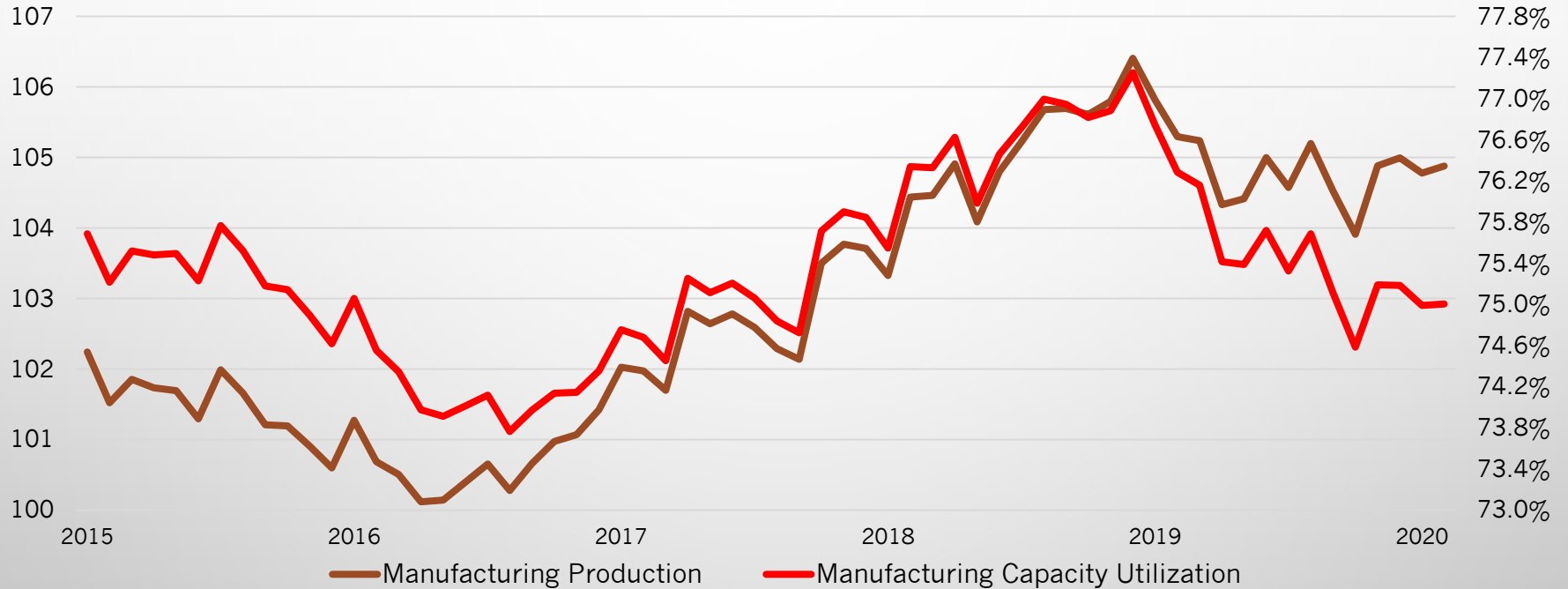
Source: National Association of Manufacturers

Manufacturing
Production (SIC)
(2012=100)

Manufacturing Production and Capacity Utilization

(January 2015 to February 2020)

Manufacturing
Capacity
Utilization (SIC)



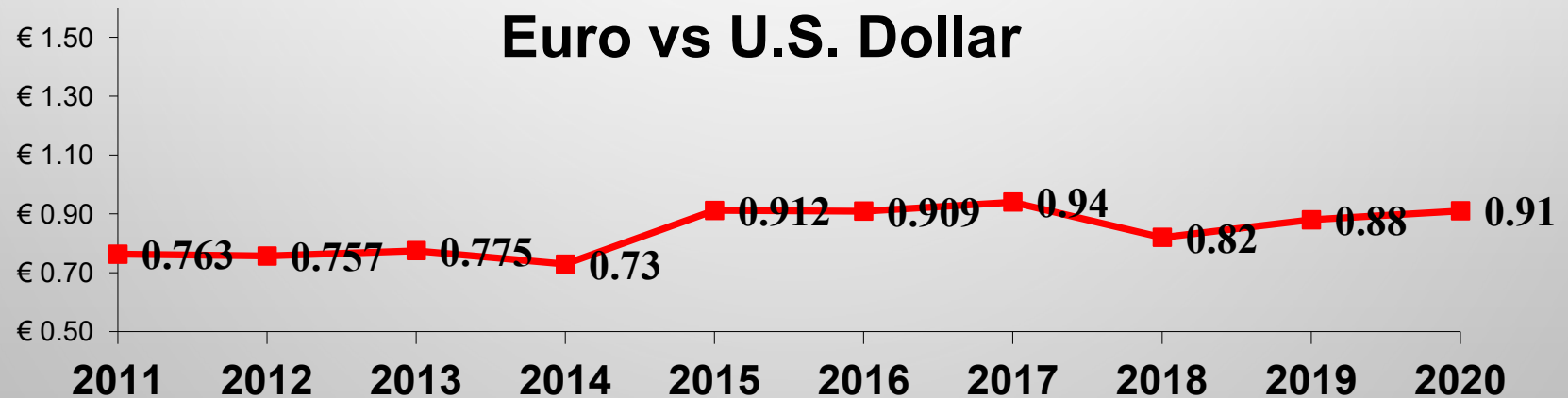
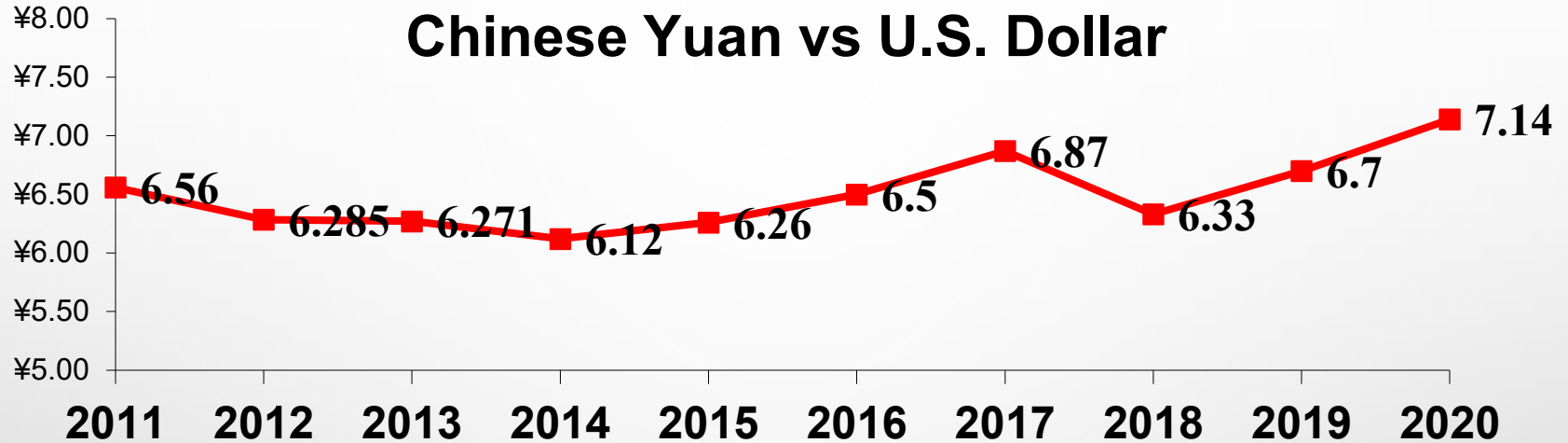
Source: National Association of Manufacturers

PRIMARY CURRENT BUSINESS CHALLENGES, FIRST QUARTER 2020



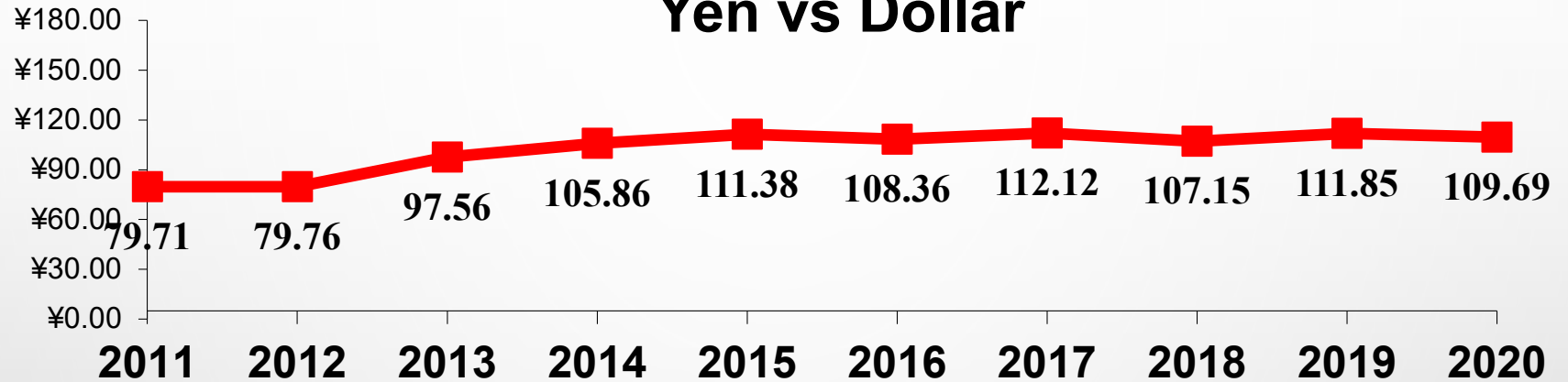
Source: National Association of Manufacturers Outlook Survey

Currencies

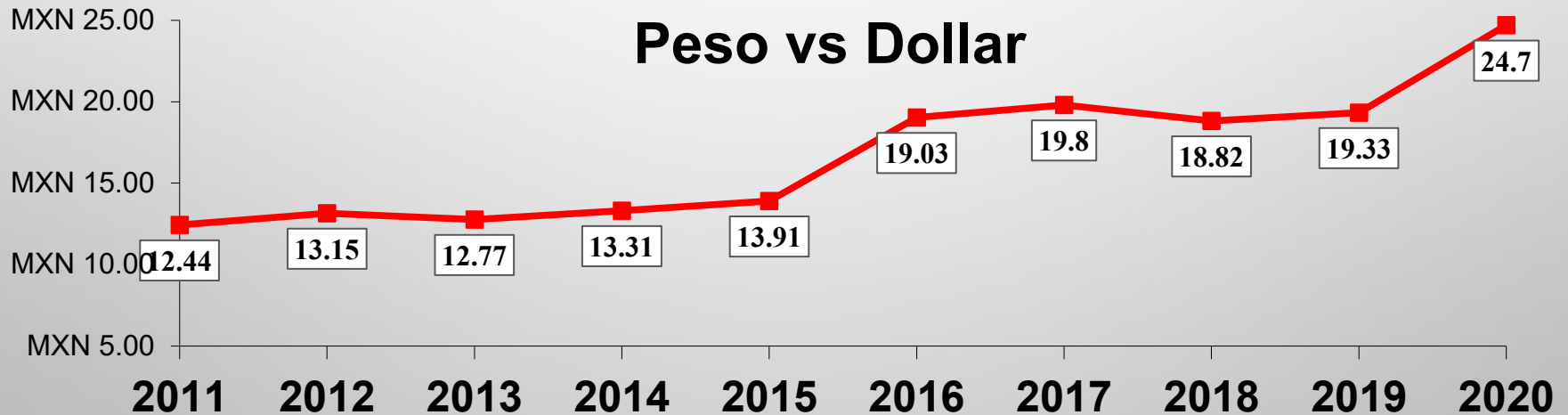


Currencies

Yen vs Dollar

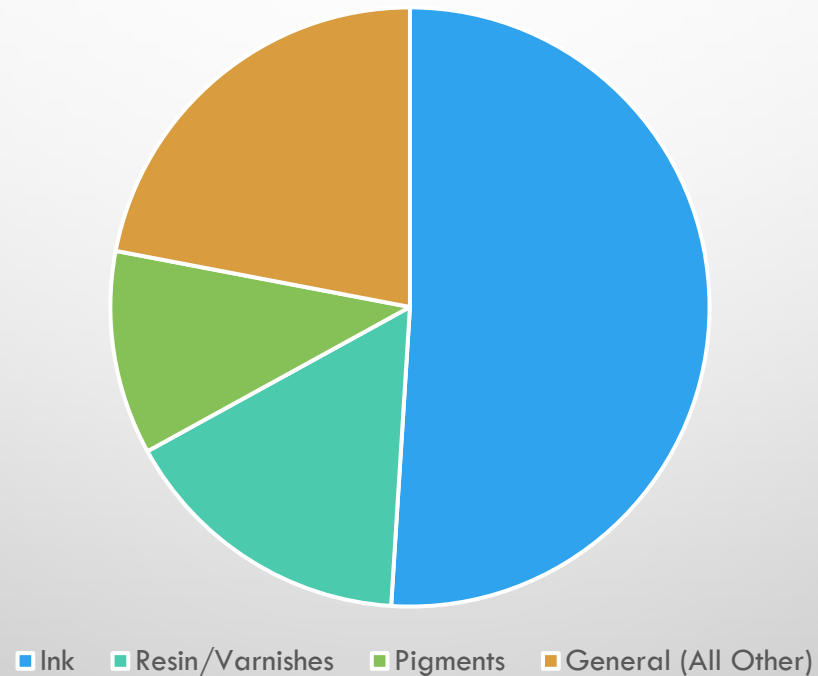


Peso vs Dollar



OUTLOOK SURVEY RESPONSE

Survey Response



Top Current Concerns

- Ink Companies concerns heading into 2020:

General Economy - 2020		2019
1. Overall Economic Activity		1
2. Customer Consolidations/Closings		2
3. Imports		3
External - 2020		2019
1. Raw Material Cost		1
2. Raw Material Availability		2
3. Market Competition		4
Internal - 2020		2019
1. Experienced Workers		3
2. Transportation Costs		2
3. Health Care Costs		1

Top Current Concerns

- TAM Companies concerns heading into 2020:

Overall		2019
1. Customer Consolidations/Closings		2
2. Overall Economic Activity		1
3. Imports		3
Market		2019
1. Raw Material Costs		1
2. Raw Material Availability		2
3. Market Dynamics		3
Internal		2019
1. Experienced Workers		1
2. Transportation Costs		2
3. Unskilled Labor		3

