

The Certified Public Accountants Who Listen



LG PEN GROUP HOW DO PIA/GATF PROFIT LEADERS WIN/HANDLE PRICE CUTTING

Stuart W. Margolis, CPA, MT

smargolis@MargolisBecker.com

Website:www.MargolisBecker.com

Washington, DC Philadelphia
10001 Derekwood Lane, Suite 210 555 City Line Avenue, Suite 460
Lanham, MD 20706 Bala Cynwyd, PA 19004
888.577.1717 p 301.577.1313 f 301.577.0431 888.577.1717 p 610.667.4310 f 610.667.2099



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WHAT ARE WE GOING TO COVER TODAY?

1. **WHAT CAUSES COMPETITION**
2. **UNDERSTANDING THE MARKET PLACE**
3. **VOLUME VS. PRICING DISCIPLINES**
4. **PROFIT LEADER TRAITS - KEYS TO PROFITABILITY**
5. **PRICING ADVANTAGES**
6. **PRODUCTION / COST ADVANTAGES**

WHAT CAUSES COMPETITION?

| <u>Causes</u> | <u>More Competition</u> | <u>Less Competition</u> |
|-----------------|----------------------------------|----------------------------------|
| Ease of entry | Easy to start a printing company | Hard to start a printing company |
| Technology | Easy to master | Difficult to master |
| Capital costs | Low capital costs | High capital costs |
| Regulatory | Low regulatory hurdles | High regulatory hurdles |
| Managerial | Labor skill is low | Labor skill is high |
| Age of industry | Around forever | Just started |

UNDERSTANDING THE MARKETPLACE

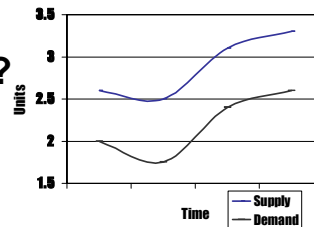
- Supply and Demand
- What do our Customers Want?
- Are we Selling a Commodity?
- Does Cost or the Market set the Price?
- Market Adjustments



UNDERSTANDING THE MARKETPLACE

SUPPLY AND DEMAND

- Are they equal?
- Why is one side always ahead?
- Where is Supply heading
- Where is Demand heading
- What is a “Mature Industry”
- Where were we 100 years ago.



UNDERSTANDING THE MARKETPLACE

SUPPLY AND DEMAND

- Various Media Types
 - *Word of Mouth*
 - *Smoke Signals*
 - *Wall Drawings*
 - *Handwritten on Paper*
 - *Printed on Paper*
 - *Telegraph*
 - *Phonograph*
 - *Radio*
 - *Television*
 - *Cable*
 - *Internet*

UNDERSTANDING THE MARKETPLACE SUPPLY AND DEMAND

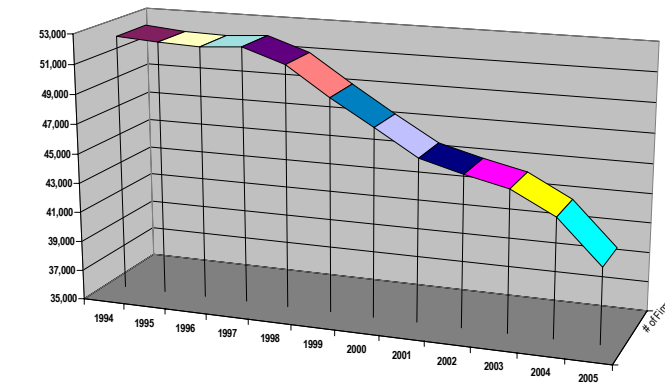
FIGURE 3.2—Print and Electronic Alternatives

State of the Industry participants citing electronic alternatives to print as a significant issue by market. These data were collected in summer and fall 2004. Number of respondents is in parentheses.

| Market | Citing | Market | Citing |
|--|--------|------------------------------------|--------|
| Business Forms (33) | 75.0% | Direct Mail/Direct Marketing (174) | 36.7% |
| Annual Reports (18) | 61.1% | Magazines/Periodicals (45) | 36.4% |
| Newsletters (62) | 60.0% | Financial & Legal (14) | 35.7% |
| Magazine Inserts (14) | 58.3% | Newspaper Inserts (15) | 33.3% |
| Quick Printing (49) | 57.1% | Books (25) | 29.2% |
| Directories, Manuals, and Documentation (57) | 53.7% | Labels, Wrappers, Tags (42) | 26.8% |
| Catalogs (76) | 51.4% | Weekly Papers/Shoppers (12) | 25.0% |
| Stationery (41) | 51.3% | Packaging (31) | 13.3% |
| Promotion (93) | 49.4% | Display Advertising (25) | 8.0% |

