



Printing Forecast 2017

*The WhatTheyThink Economic and Research Center's
Overview of the Current Economic State of the Industry*

Project Directors: Dr. Joe Webb and Richard Romano

WhatTheyThink?

CONFIDENTIAL

Copyright © 2017 WhatTheyThink
2038 Ford Parkway, #218
St. Paul, MN 55116
WhatTheyThink.com
Prepared by: Dr. Joe Webb, Richard Romano

Table of Contents

Introduction	11
How This Report Is Organized	12
For More Information	12
1. Business Conditions.....	13
Revenues	14
2016 Revenues	14
2017 Revenues	16
Number of Jobs/Orders.....	18
2016 Jobs/Orders	18
2017 Jobs/Orders	20
Profitability	22
2016 Profits	22
2017 Profitability	24
Business Conditions Summary	26
Going Forward	27
2. Challenges, Opportunities, and Investments	28
Top Business Challenges.....	28
Business Opportunities	33
Planned Investments	37
3. New Product Areas	41
4. Industry Events and Trade Shows	44
5. Graphic Communications Industry Economic Trends.....	47
Printing Establishments	47
Births/Deaths	50
Printing Industry Shipments.....	51
Shipments Per Employee	54
Graphic Arts Employment.....	55
Printing Industry Capacity Utilization.....	57
Producer Price Index.....	59
Industry Profits.....	65
Industry Capital Expenditures.....	66
Publishing and Advertising.....	68
The Post Office	70
Closing the Door On Every Door Direct Mail?	71
6. Prevailing Macroeconomic Conditions.....	72
GDP	72
GDP Less Inventories	74
Proprietors' Income	76
Corporate Cash Flow	77
Industrial Production Index.....	78

Durable Goods	80
NFIB Small Business Index	81
S&P 500 Real Sales Per Share	82
Personal Income	83
Real Personal Income	83
Real Disposable Personal Income	84
Consumer Confidence	85
Consumer Sentiment Index	85
Consumer Price Index	87
Employment Cost Index	90
Employment and Unemployment	91
Full-Time Employment	91
Part-Time Employment	93
Multiple Jobholders	94
Disability	95
Unemployment Rate	96
Initial Jobless Claims	97
Employment-to-Population Ratio	98
Labor Force Participation Rate	100
Not In Labor Force	102
Self-Employment	103
Median Household Income Index	104
ERC Recovery Indicators	105
7. Dr. Joe’s Macroeconomic Forecast	106
Taxes, Regulation, and GDP	106
Tax Cuts	106
Economic Expectations	108
Growth Rates	108
Unemployment Rate	108
Fed Rates	108
Interest Rates and Deficit	108
The Fed	108
Government Spending	109
Unemployment	109
Regulation Relief	110
8. Industry Trends for 2017	111
Hot Items	111
Items That Are Warming	112
Items That Should Be Warming	114
9. WhatTheyThink’s 2017 Commercial Printing Forecast	116
GDP Growth-Based Forecasts	116
The WhatTheyThink ERC Forecast	120
The Last Word	121
Appendix A: Methodology	122
Questionnaire	123

Appendix B: Complete WhatTheyThink Survey Results129

- Business Conditions129
 - 2016 Revenues129
 - 2017 Revenues129
 - 2016 Jobs/Orders130
 - 2017 Jobs/Orders130
 - 2016 Profits131
 - 2017 Profits131
 - Business Conditions Summary132
- Business Challenges133
- Business Opportunities134
- Planned Investments136
- New Product Areas137
- Industry Events and Trade Shows138

Appendix C: ASM Value of Shipments139

Table of Figures

Figure 1. In terms of your 2016 <u>revenues</u> , how do they compare to 2015? All Respondents, Fall 2016	14
Figure 2. How do you expect your 2017 <u>revenues</u> to compare to 2016? All Respondents, Fall 2016	16
Figure 3. In terms of your 2016 <u>jobs/orders</u> , how do they compare to 2015? All Respondents, Fall 2016	18
Figure 4. How do you expect your 2017 <u>jobs/orders</u> to compare to 2016? All Respondents, Fall 2016	20
Figure 5. In terms of your 2016 profitability, how did it compare to 2015? All Respondents, Fall 2016	22
Figure 6. How do you expect your 2017 <u>profitability</u> to compare to 2016? All Respondents, Fall 2016	24
Figure 7. In the next 12 months, which of the following will be your biggest business challenges? All Respondents, Fall 2016 (multiple responses permitted)	28
Figure 8. In the next 12 months, which of the following represent your best new business opportunities? All Respondents, Fall 2016 (multiple responses permitted)	33
Figure 9. Which of the following investment items have you budgeted for and plan to acquire in the next 12 months? All Respondents, Fall 2016 (multiple responses permitted)	37
Figure 10. Do you plan to add any of the following capabilities in the next 12 months? All Respondents, Fall 2016 (multiple responses permitted)	41
Figure 11. Which of the following events are you planning to attend in 2017? All Respondents, Fall 2016 (multiple responses permitted)	44
Figure 12. U.S. Commercial Printing Establishments by Size, 2014	48
Figure 13. Change In U.S. Commercial Printing Establishments By Size, 2001–2021	49
Figure 14. Printing Industry Establishment Births/Deaths, 1999–2013.....	50
Figure 15. Monthly U.S. Commercial Printing Shipments, 2014–2016	51
Figure 16. Year-to-Date U.S. Commercial Printing Shipments, 2015 vs. 2016.....	52
Figure 17. Annual U.S. Commercial Printing Shipments, 1995–2018fc	53
Figure 18. Printing Shipments Per Employee, 1992–2016.....	54
Figure 19. Number of Employees Per Establishment, 1998–2014	56
Figure 20. Printing Industry Capacity Utilization, 1975–2016.....	58
Figure 21. Percent Change In the PPI for Commercial Offset Printing, 2007–2016	59
Figure 22. Percent Change In the PPI for Digital Printing, 2007–2016.....	60