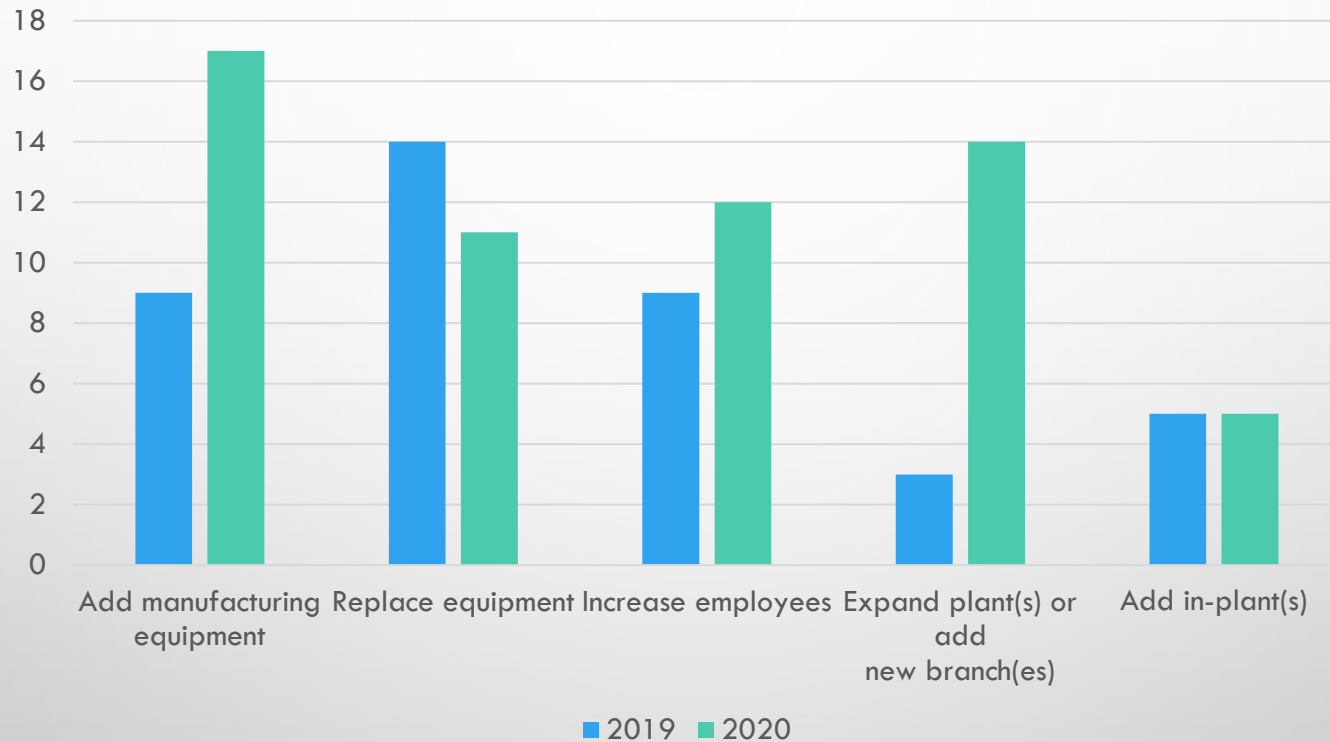
Ink Companies say Printers Value

2020	2019
1. Consistent Product Quality	1
2. Price	2
3. Quick Delivery	4

TAM Companies say Ink Companies Value

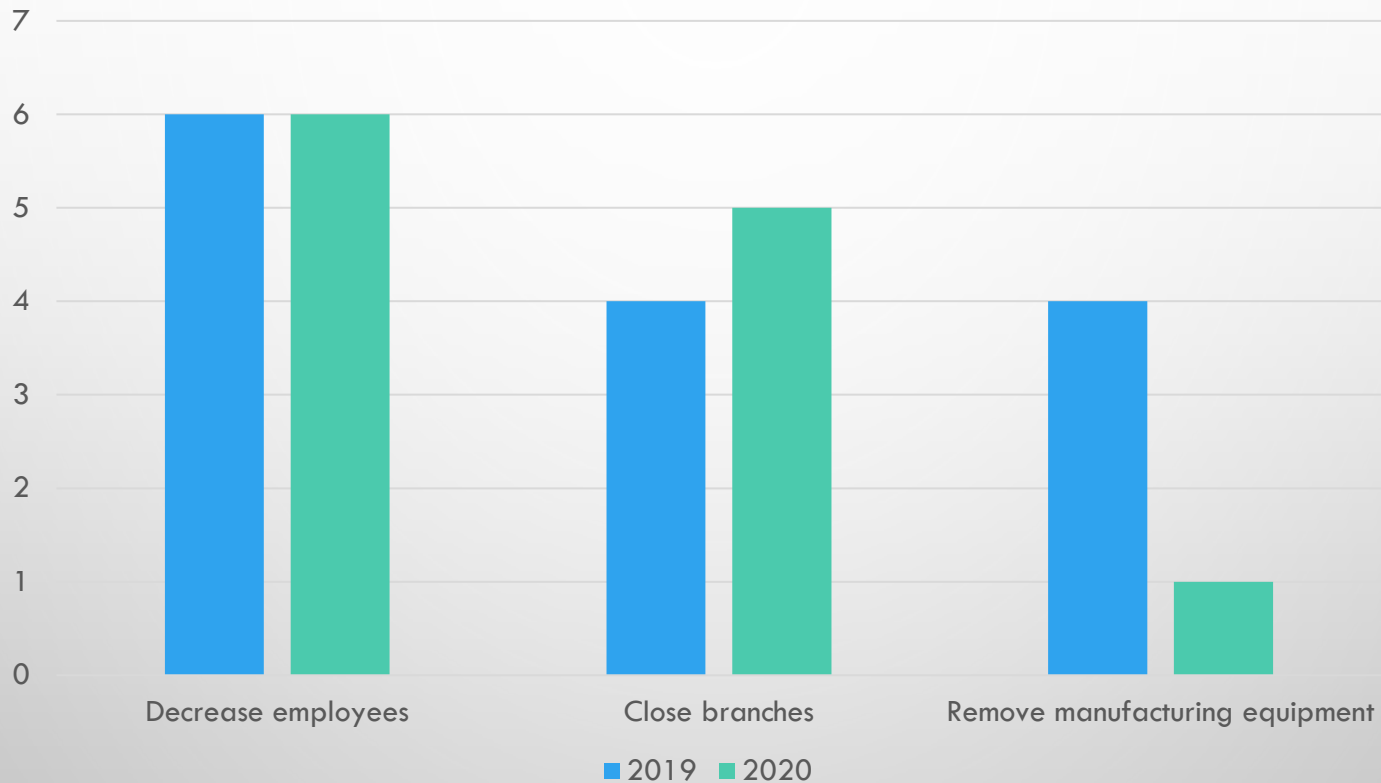
2020	2019
1. Consistent Product Quality	2
2. Price	1
3. Technical Support	3

Is your company planning to INCREASE its current capacity in 2020?



**Only NAPIM members reporting

Is your company planning to DECREASE its current capacity in 2020?



**Only NAPIM members reporting

25

Source – NAPIM Outlook Survey



PROFITABILITY AND SALES FOR BOTH SUPPLIERS AND INK COMPANIES

2019 compared to 2018

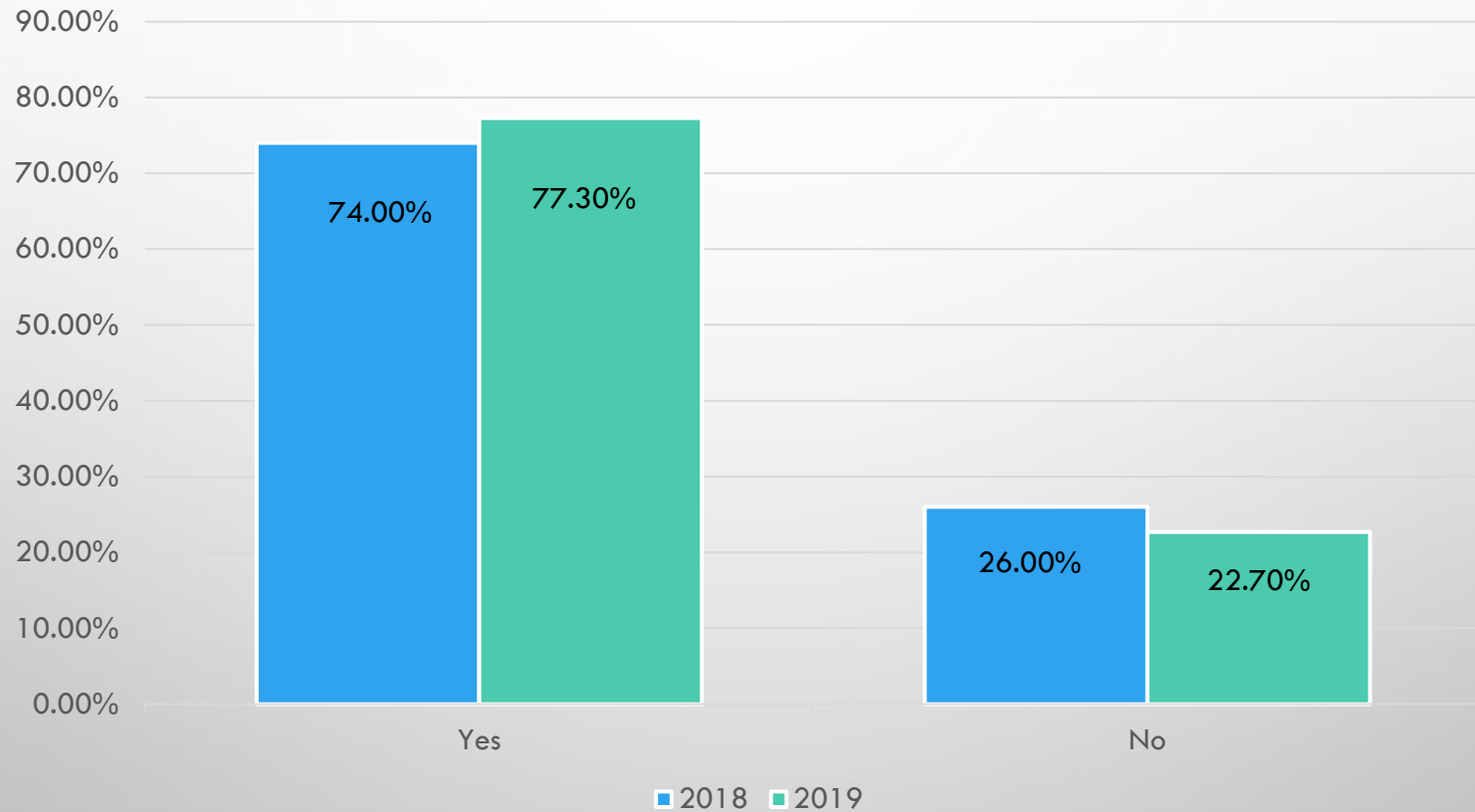
	Sales	Profitability
- 5% or more	19.0%	23.8%
- 1-5%	19.0%	19.0%
+/- 1%	14.3%	9.5%
+ 1-5%	19.0%	47.6%
+ 5% or more	28.6%	9.5%

Expectations for 2020

	Sales	Profitability
- 5% or more	0.0%	0.0%
- 1-5%	17.4%	13.0%
+/- 1%	21.7%	21.7%
+ 1-5%	43.5%	39.1%
+ 5% or more	17.4%	26.1%

SOCIAL MEDIA

Is your company engaged in Social Media?



COMPANY PAID PORTION OF HEALTH CARE COSTS

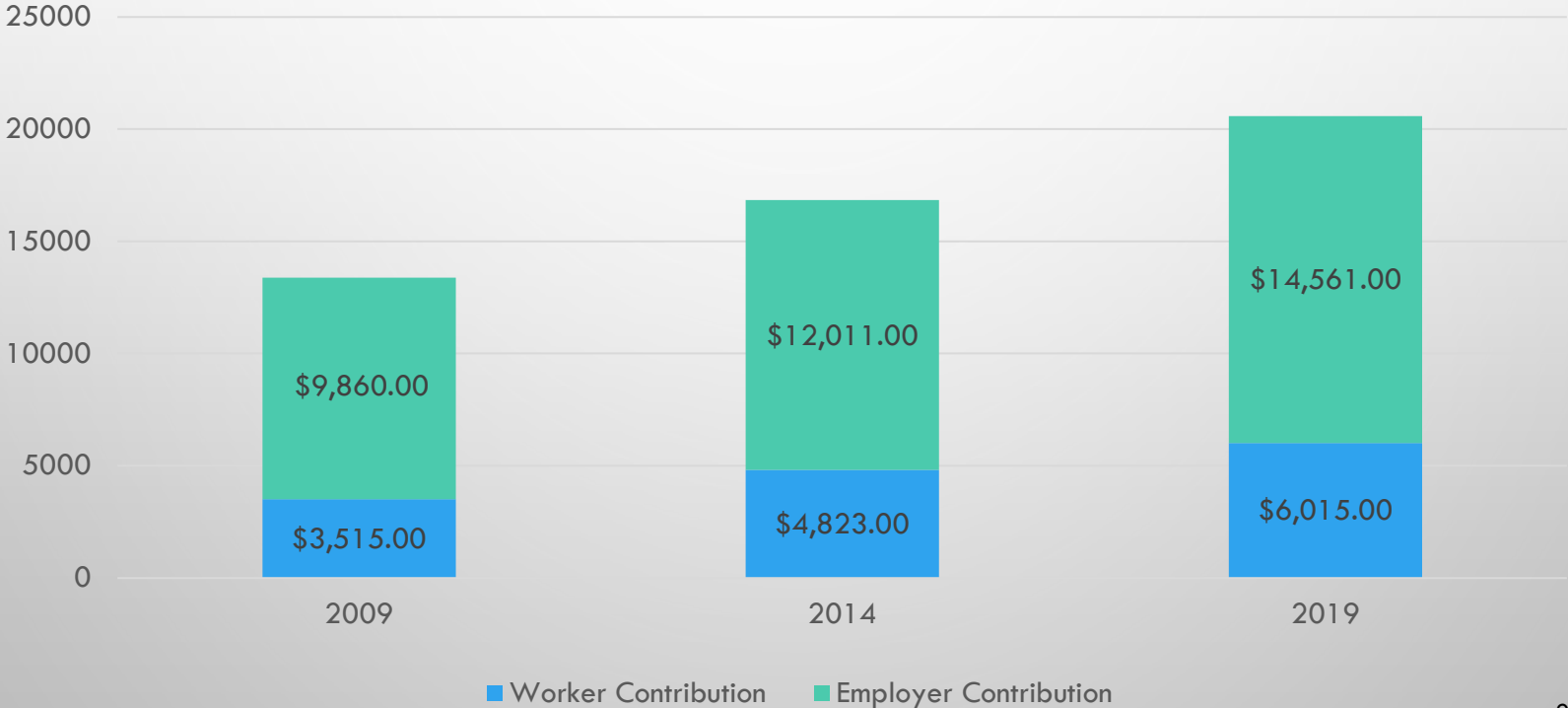
Percent covered by employer



■ 100% ■ 96.50% ■ 85% ■ 80% ■ 75% ■ 70% ■ 65% ■ 60% ■ 50% ■ 40%

HEALTHCARE COSTS

Average Annual Worker & Employer Premium Contributions

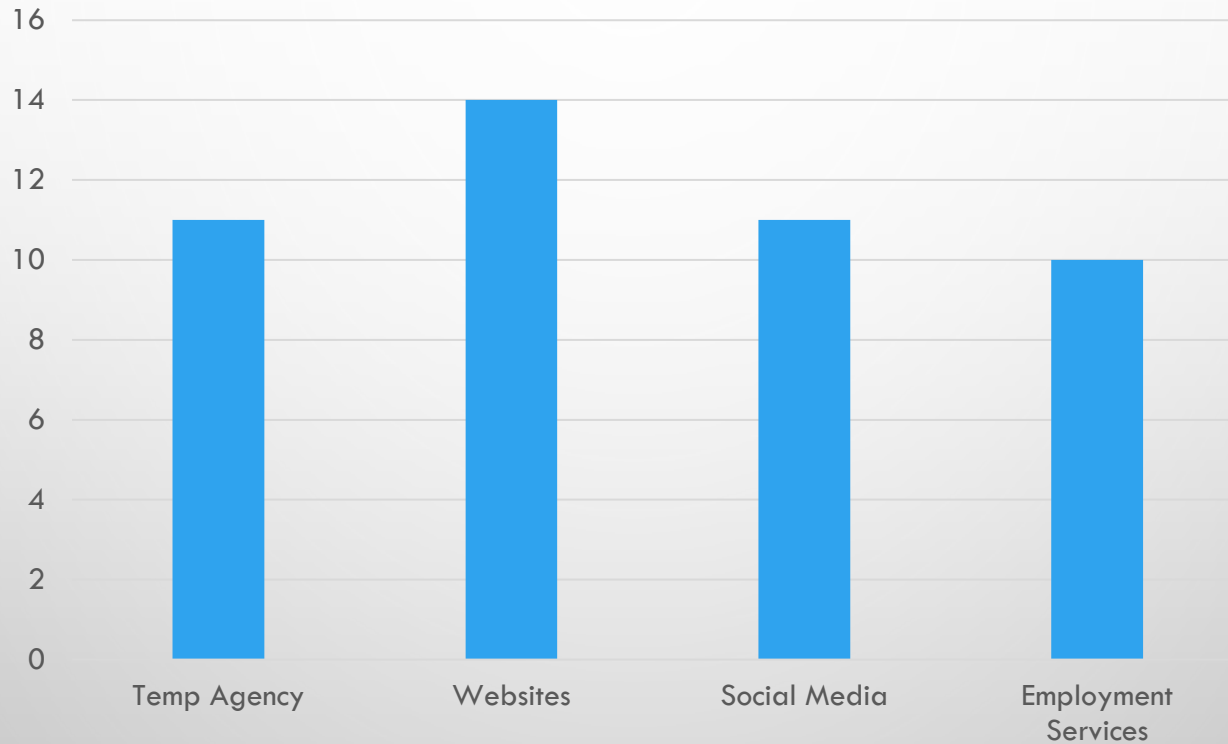


Source – KFF Employer Health Benefits Survey, 2019



HIRING PRACTICES

How does your company find qualified workers?