UNDERSTANDING THE MARKETPLACE SUPPLY AND DEMAND

Number of Firms



| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| # of Firms | 52,404 | 52,186 | 52,097 | 52,272 | 51,305 | 49,410 | 47,667 | 45,963 | 45,181 | 44,514 | 42,976 | 40,070 |

UNDERSTANDING THE MARKETPLACE WHAT DO OUR CUSTOMERS WANT?

- The market is wide
- The front edge is different than the back edge
- Business is business – give them what they want
- Change is the only thing you can depend on
- Customers will in most cases dictate the change

UNDERSTANDING THE MARKETPLACE ARE WE SELLING A COMMODITY?

- We should define “Commodity”
- Commodities have a fluid marketplace
- Commodity pricing is set by supply and demand
- Commodities are similar products – where 100 lbs of your commodity is the same as 100 lbs of someone else’s commodity



UNDERSTANDING THE MARKETPLACE DOES COST OR THE MARKET SET THE PRICE

- Age old dilemma
- Should you price a job via a cost estimate plus a mark-up
- Should you price a job via feeling out the marketplace
- What are the real differences between the two

UNDERSTANDING THE MARKETPLACE MARKET ADJUSTMENTS

- Outside conditions effect the marketplace
- They typically effect the Demand with either increases or decreases
- They can effect the Supply side (i.e. energy, technology changes, etc.)

VOLUME VS. PRICING DISCIPLINES

PRODUCT COST ANALYSIS

| | | |
|---------------------------------------|--------------|-----------------|
| ANNUAL BUDGET | | |
| Sales | | \$ 5,000 |
| Costs | | |
| Variable | \$ 3,000 | |
| Fixed | <u>1,000</u> | |
| | | <u>4,000</u> |
| Profit | | <u>\$ 1,000</u> |
| OTHER DATA | | |
| Produced and Sold (number of widgets) | | <u>4</u> |
| Cost per Widget | | |
| Variable | \$ 750 | |
| Fixed | <u>250</u> | |
| | | <u>\$ 1,000</u> |
| Profit mark-up | | <u>25%</u> |

VOLUME VS. PRICING DISCIPLINES

| | | |
|-------------------------------|------------|-----------------|
| ESTIMATE | | |
| # of Widgets to be Sold | | <u>1</u> |
| Cost per Widget | | |
| Variable | \$ 750 | |
| Fixed | <u>250</u> | |
| Total Cost | | <u>1,000</u> |
| Profit Mark-up @ 25% | | <u>250</u> |
| Widget's Target Selling Price | | <u>\$ 1,250</u> |

VOLUME VS. PRICING DISCIPLINES

ABC WIDGET CO. PRODUCT COST ANALYSIS

| | 1st WIDGET | 2nd WIDGET | 3rd WIDGET | 4th WIDGET | TOTAL |
|---------------|---------------|---------------|---------------|---------------|----------|
| Sold For | \$ 900 | \$ 1,500 | \$ 1,500 | \$ 1,100 | \$ 5,000 |
| Cost | 1,000 | 1,000 | 1,000 | 1,000 | 4,000 |
| Profit (Loss) | \$ (100) | \$ 500 | \$ 500 | \$ 100 | \$ 1,000 |

Is it worth selling the 1st Widget for a Loss?

VOLUME VS. PRICING DISCIPLINES

| | 1st WIDGET | 2nd WIDGET | 3rd WIDGET | 4th WIDGET | TOTAL |
|---------------|---------------|---------------|---------------|---------------|----------|
| Sold For | \$ - | \$ 1,500 | \$ 1,500 | \$ 1,100 | \$ 4,100 |
| Cost | | | | | |
| Variable | | 750 | 750 | 750 | 2,250 |
| Fixed | 250 | 250 | 250 | 250 | 1,000 |
| | 250 | 1,000 | 1,000 | 1,000 | 3,250 |
| Profit (Loss) | \$ (250) | \$ 500 | \$ 500 | \$ 100 | \$ 850 |

Was it worth selling the 1st Widget for a Loss?