Figure 23. Percent Change In the PPI for Other Commercial Printing, 2007–2016.....60

Figure 24. Percent Change In the CPI vs. PPI for Commercial Offset and Digital Printing, 2007–2016.....61

Figure 25. Percent Change In PPI for Selected Print Processes Categories, 2008–201662

Figure 26. Net Annual Decline In Printing Prices vs. CPI, 2007–201663

Figure 27. Percent Change In the CPI vs. PPI for Printing Prices, Postal Costs, Wireless Communications, and Computers, 2007–2016.....64

Figure 28. Printing Industry Shipments vs. Profits, Q4 1995–Q1 2016.....65

Figure 29. U.S. Commercial Printing Capital Expenditures as a Percentage of Revenues, 1967–2014.....67

Figure 30. U.S. Commercial Printing Industry Inflation Adjusted Capital Expenditures, 2003–2014.....67

Figure 31. Inflation-Adjusted Annualized U.S. Publishing & Advertising Revenues, 3Q 2004–3Q 2016.....69

Figure 32. Index of the Number of USPS Pieces By Mail Class, Q4 2000–Q2 2016 (2000=100).....70

Figure 33. Number of Every Door Direct Mail Pieces Per Quarter (Millions of Pieces), Q4 2011–Q3 2016.....71

Figure 34. Percent Year-Over-Year Change In Real GDP (Blue Line) vs. Quarter-to-Quarter (Green Line), Q3 2011–Q3 2016.....72

Figure 35. Percent Change In Real GDP, Year Over Year, 1975–2015.....73

Figure 36. Percent Year-Over-Year Change In Real GDP vs. Real GDP Without Inventories, Q3 2011–Q3 2016.....75

Figure 37. Percent Change In Proprietors’ Income vs. GDP, Q3 2011–Q3 2016.....76

Figure 38. Percent Change In Corporate Cash Flow, Q3 2011–Q3 2016.....77

Figure 39. Percent Change in Industrial Production Index, 2012–2016.....78

Figure 40. Industrial Production Index, 2007–2016.....79

Figure 41. CPI-Adjusted Durable Goods Orders, 2012–2016.....80

Figure 42. NFIB Small Business Economic Satisfaction Index, 1975–2015.....81

Figure 43. S&P 500 Real Sales Per Share, 2000–201682

Figure 44. Real Personal Income, 2012–201683

Figure 45. Real Disposable Personal Income, 2007–201684

Figure 46. Consumer Sentiment Index, 1978–201686

Figure 47. Percent Change In CPI, 2006–201687

Figure 48. Percent Change In CPI for Selected Items, 2007–2016.....88

Figure 49. CPI for Selected Items Indexed to Start of the Recession, 2007–201689

Figure 50. Employment Cost Index, 2002–201690

Figure 51. Number of Employed Full Time, 2008–2016.....91

Figure 52. Full-Time Employed As a Percentage of the Workforce, 1970–201592

Figure 53. Part-Time Employed As a Percentage of the Workforce, 1970–2015.....93

Figure 54. Multiple Jobholders As a Percentage of the Workforce, 1996–201694

Figure 55. Not In Labor Force Due to Disability As a Percentage of the Workforce,
2009–201695

Figure 56. Unemployed As a Percentage of the Workforce, 2007–201696

Figure 57. Initial Jobless Claims, Four-Week Moving Average, 1970–2010.....97

Figure 58. Employment-to-Population Ratio, 2007–201698

Figure 59. Employment-to-Population Ratio for 25 to 54-Year-Old Workers,
2007–201699