Source – NAPIM Outlook Survey

REVENUE AND GROWTH

INFORM & COMMUNICATE PRODUCT LOGISTICS

- MAGAZINES & PERIODICAL
- NEWSPAPER PRINTING
- BOOK PRINTING
- FINANCIAL & LEGAL PRINTING
- BUSINESS FORMS PRINTING
- GREETING CARD PRINTING

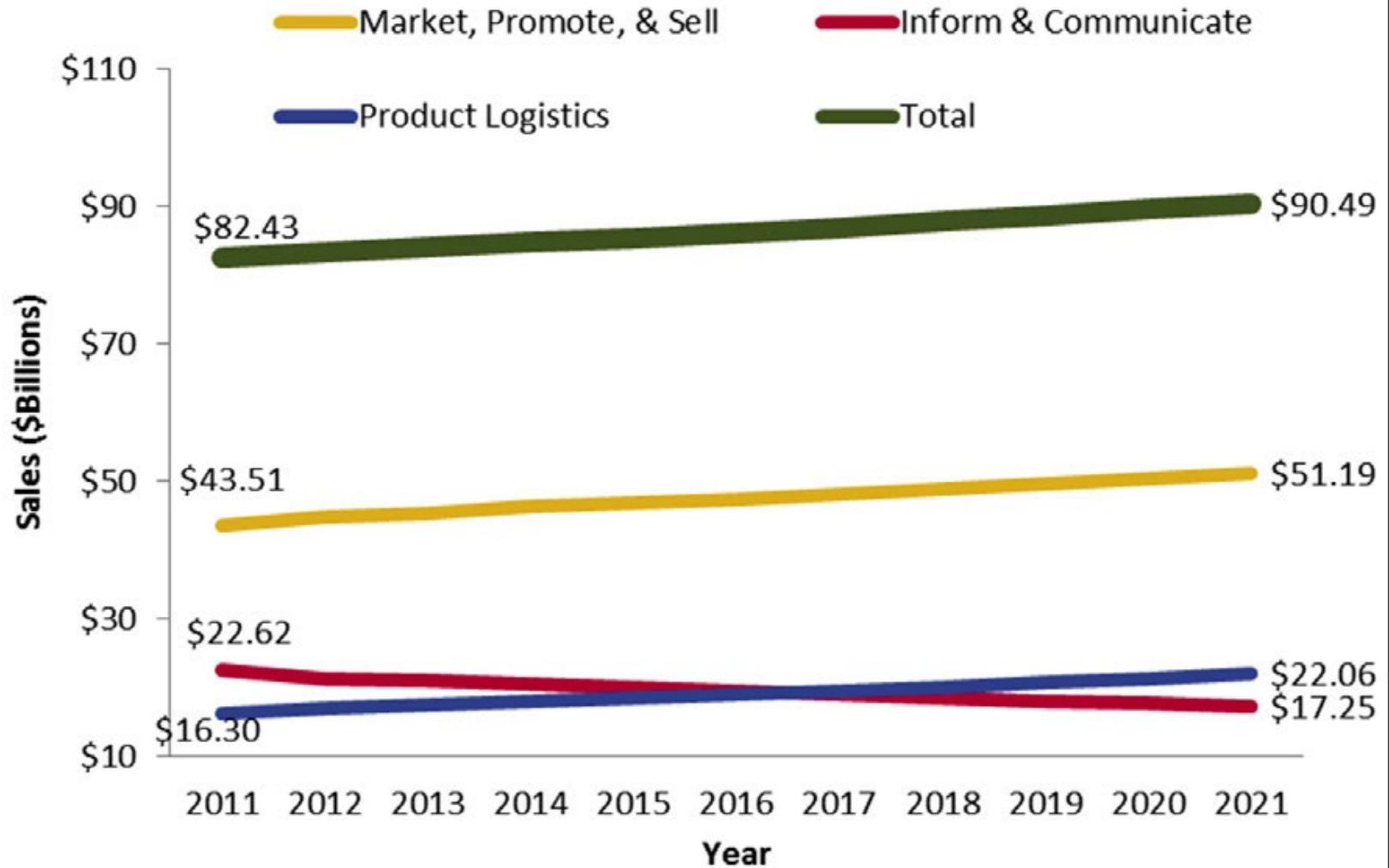
- CONVERTERS, LABEL, & WRAPPER PRINTING
- PACKAGE PRINTING

Market & Promote

- ▶ General Commercial Printing
- ▶ Quick Printer
- ▶ Direct Mail Printer
- ▶ Signs & Signage

Printing Industries of America's Long-term Print Forecast

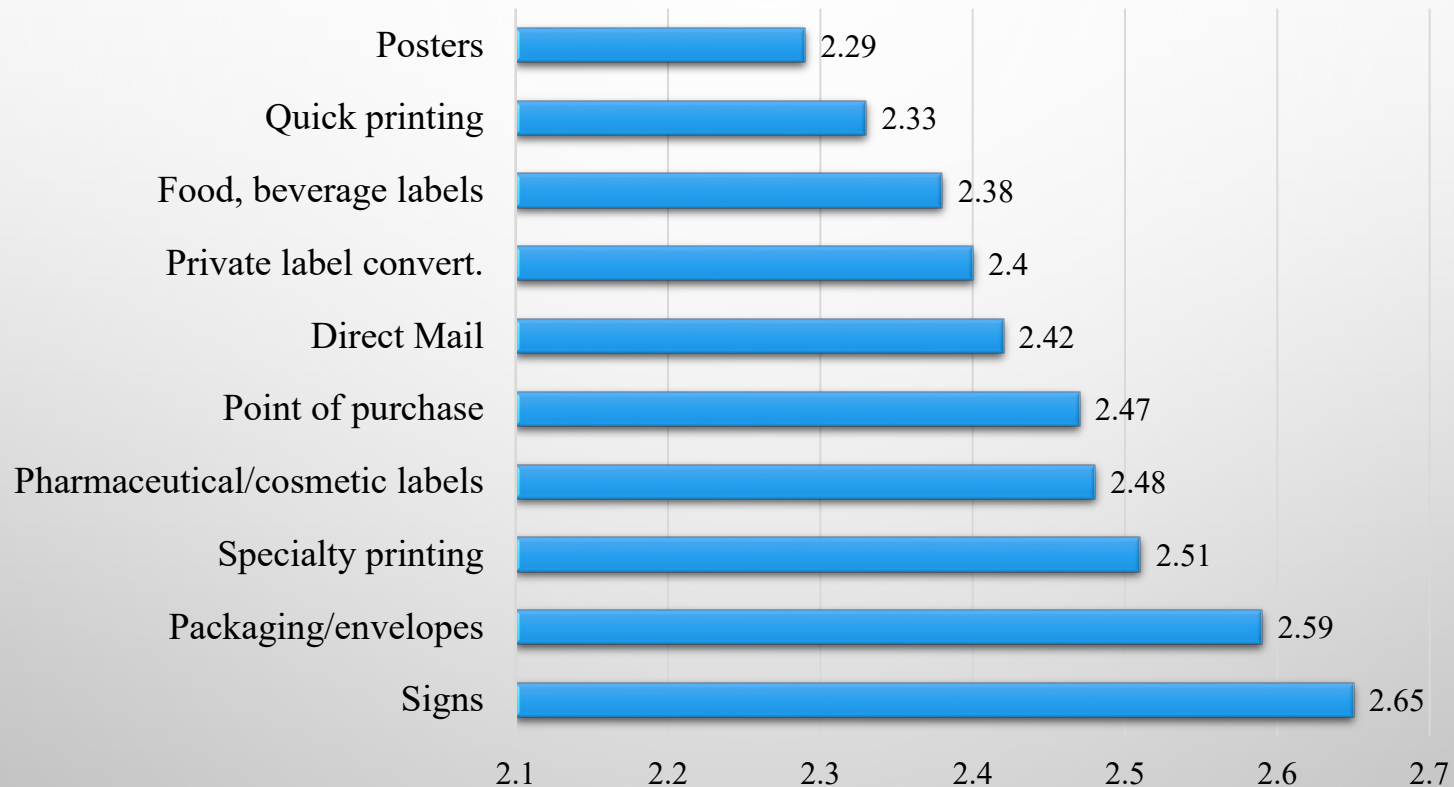
Commercial Printing & Related Support Activities (NAICS Code 323)



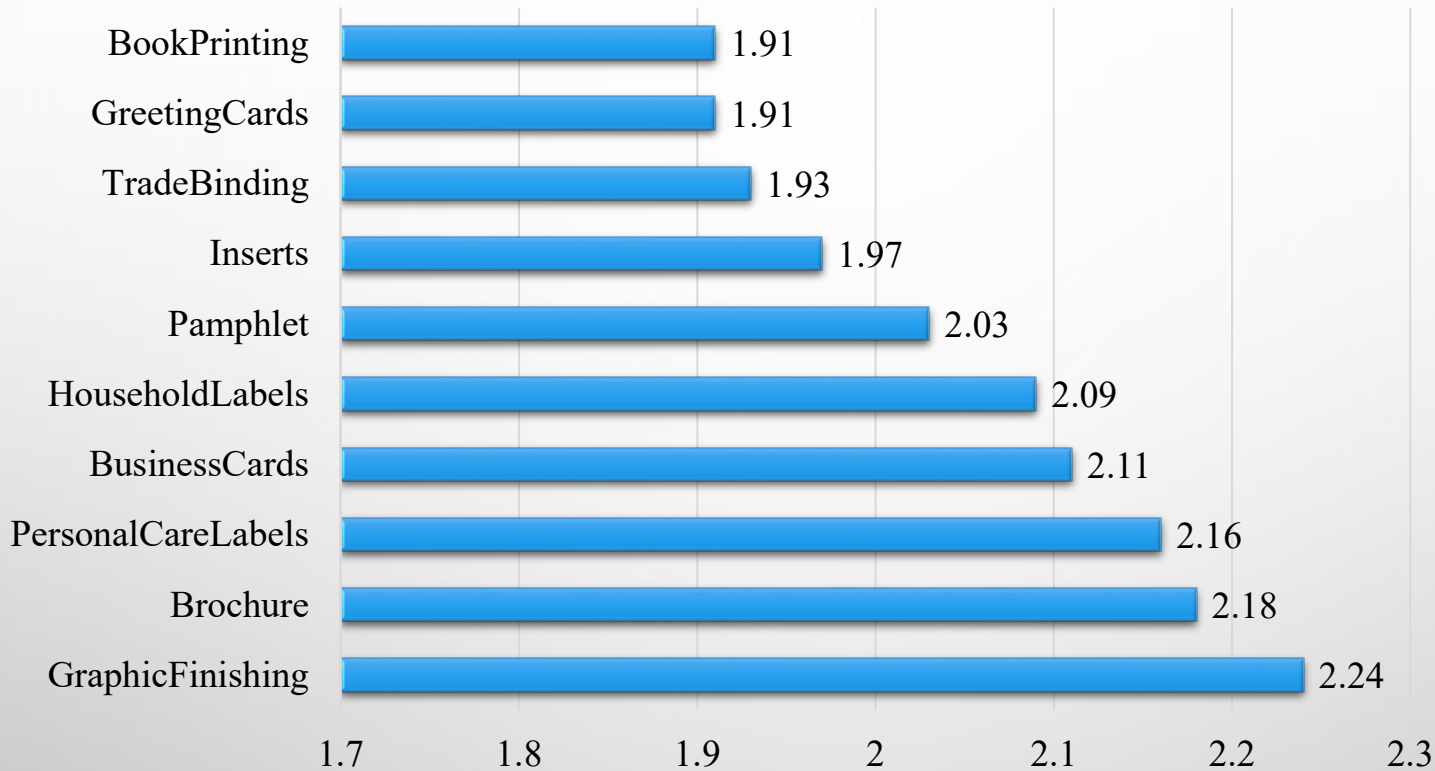
Source: PIA, Economic and Market Research Dept