VOLUME VS. PRICING DISCIPLINES

When we don't sell

- Variable Costs Disappear
- Fixed Costs Stay the Same
- We Earn Less Profit

When we do sell

- Variable Costs Increase
- Fixed Costs Stay the Same
- We Earn More Profit

Any Sale in Excess Over Variable Cost Helps Covers Fixed Costs

VOLUME VS. PRICING DISCIPLINES

- **Theory**

Any Sale in Excess Over Variable Cost Helps Covers Fixed Costs

- **Reality**

If You Sell Everything Below Costs and You Don't Sell Enough – You Will Lose Money

VOLUME VS. PRICING DISCIPLINES

OVERHEAD COMPONENTS

| | | |
|---------------------------|----|---|
| • FACTORY PAYROLL | \$ | X |
| • FACTORY EXPENSES | | X |
| • ADMINISTRATIVE EXPENSES | | X |
| • SELLING EXPENSES | | X |
| • INTEREST EXPENSE | | X |

VOLUME VS. PRICING DISCIPLINES

- Why increase fixed overhead when you are selling below costs?
- Don't add fixed overhead until you are selling at cost or above

PROFIT LEADER TRAITS - KEY DIFFERENCES

PRODUCTION EFFICIENCY COST LEADERS vs. DIFFERENTIATED VALUE ADDED

- More Internal
 - More Print/Ink on Paper
 - Product Specialists
 - Focus Training on Production/Technical
 - More use of Benchmarking - Ratios, Productivity Benchmarks
- More External/Strategic Focus
 - More Prepress, Post Press and Ancillary
 - Customer Specialists
 - Higher Proportion of Payroll to Training

PIA Ratios Keys to Profitability Survey
Dr. Ron Davis, Economist

PIA/GATF FINANCIAL RATIO STUDIES

- VOLUME 1 MANAGEMENT GUIDE TO THE PIA/GATF RATIOS
- VOLUME 2 ALL PRINTERS BY SALES VOLUME & GEOGRAPHIC REGION
- VOLUME 3 ALL PRINTERS BY PRODUCT SPECIALTY
- VOLUME 4 SHEETFED PRINTERS BY SIZE AND GEOGRAPHIC REGION
- VOLUME 5 WEB OFFSET PRINTERS - HEATSET
- VOLUME 6 WEB OFFSET PRINTERS - NON-HEATSET
- VOLUME 7 COMBINATION OFFSET - SHEETFED/WEB
- VOLUME 8 BOOK MANUFACTURERS RATIOS
- VOLUME 9 PRINTERS WITH SALES OVER \$18,000,000
- VOLUME 10 BINDERS
- VOLUME 11 PRINTERS WITH SALES UNDER \$3,000,000
- VOLUME 12 QUICK PRINTERS
- VOLUME 13 FORMS & DOCUMENT PRINTERS
- VOLUME 14 LABEL PRINTERS
- VOLUME 15 DIGITAL PRINTERS
- VOLUME 16 COMMERCIAL & ADVERTISING PRINTERS
- CFA CUSTOMIZED FINANCIAL ANALYSIS

2005 PIA/GATF RATIOS - ALL PRINTERS

SALES = 100%

| | ALL FIRMS REPORTING | | DIFF |
|---|---------------------|----------------|-------|
| | ALL FIRMS | PROFIT LEADERS | |
| SALES OR VALUE OF PRODUCT PRODUCED | <u>100.00</u> | <u>100.00</u> | |
| FACTORY COST OF PRODUCT | | | |
| MATERIALS | | | |
| Paper | 21.87 | 21.20 | |
| Other chargeable materials | 5.69 | 6.05 | |
| Outside services | 7.76 | 7.34 | |
| TOTAL MATERIALS | <u>35.32</u> | <u>34.59</u> | 0.73% |
| FACTORY PAYROLL | 25.81 | 23.92 | 1.89 |
| FACTORY EXPENSES | <u>16.61</u> | <u>14.60</u> | 2.01 |
| TOTAL FACTORY COST OF PRODUCT | <u>77.74</u> | <u>73.11</u> | |
| GROSS PROFIT | <u>22.26</u> | <u>26.89</u> | |
| ADMINISTRATIVE AND SELLING EXPENSES | | | |
| Administrative expenses | 9.79 | 9.31 | 0.48 |
| Selling expenses | <u>8.89</u> | <u>7.62</u> | 1.27 |
| TOTAL ADMINISTRATIVE AND SELLING EXPENSES | <u>18.68</u> | <u>16.93</u> | |
| INCOME BEFORE INTEREST EXPENSE | 3.58 | 9.96 | |
| Interest expense | <u>1.39</u> | <u>0.94</u> | 0.45 |
| OPERATING INCOME | 2.19 | 9.02 | |
| Other income | <u>0.34</u> | <u>0.41</u> | 0.07 |
| INCOME BEFORE INCOME TAXES | <u>2.53</u> | <u>9.43</u> | 6.90% |