Figure 60. Labor Force Participation Rate, 1950–2016.....100

Figure 61. Labor Force Participation Rate for 25 to 54-Year-Old Workers,
1950–2016101

Figure 62. Not In Labor Force, 1980–2015102

Figure 63. Self-Employed As a Percentage of the Workforce, 2007–2016103

Figure 64. Median Household Income Index, 2000–2016.....104

Table of Tables

Table 1. In terms of your 2016 <u>revenues</u> , how do they compare to 2015? Small, Medium, and Large Print Businesses, Fall 2016	14
Table 2. How do you expect your 2017 <u>revenues</u> to compare to 2016? Small, Medium, and Large Print Businesses, Fall 2016	16
Table 3. In terms of your 2016 <u>jobs/orders</u> , how do they compare to 2015? Small, Medium, and Large Print Businesses, Fall 2016	18
Table 4. How do you expect your 2017 <u>jobs/orders</u> to compare to 2016? Small, Medium, and Large Print Businesses, Fall 2016	20
Table 5. In terms of your 2016 <u>profitability</u> , how did it compare to 2015? Small, Medium, and Large Print Businesses, Fall 2016	22
Table 6. How do you expect your 2017 profitability to compare to 2016? Small, Medium, and Large Print Businesses, Fall 2016	24
Table 7. 2016 vs. 2015 Average Percentage Change in Revenues, Orders, and Profits Small, Medium, and Large Print Businesses, Fall 2016	27
Table 8. Expected 2017 vs. 2016 Average Percentage Change in Revenues, Orders, and Profits Small, Medium, and Large Print Businesses, Fall 2016.....	27
Table 9. In the next 12 months, which of the following will be your biggest business challenges? Small, Medium, and Large Print Businesses, Fall 2016 (multiple responses permitted).....	29
Table 10. In the next 12 months, which of the following represent your best new business opportunities? Large, Medium, and Small Print Businesses, Fall 2016 (multiple responses permitted).....	34
Table 11. Which of the following investment items have you budgeted for and plan to acquire in the next 12 months? Small, Medium, and Large Print Businesses, Fall 2016 (multiple responses permitted).....	38
Table 12. Do you plan to add any of the following capabilities in the next 12 months? Small, Medium, and Large Print Businesses, Fall 2016 (multiple responses permitted)	41
Table 13. Which of the following events are you planning to attend in 2017? Small, Medium, and Large Printers, Fall 2016 (multiple responses permitted)	44
Table 14. Graphic Arts Employment, 2015 vs. 2016.....	55
Table 15. Printing Profits By Assets, Q2 2015–Q3 2016	65
Table 16. ERC Recovery Indicators, 12/05/2016	105
Table 17. Three Printing Shipment Scenarios	118
Table 18. Printing Shipments GDP Model Forecast Using Static Growth Rate	119
Table 19. Regression Models for Printing Shipments	119
Table 20. Forecast Models and WTT Forecast.....	120

Table 21. In terms of your 2016 revenues, how do they compare to 2015?
 Responses by Employee Size, Fall 2016..... 129

Table 22. How do you expect your 2017 revenues to compare to 2016?
 Responses by Employee Size, Fall 2016..... 129

Table 23. In terms of your 2016 jobs/orders, how do they compare to 2015?
 Responses by Employee Size, Fall 2016..... 130

Table 24. How do you expect your 2017 jobs/orders to compare to 2016?
 Responses by Employee Size, Fall 2016..... 130

Table 25. In terms of your 2016 profitability, how did it compare to 2015?
 Responses by Employee Size, Fall 2016..... 131

Table 26. How do you expect your 2017 profitability to compare to 2016?
 Responses by Employee Size, Fall 2016..... 131

Table 27. 2016 vs. 2015 Average % Change in Revenues, Orders, and Profits
 All Responses by Employee Size, Fall 2016 132

Table 28. Expected 2017 vs. 2016 Average % Change in Revenues, Orders, and Profits
 All Responses by Employee Size, Fall 2016 132

Table 29. In the next 12 months, which of the following will be your biggest
 business challenges? Responses by Employee Size, Fall 2016 (multiple
 responses permitted) 133

Table 30. In the next 12 months, which of the following represent your best new
 business opportunities? Responses by Employee Size, Fall 2016 (multiple
 responses permitted) 134

Table 31. Which of the following investment items have you budgeted for and
 plan to acquire in the next 12 months? Responses by Employee Size, Fall 2016
 (multiple responses permitted)..... 136

Table 32. Do you plan to add any of the following capabilities in the next 12 months?
 Responses by Employee Size, Fall 2016 (multiple responses permitted) 137

Table 33. Which of the following events are you planning to attend in 2017?
 Responses by Employee Size, Fall 2016 (multiple responses permitted) 138

Table 34. Value of Shipments of Selected Paper and Print Products (\$ Million),
 2010–2014 139