PRINT MARKETS

Hot Print Markets: Top 10

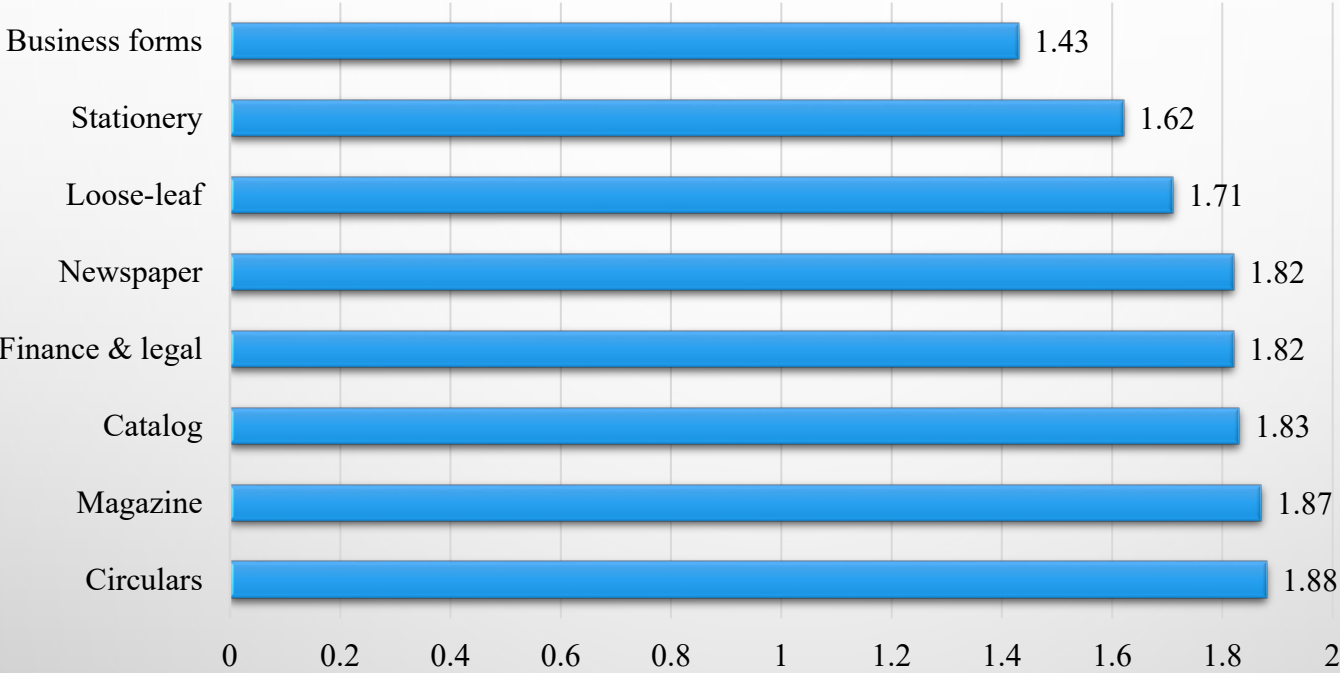


Warm Print Markets



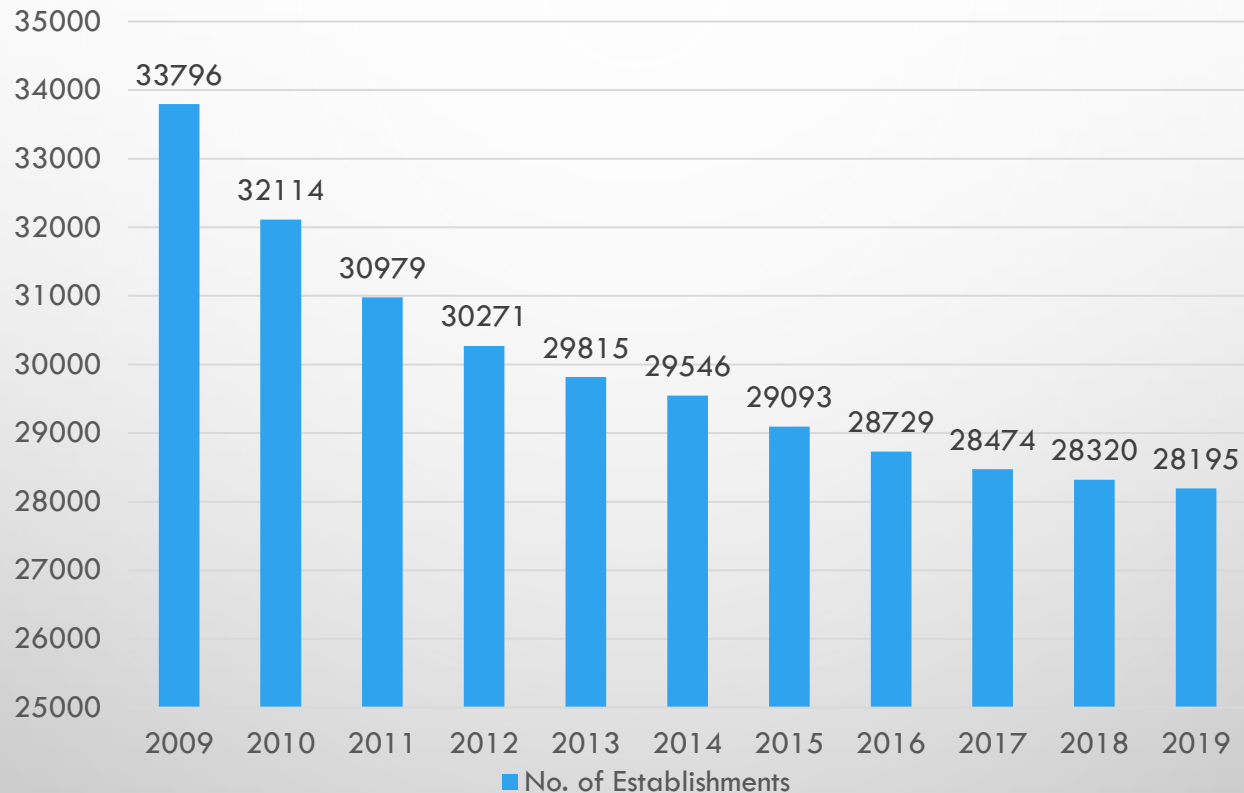
Source: PIA, Center for Print Economics and Management
Figures represent sales growth % for survey respondents

Print Market Laggards



Source: PIA, Center for Print Economics and Management
Figures represent sales growth % for survey respondents

UNITED STATES COMMERCIAL PRINTING ESTABLISHMENTS

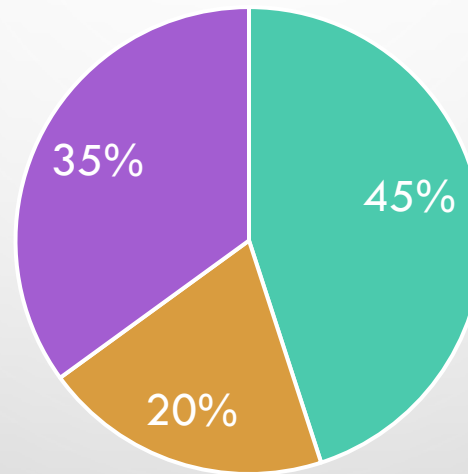


Please note 2019 data is for Q1-Q3
NAICS 323 – Printing and related support activities

Source: U.S. Bureau of Labor Statistics

SUSTAINABILITY

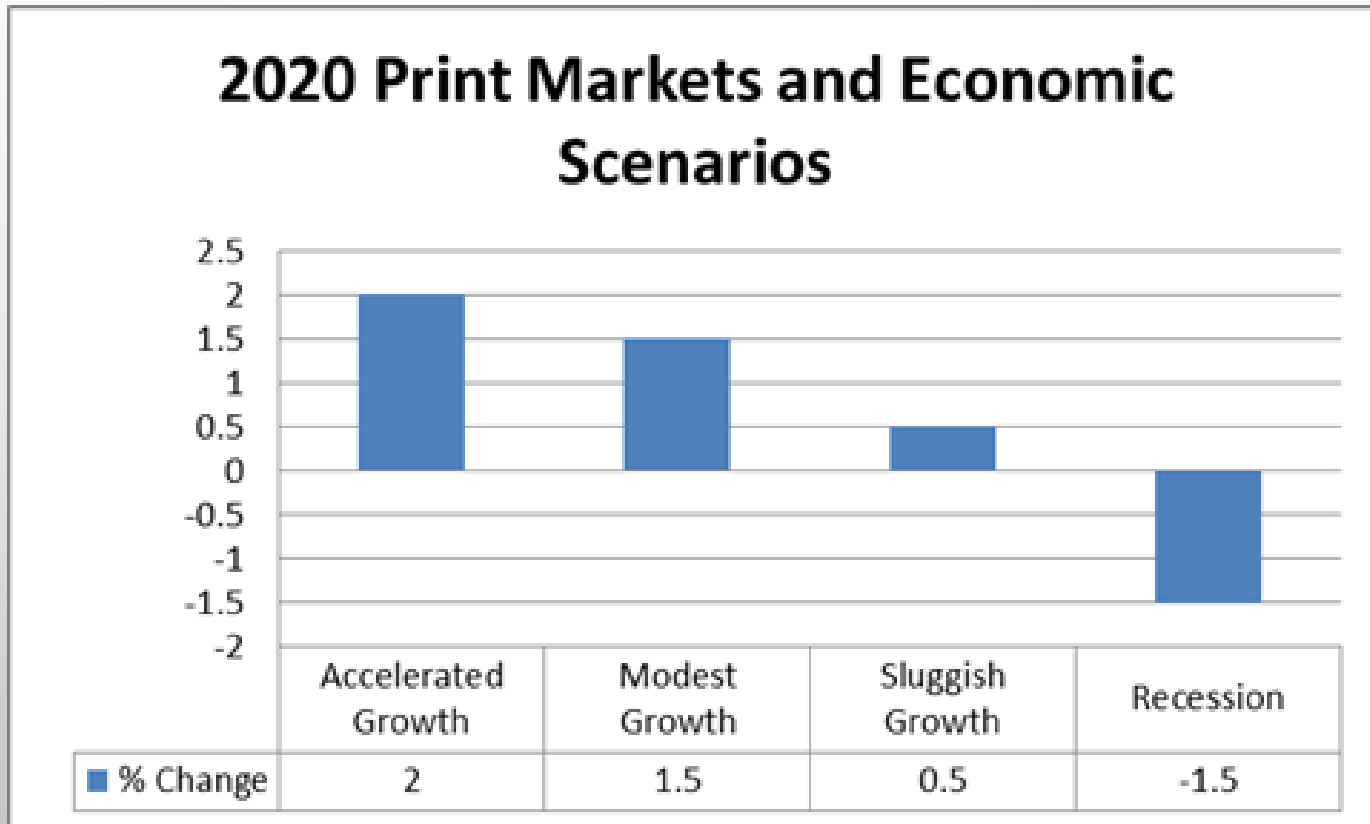
Has the emphasis on "sustainability" and "environmentally friendly ink" by print buyers required you to reformulate your products?