2006 PIA/GATF RATIOS - ALL PRINTERS**SALES = 100%**

| | ALL FIRMS REPORTING | | DIFF |
|---|---------------------|-----------------|-------|
| | ALL FIRMS | PROFIT LEADERS | |
| SALES OR VALUE OF PRODUCT PRODUCED | <u>100.00 %</u> | <u>100.00 %</u> | |
| FACTORY COST OF PRODUCT | | | |
| MATERIALS | | | |
| Paper | 21.98 | 20.79 | |
| Other chargeable materials | 5.37 | 5.17 | |
| Outside services | <u>7.77</u> | <u>6.94</u> | |
| TOTAL MATERIALS | 35.12 | 32.90 | 2.22% |
| FACTORY PAYROLL | 25.75 | 24.05 | 1.70 |
| FACTORY EXPENSES | <u>16.98</u> | <u>16.01</u> | 0.97 |
| TOTAL FACTORY COST OF PRODUCT | <u>77.85</u> | <u>72.96</u> | |
| GROSS PROFIT | <u>22.15</u> | <u>27.04</u> | |
| ADMINISTRATIVE AND SELLING EXPENSES | | | |
| Administrative expenses | 9.46 | 8.84 | 0.62 |
| Selling expenses | <u>9.09</u> | <u>7.66</u> | 1.43 |
| TOTAL ADMINISTRATIVE AND SELLING EXPENSES | <u>18.55</u> | <u>16.50</u> | |
| INCOME BEFORE INTEREST EXPENSE | 3.60 | 10.54 | |
| Interest expense | <u>1.44</u> | <u>1.06</u> | 0.38 |
| OPERATING INCOME | 2.16 | 9.48 | |
| Other income | <u>0.58</u> | <u>0.82</u> | 0.24 |
| INCOME BEFORE INCOME TAXES | <u>2.74%</u> | <u>10.30%</u> | 7.56% |

LABOR COSTS

| | <u>% OF SALES</u> | |
|-----------------------------------|----------------------|---------------------------|
| | <u>ALL FIRMS</u> | <u>PROFIT LEADERS</u> |
| LABOR | | |
| FACTORY PAYROLL | 25.75% | 24.05% |
| ADMINISTRATIVE PAYROLL | 6.16 | 5.92 |
| SALES PAYROLL | 7.51 | 6.36 |
| | <u>39.42%</u> | <u>36.33%</u> |
| MATERIALS | <u>35.12%</u> | <u>32.90</u> |
| INCOME BEFORE INCOME TAXES | <u>2.74%</u> | <u>10.30%</u> |
| TOTAL OF ABOVE | <u>77.28%</u> | <u>79.53%</u> |
| OTHER EXPENSES | <u>22.72%</u> | <u>20.47%</u> |