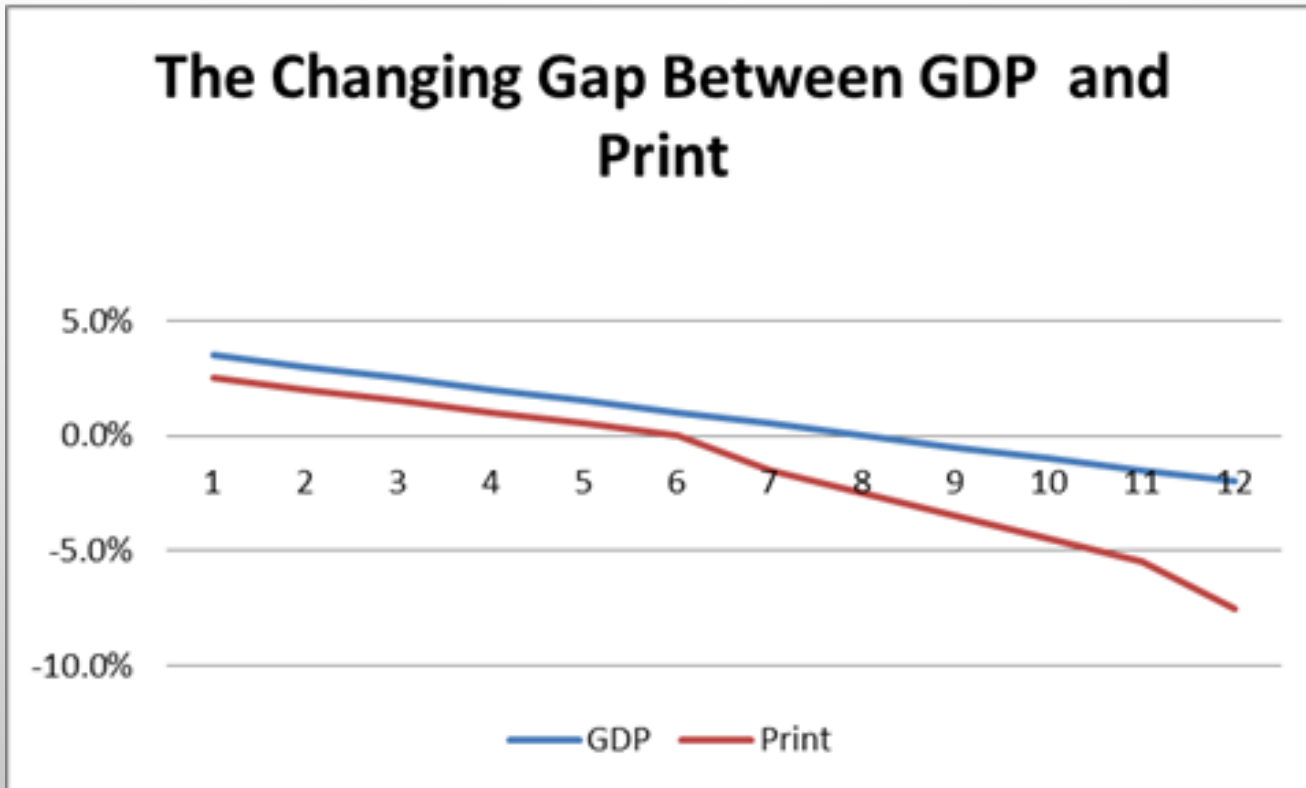
■ Somewhat ■ Major ■ Minor

PROFITABILITY

PIA

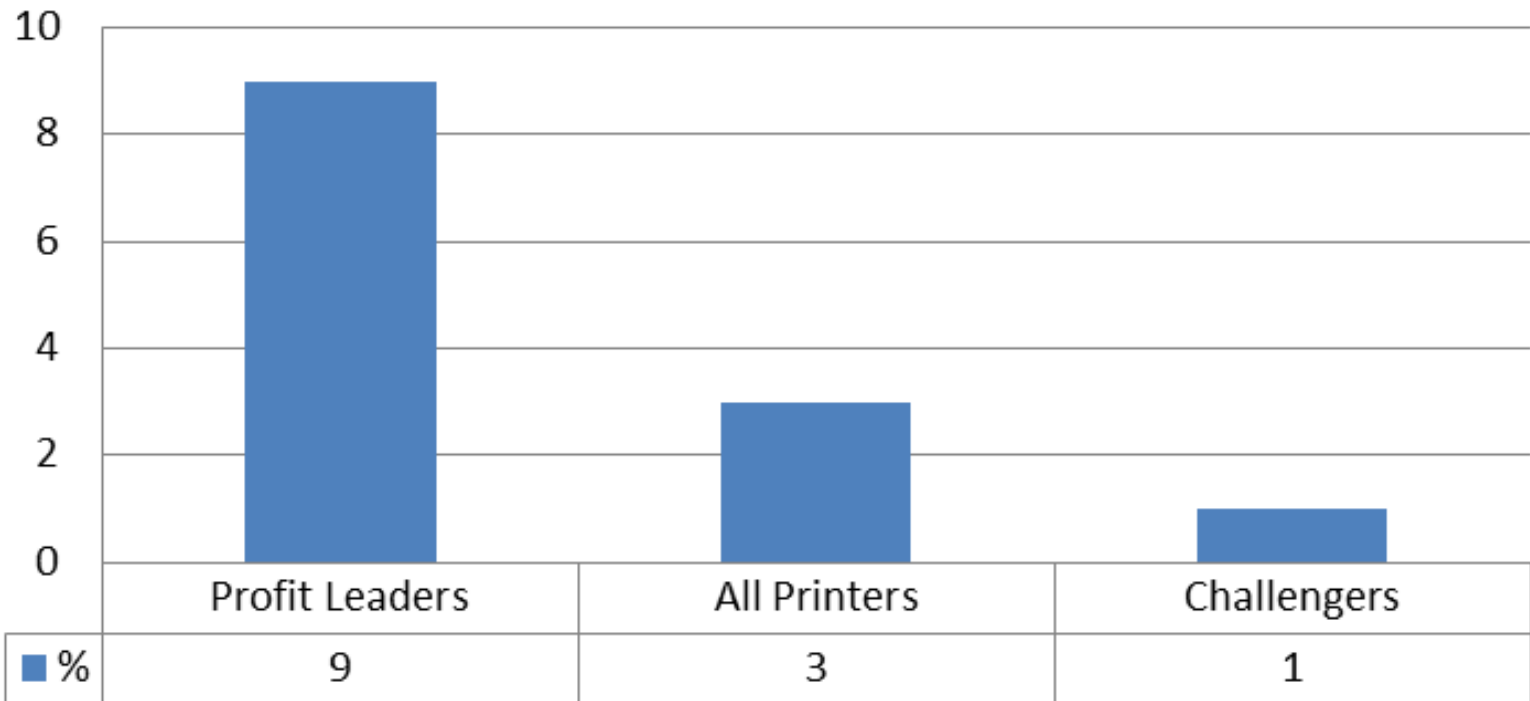


PIA



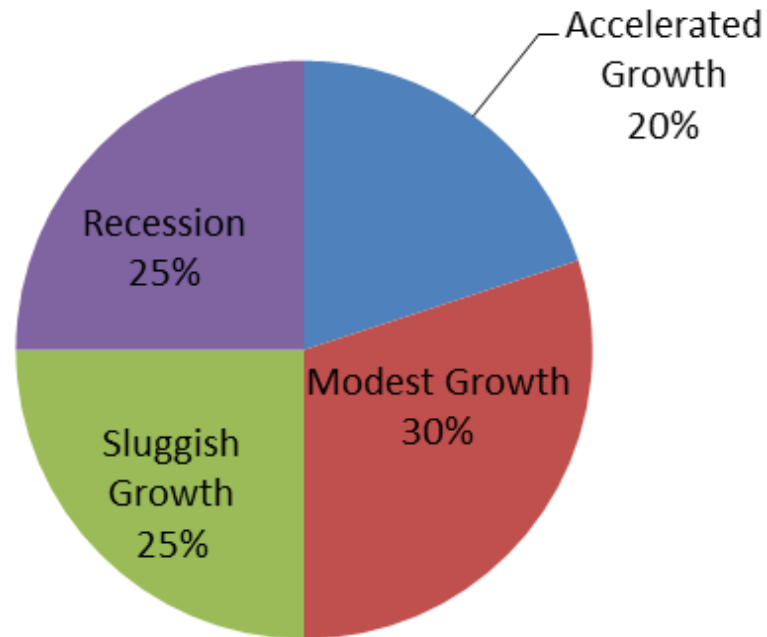
PIA

Printers' Profit as a % of Sales: 2019 Estimate

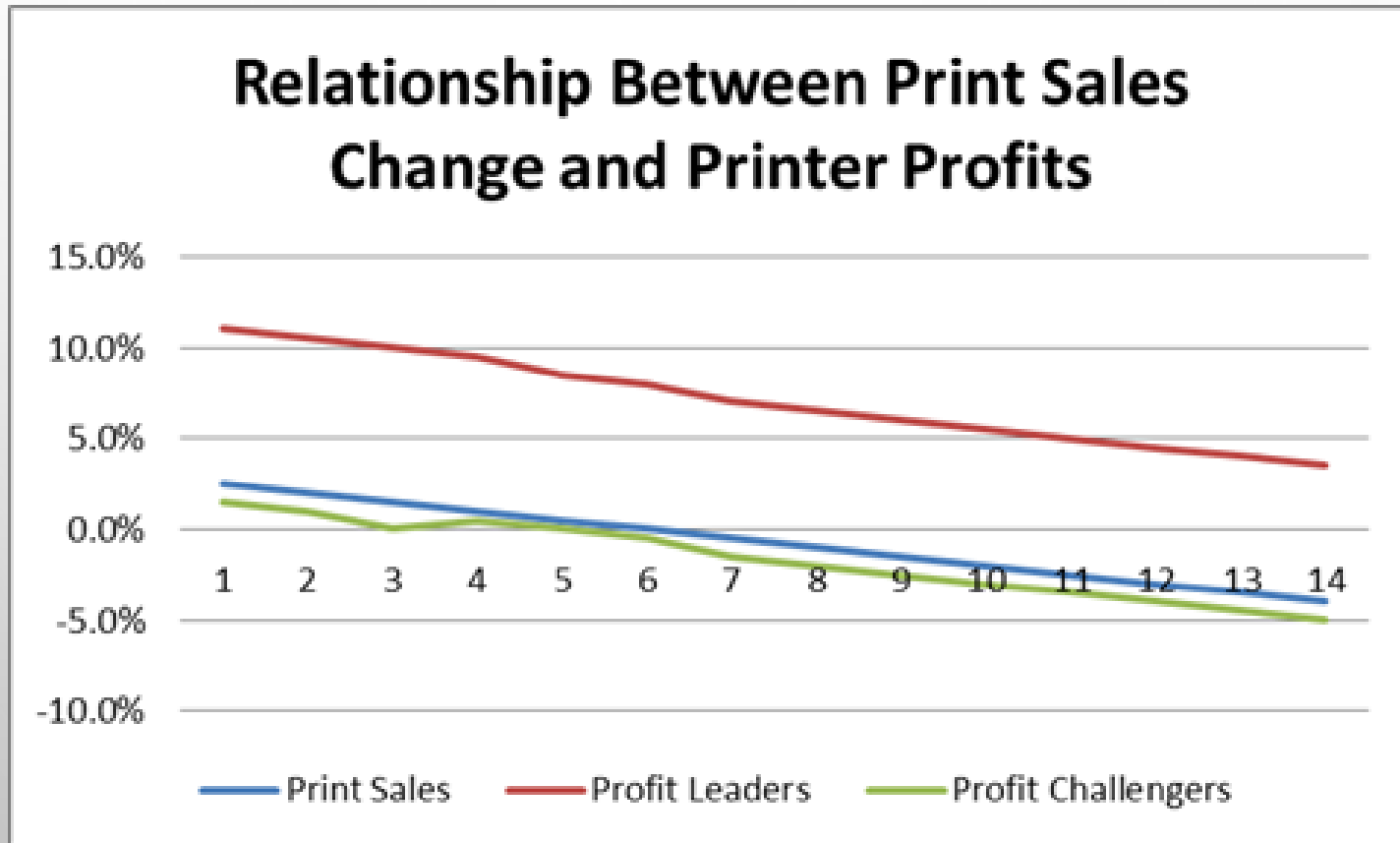


PIA

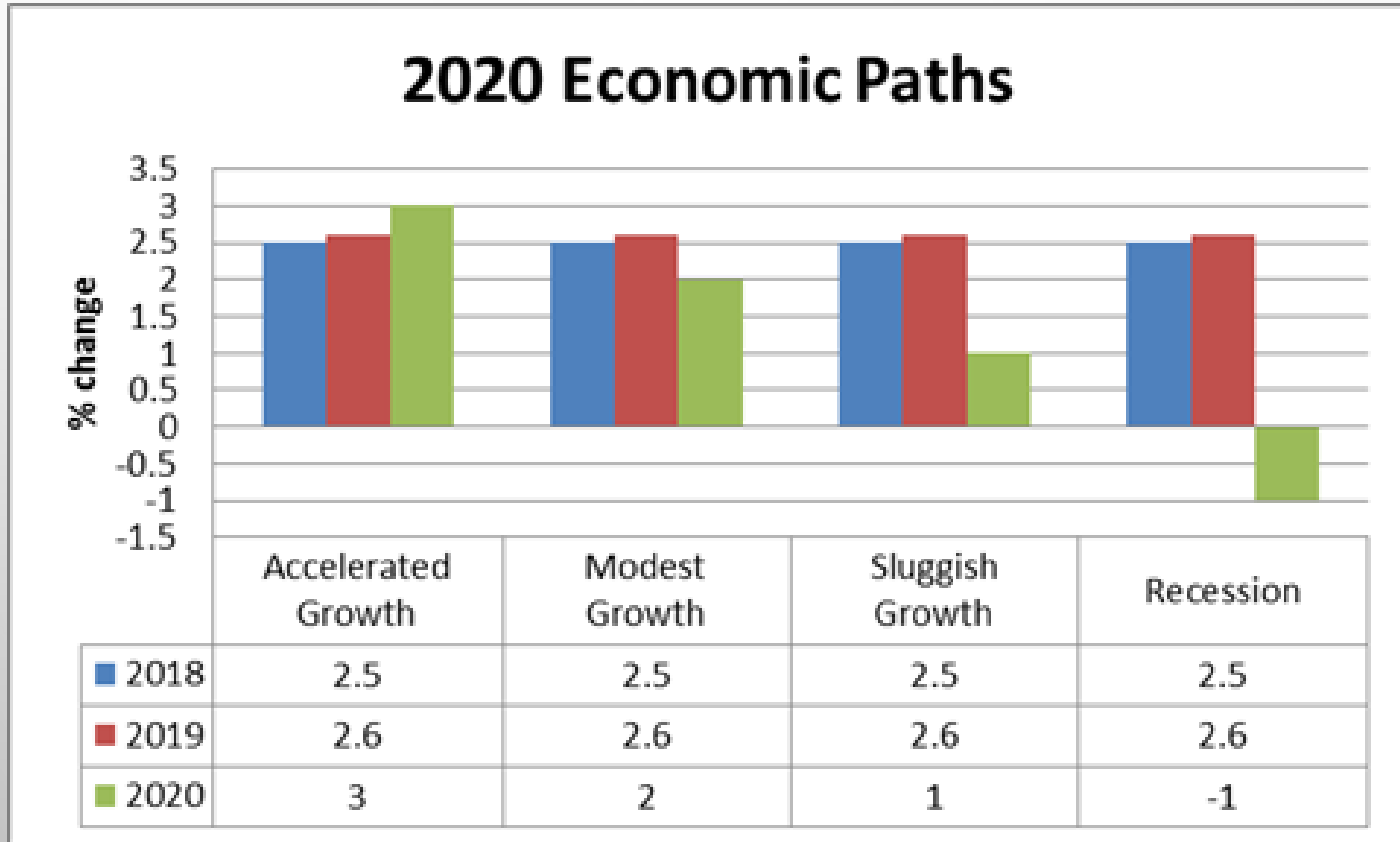
2020 Economic Scenarios



PIA

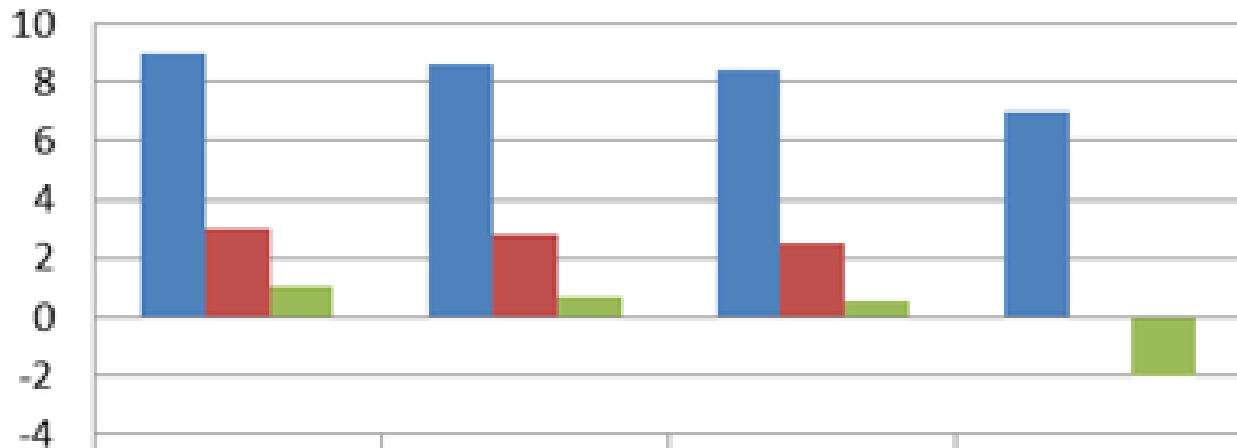


PIA



PIA

2020 Printer Profits (% of Sales)



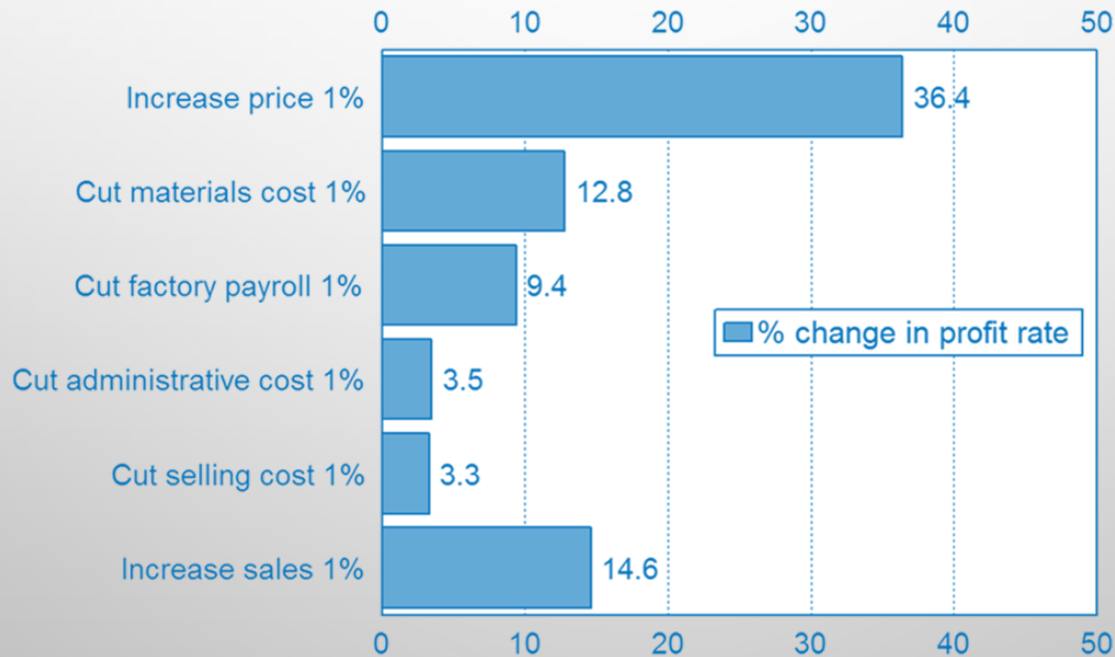
	Accelerated Growth	Modest Growth	Sluggish Growth	Recession
■ Profit Leader	9	8.6	8.4	7
■ All Printers	3	2.8	2.5	0
■ Challengers	1	0.7	0.5	-2

GAME PLAN FOR SUCCESS

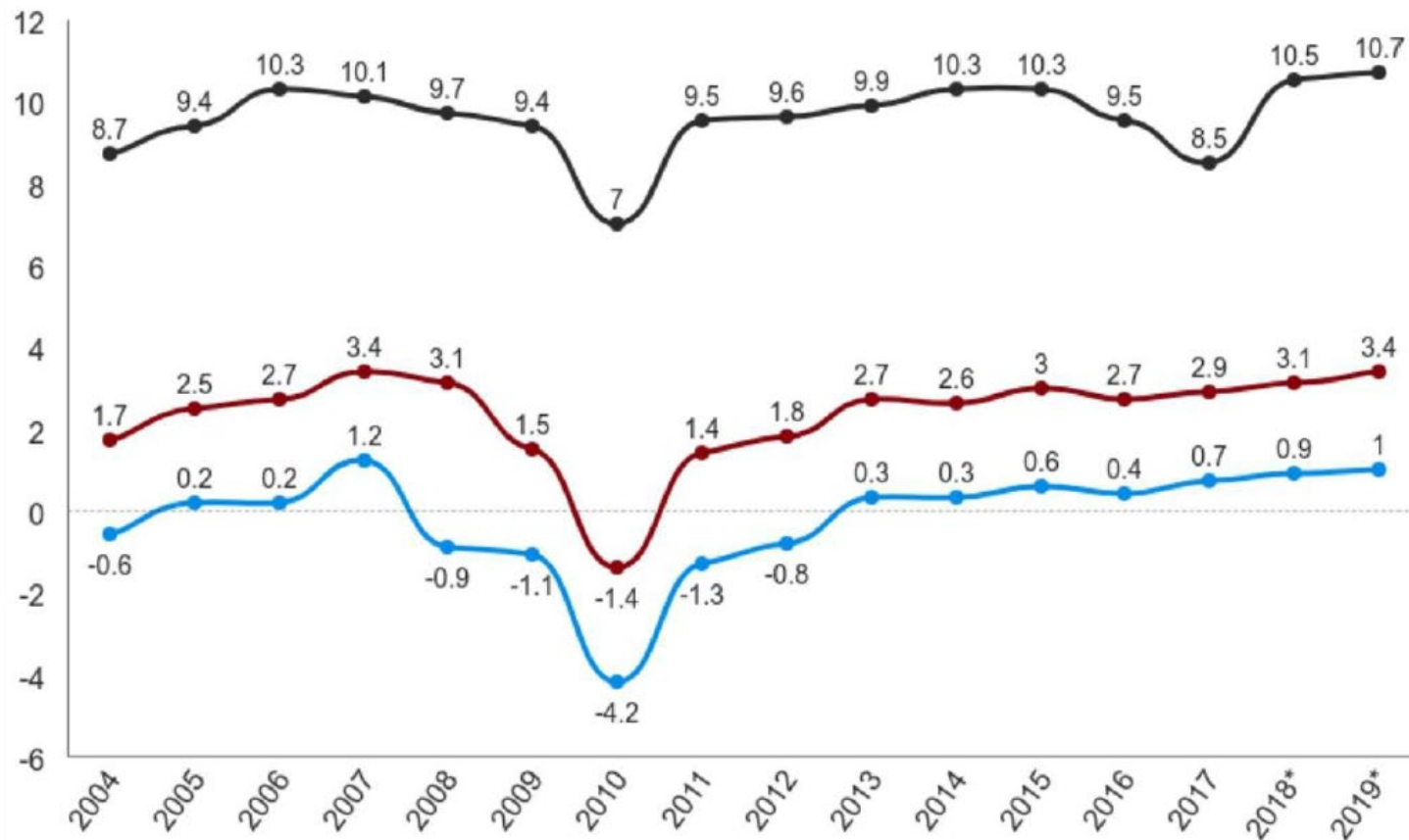
EXAMPLE OF A TOO LOW: A PRICE HIKE CAN SUPERCHARGE PROFITS

Pricing Power

Compete for Price--not on Price



Industry Profitability



Source: Printing Industries of America

END USE MARKETS

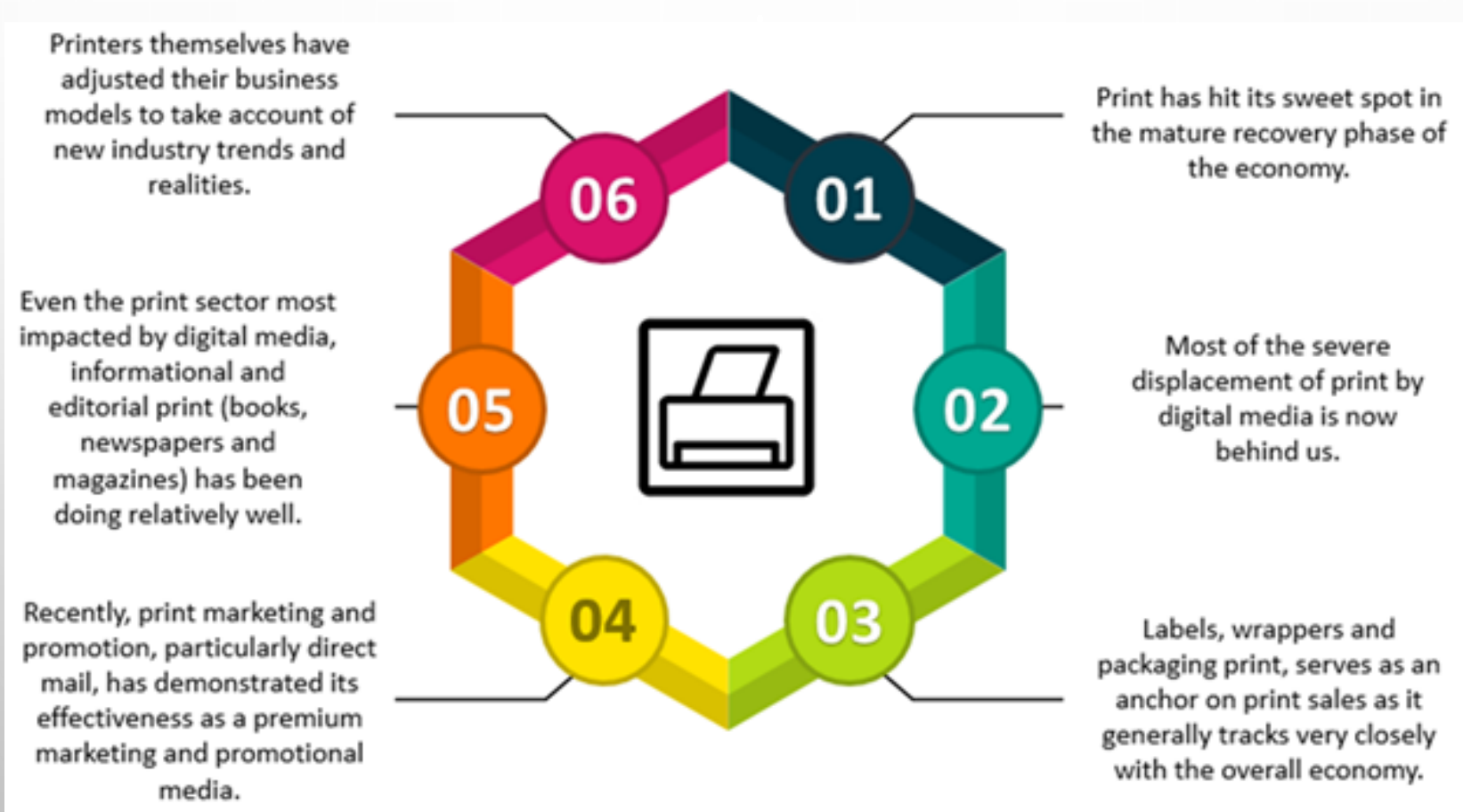
PIA

Products Provided by Printers

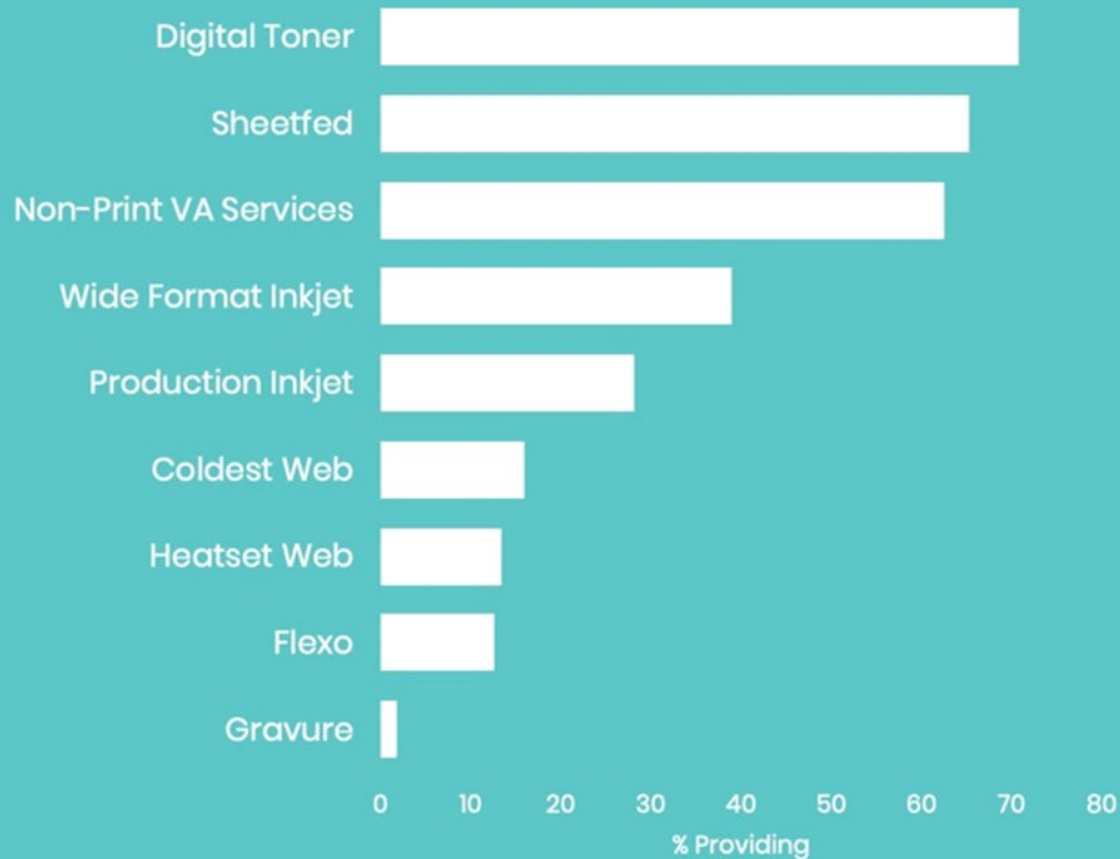
(Ranked by % of Printers Providing)

- 1 Direct Mail
- 2 Brochures
- 3 Pamphlets
- 4 Posters
- 5 Business Cards
- 6 Catalogs & Directories
- 7 Stationery
- 8 Inserts
- 9 Signs (Business Signs, Banners, etc)
- 10 Quick Printing
- 11 Point of Purchase Displays
- 12 Specialty Printing
- 13 Magazines and Periodicals
- 14 Business Forms Printing
- 15 Circulars
- 16 Book Printing
- 17 Financial & Legal Printing
- 18 Package Manufacturing (Converters, Envelope Printers)
- 19 Food, Beverage & Related Labels
- 20 Graphic Finishing
- 21 Greeting Cards
- 22 Trade Binding
- 23 Household Labels
- 24 Pharmaceutical & Cosmetic Labels
- 25 Personal Care Labels
- 26 Private Label Converting
- 27 Loose-Leaf Manufacturing
- 28 Newspaper Printing

6 Drivers To Strong Print Demand



Print Processes Provided by Printers



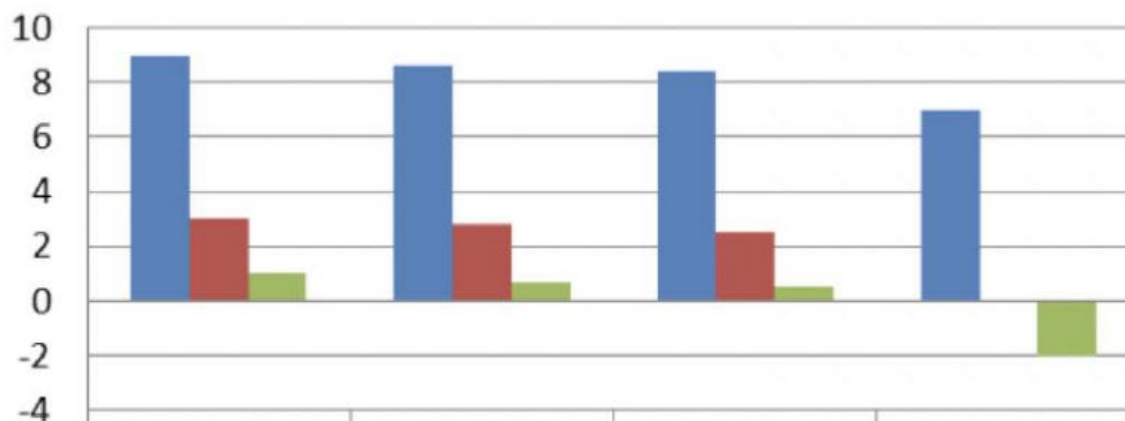
Printers' Ancillary Services

Ranked by % of Printers Providing

1 Kit Fulfillment	2 Mailing Management
3 Professional Creative Design	4 Web-to-Print Style Storefront (Print Procurement)
5 Web-to-Print Style Storefront (Marketing/Brand Management, ETC.)	6 Database Management Services
7 Logistics Management	8 Digital Asset Management
9 Cross-Media Marketing Services or Support	10 Digital Database Archiving
11 CD/DVD Services	12 Digital Studio Photography

Profit Scenarios for 2020

2020 Printer Profits (% of Sales)

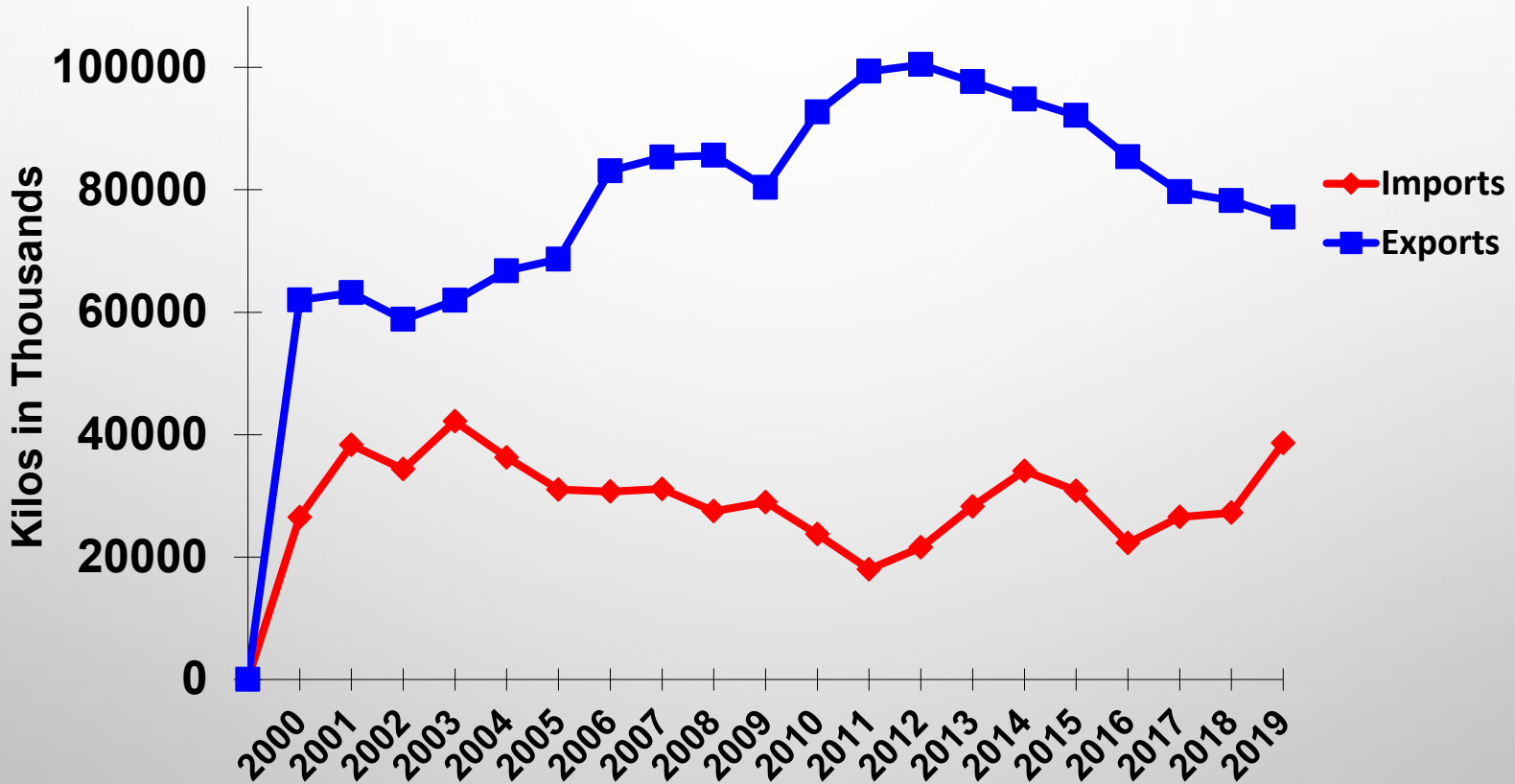


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FOREIGN TRADE

FOREIGN TRADE

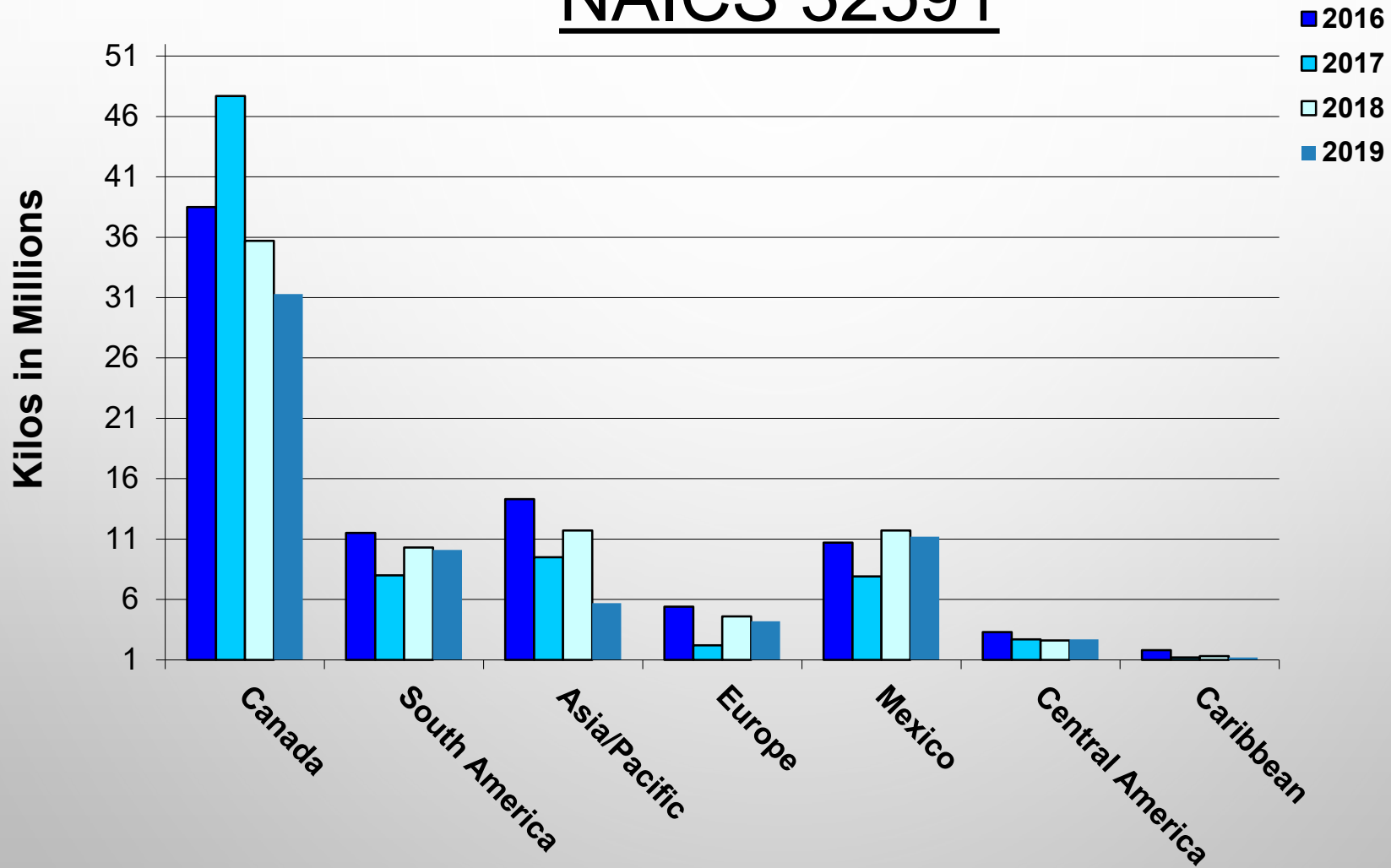
NAICS 32591



Source: U.S. Census Bureau

MAJOR INK EXPORTS

NAICS 32591

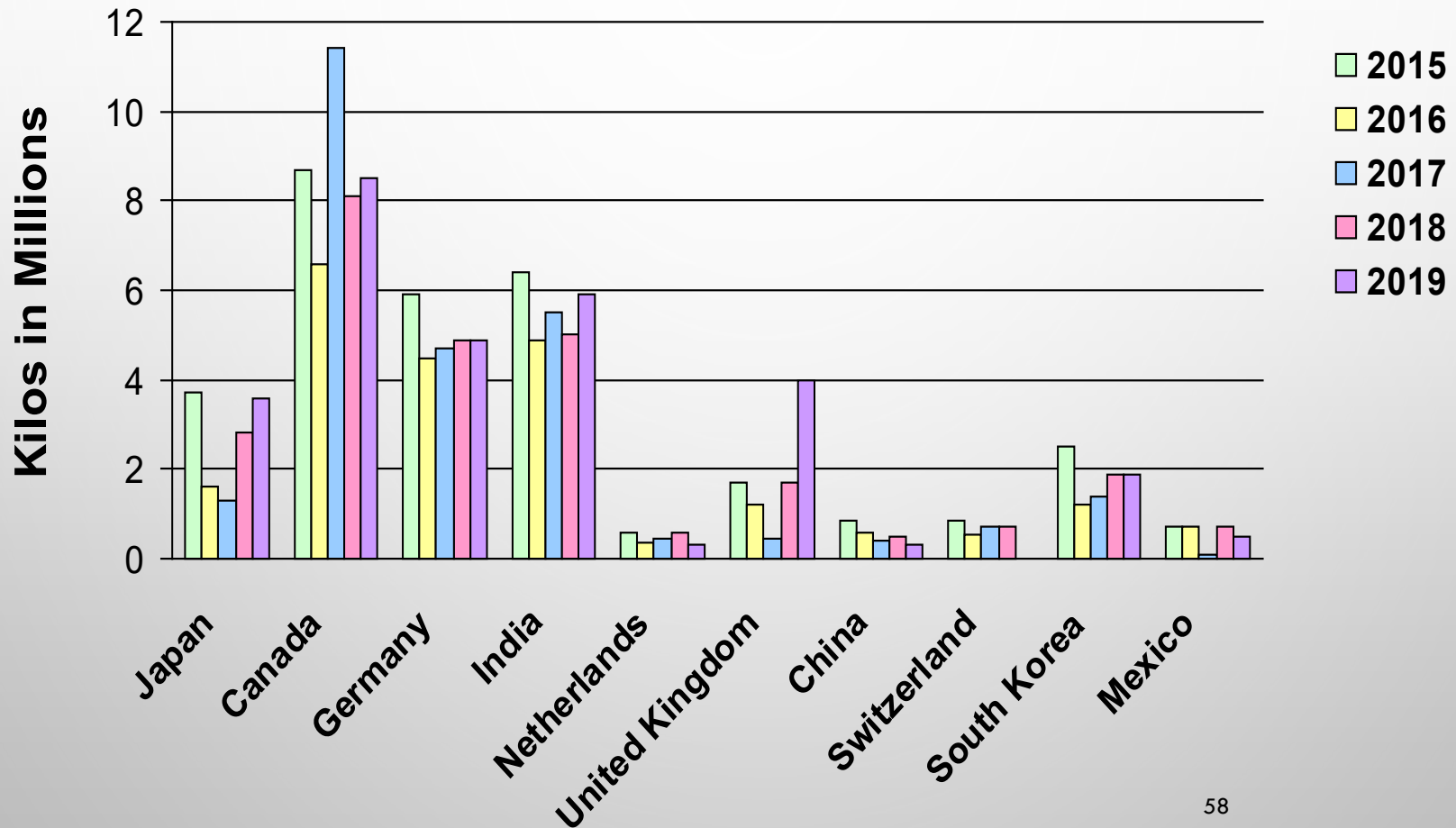


Source: U.S. Census Bureau



MAJOR INK IMPORTS

NAICS 32591



EMERGING ISSUES

COVID-19

KEY POINTS:

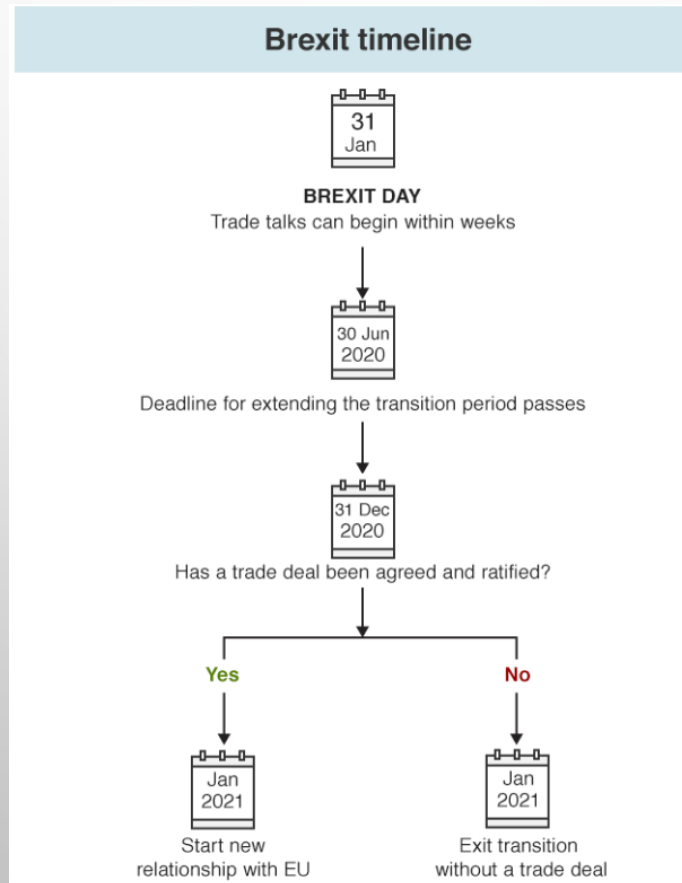
- THE OUTBREAK OF THE NOVEL CORONAVIRUS (COVID-19) IS FOR THE TIME BEING THE MOST SIGNIFICANT BLACK SWAN OF 2020 AND POSSIBLY THE LARGEST SINCE THE END OF THE SECOND WORLD WAR FOR MOST OF THE WORLD ECONOMIES
- THE IMPACT OF COVID-19 IS BY NOW SIGNIFICANTLY LARGER THAN SARS IN 2002-2003 AND THUS CANNOT AT THIS STAGE NO LONGER BE COMPARED TO IT; THE NUMBER OF CONFIRMED CASES BY MARCH 25 EXCEEDED 414,000 GLOBALLY WITH FEW COUNTRIES UNAFFECTED; THE NUMBER OF CASES IN EUROPE EXCEEDS 220,500 AND NUMBER OF DEATHS HAS REACHED 12,000
- THE DISTURBANCE TO INDUSTRIAL PRODUCTION AND GLOBAL TRADE FLOWS AND GLOBAL LOGISTIC NETWORKS COULD BE MORE SEVERE DUE TO A DRAG CAUSED BY THE PROLONGED PRODUCTION SHUTDOWNS
- THE CENTER OF THE COVID-19 PANDEMIC ACCORDING TO THE WHO IS IN EUROPE WITH ITALY (ESPECIALLY LOMBARDIA) AND SPAIN THE MOST AFFECTED STATES WITH HEALTH SYSTEMS UNDER EXTREME PRESSURE
- THE GLOBAL SPREAD OF THE COVID-19 EPIDEMIC IS THE SINGLE BIGGEST RISK FACING THE WORLD ECONOMY IN EARLY 2020; FROM AN ECONOMIC POINT OF VIEW Q1 IS LOST, Q2 IS UNLIKELY TO BRING A MAJOR IMPROVEMENT
- IHS MARKIT ESTIMATES THAT GLOBAL GROWTH IN 2020 WILL BE 1.7% AND 2.7% IN 2021 AND ARE SIGNIFICANTLY LOWER THAN PRIOR ESTIMATES; THE FORECASTS FOR GLOBAL TRADE HAVE ALSO BEEN CUT BY GTA FORECASTING TO 1.5% IN 2020 AND 3.8% IN 2021
- IN CONTRAST TO THE GLOBAL FINANCIAL CRISIS OF 2008-2009, WE ARE NOW DEALING WITH THE REAL-SIDE CRISIS WITH ACTUAL IMPACT ON PRODUCTION, GLOBAL VALUE AND LOGISTIC CHAINS IN ADDITION ADVERSELY AFFECTING GLOBAL DEMAND AND HAVING A POTENTIAL OF LEADING TO A MAJOR FINANCIAL CRISIS

TRADE COMMISSION REVIEW

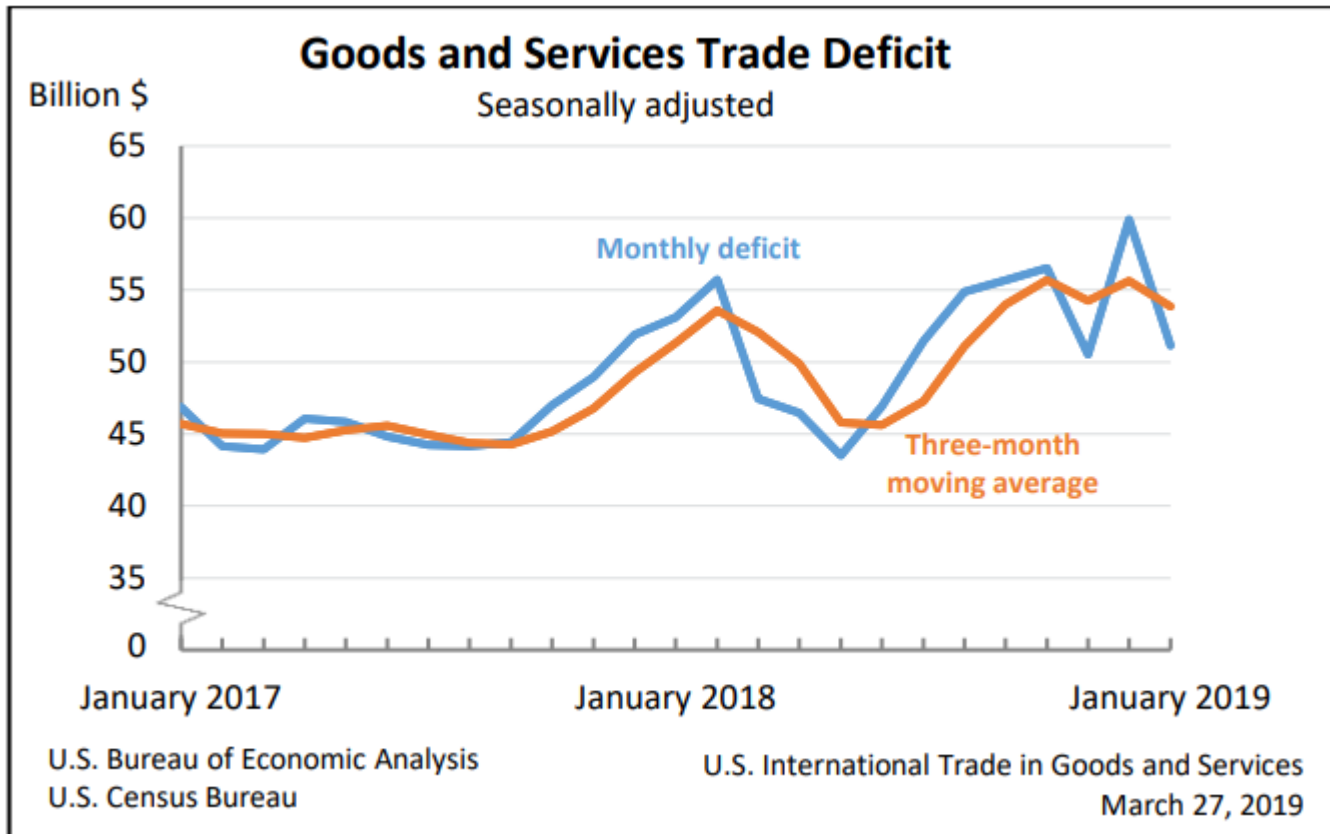
- THE USMCA WAS APPROVED BY THE US CONGRESS AND ENTERED INTO FORCE ON JAN. 16, 2020.
- THE US-JAPAN TRADE AGREEMENT WAS SIGNED BY BOTH COUNTRIES ON OCT. 7, 2019.
- THE US-CHINA PHASE ONE AGREEMENT WAS SIGNED ON JAN. 15, 2020. A PARTIAL ROLLBACK OF TARIFFS HAS ALSO BEEN ANNOUNCED. THE US-CHINA PHASE ONE AGREEMENT WILL NOT REQUIRE CONGRESSIONAL APPROVAL TO ENTER INTO FORCE.

BREXIT

- THE UK LEFT THE EU ON 31 JANUARY 2020 AND HAS NOW ENTERED AN 11-MONTH TRANSITION PERIOD.

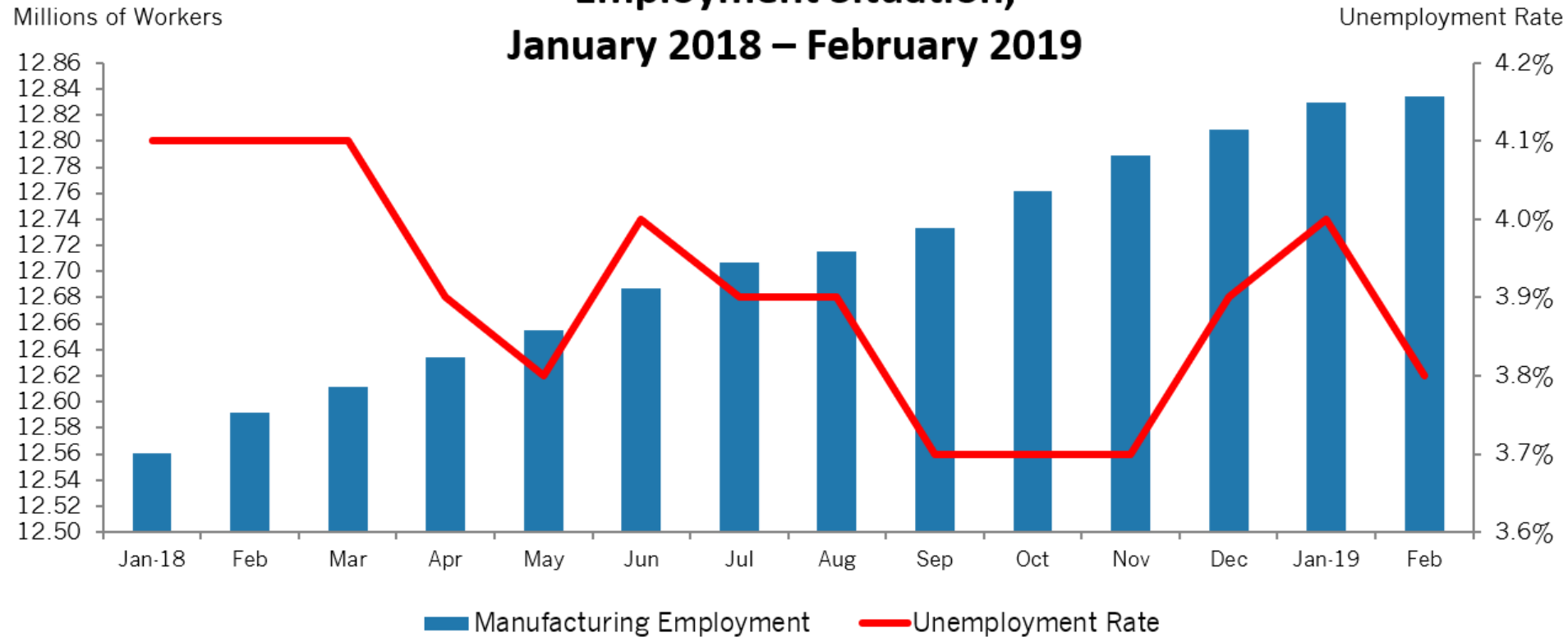


CHINA TRADE ISSUE

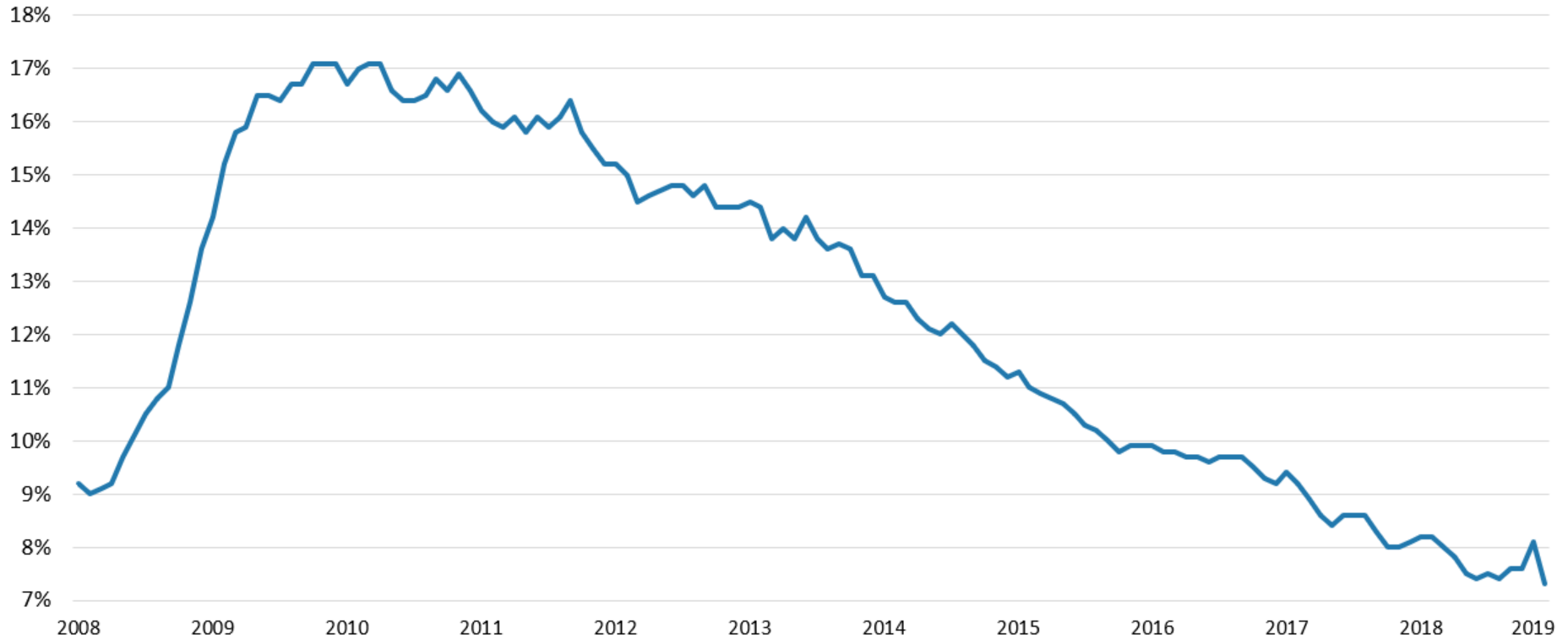


EMPLOYMENT SHORTAGE

Employment Situation, January 2018 – February 2019



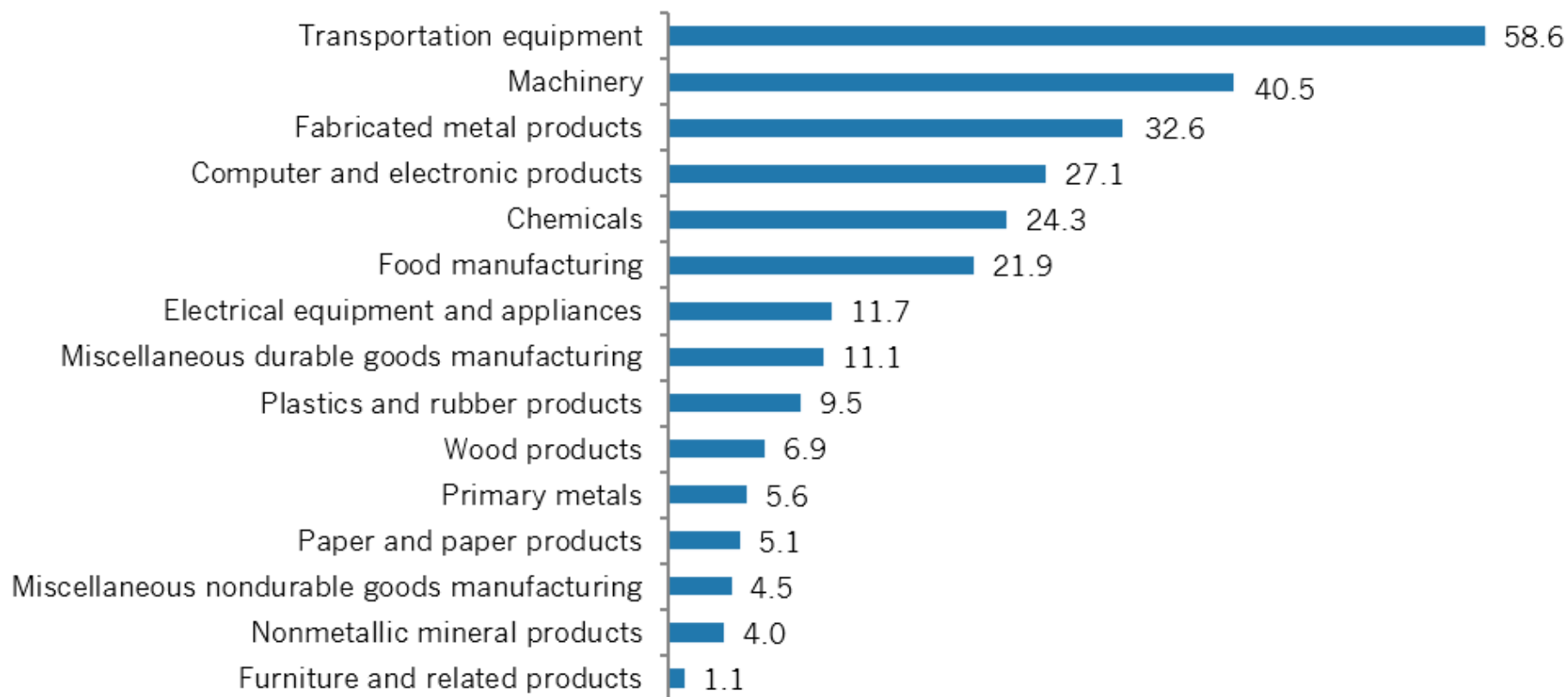
"Real" Unemployment Rate (U-6), 2008–2019



Source: Bureau of Labor Statistics

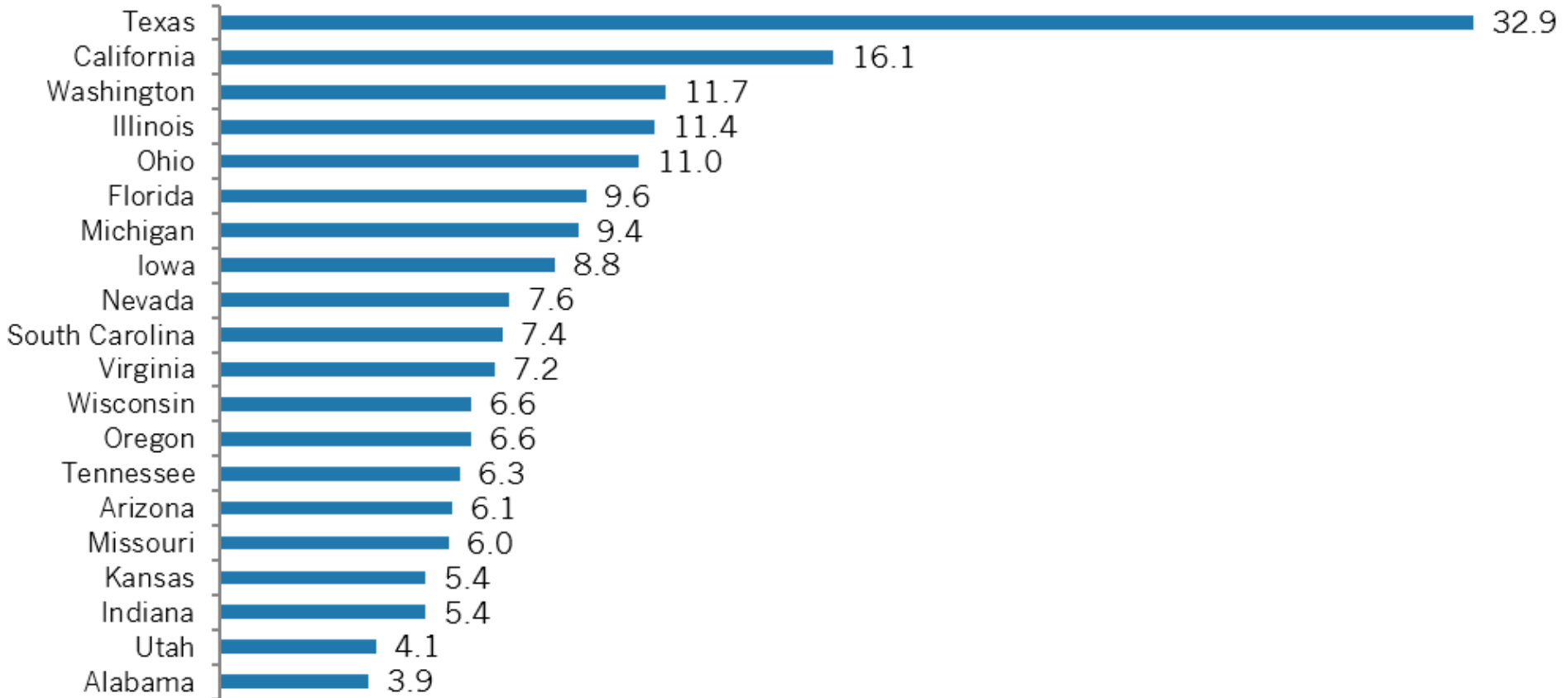
Manufacturing Sectors with the Largest Net Employment Gains

(February 2018 to February 2019, in thousands of employees)



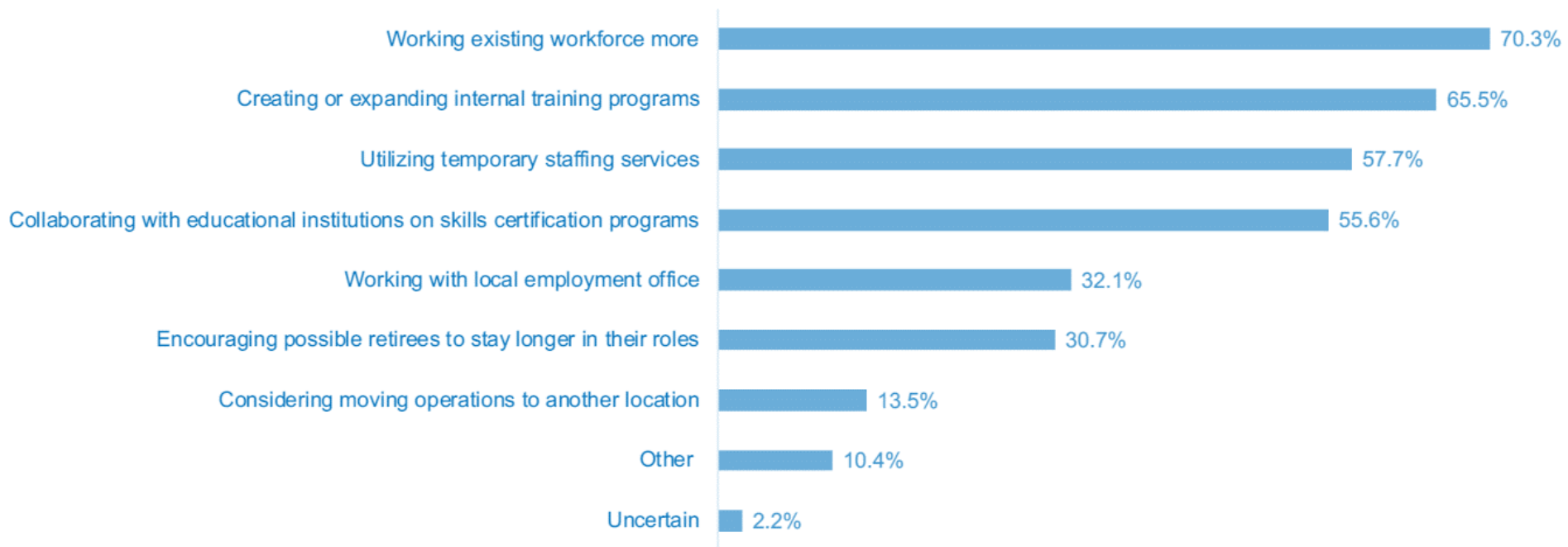
Top 20 States for Manufacturing Job Creation

(January 2018 to January 2019, in Thousands of Workers)



GOVERNMENT

NAM MANUFACTURERS' OUTLOOK SURVEY: HOW FIRMS ARE ADDRESSING THE SKILLS SHORTAGE (FOURTH QUARTER 2018)



Source: National Association of Manufacturers

LEGISLATIVE AND REGULATORY IMPACTS

Issue	% of companies responding
Cost of Employer-Sponsored Health Insurance	89.13%
Tariffs on Imported Raw Materials (i.e., Paper, Aluminum)	71.11%
Postal Rates	70.33%
Corporate Income Tax and Tax Complexity/Compliance	60.44%
Transportation Costs/Regulations	58.24%
Postal Reform to Modernize USPS	56.04%
USPS Operational Regulations	54.94%
Cost of Energy at Facility	54.34%
Capital Gains/Dividends Taxes	48.91%
"Do Not Mail" Initiatives (similar to "Do Not Call")	48.35%
Advertising Tax Deduction (preservation of)	48.35%
Trade Agreements (i.e., U.S.-Mexico-Canada Agreement)	46.66%
Preserving Consumer Choice for Paper Options to Government Information/Services	46.15%
Workforce Development/Retention	43.47%
Cost Recovery/Bonus Depreciation	42.86%
Minimum Wage Increase	42.39%
Sales Tax (Wayfair Decision on State Sales Tax Collection)	42.22%
S-Corp Tax Issues	40.66%
Combating Fees/Penalties on Consumers Choosing Paper Bill Presentment	40.21%

THANK YOU