2006 PIA/GATF RATIOS - ALL PRINTERS**VALUE ADDED = 100%**

| | ALL FIRMS REPORTING | |
|---|--------------------------------|---------------------------|
| | ALL FIRMS | PROFIT LEADERS |
| SALES OR VALUE OF PRODUCT PRODUCED | <u>X</u> | <u>X</u> |
| LESS: PAPER, OTHER CHARGEABLE MATERIALS AND OUTSIDE SERVICES | <u>X</u> | <u>X</u> |
| VALUE ADDED BY MANUFACTURE | <u>100.00%</u> | <u>100.00%</u> |
| FACTORY PAYROLL | <u>40.01</u> | <u>36.17</u> |
| FACTORY EXPENSES | <u>26.16</u> | <u>23.70</u> |
| TOTAL FACTORY COST OF PRODUCT | <u>66.17</u> | <u>59.84</u> |
| GROSS PROFIT | <u>33.83</u> | <u>40.13</u> |
| ADMINISTRATIVE AND SELLING EXPENSES | | |
| Administrative expenses | <u>14.44</u> | <u>13.08</u> |
| Selling expenses | <u>14.04</u> | <u>11.44</u> |
| TOTAL ADMINISTRATIVE AND SELLING EXPENSES | <u>28.48</u> | <u>24.52</u> |
| INCOME BEFORE INTEREST EXPENSE | <u>5.35</u> | <u>15.61</u> |
| Interest expense | <u>2.23</u> | <u>1.56</u> |
| OPERATING INCOME | <u>3.12</u> | <u>14.05</u> |
| Other income | <u>0.94</u> | <u>1.27</u> |
| INCOME BEFORE INCOME TAXES | <u>4.06 %</u> | <u>15.32 %</u> |

LABOR COSTS

| | % OF VALUE ADDED | |
|-----------------------------------|----------------------|---------------------------|
| | <u>ALL FIRMS</u> | <u>PROFIT LEADERS</u> |
| LABOR | | |
| FACTORY PAYROLL | 40.01% | 36.17% |
| ADMINISTRATIVE PAYROLL | 9.38 | 8.78 |
| SALES PAYROLL | 11.62 | 9.51 |
| | <u>61.01%</u> | <u>54.46%</u> |
| | | |
| INCOME BEFORE INCOME TAXES | <u>4.06%</u> | <u>15.32%</u> |
| | | |
| TOTAL OF ABOVE | <u>65.07%</u> | <u>69.78%</u> |
| | | |
| OTHER EXPENSES | <u>34.93%</u> | <u>30.22%</u> |

LABOR MANAGEMENT

- **Production Scheduling**
- **Follow Up**
- **Increase in Efficiency**
- **Increase in Productivity**

LABOR COST CONTROLS

- **Reduced Overtime**
- **Lower Hourly Rates**
- **Cross Training**
- **Time Off**

LABOR COST CONTROL LABOR MANAGEMENT

PURPOSE:

- **Maximize Production At The Lowest Cost**

HOW DO YOU HANDLE THE HIGHS AND LOW?

- **Production Hours are Needed When You Have the Work**
- **Production Cost Needs to Disappear When There is No Work**

LABOR COST CONTROL LABOR MANAGEMENT

THEORY

- **What is maximum capacity in a Commercial Print Shop or**
- **What does maximum capacity mean in a Commercial Print Shop**

The Certified Public Accountants Who Listen



LG PEN PEER GROUP MIS: SETTING STANDARDS FOR INCREASED EFFICIENCY

Stuart W. Margolis, CPA, MT

smargolis@MargolisBecker.com

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Washington, DC Philadelphia
10001 Derekwood Lane, Suite 210 555 City Line Avenue, Suite 460
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THIS DISCUSSION IS GOING TO CENTER ON FOUR ELEMENTS

- **Profitability Budgeting -- Profit Planning
(Accounting Function)**
- **Budgeted Hourly Cost Rates
(Accounting & Cost/Production Function)**
- **Production Hours Management
(Cost/Production System Function)**
- **Production Standard Management
(Cost/Production System Function)**

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PROFITABILITY BUDGETING -- PROFIT PLANNING

- **Accounting Function**
- **The Best Way to be Profitable is to Plan for it.**
- **The Best Way to Plan for it is to Prepare a Budget -- PROFIT PLAN**
- **This is a Macro Management Function**

ABC PRESS, INC.
PROFIT PLAN - STATEMENT OF OPERATIONS

| | ANNUAL PROFIT PLAN | % OF VALUE OF PRODUCT PRODUCED | | PIA * | |
|--|----------------------|--------------------------------------|----------|---------------|----------|
| | | | | RATIOS | |
| VALUE OF PRODUCT PRODUCED | \$ 15,600,000 | 100.00 | % | 100.00 | % |
| LESS: MATERIALS | | | | | |
| Paper | \$ 4,134,000 | 26.50 | | 23.68 | |
| Other chargeable materials | 859,200 | 5.51 | | 7.69 | |
| Outside services | 1,092,000 | 7.00 | | 6.92 | |
| | <u>6,085,200</u> | <u>39.01</u> | | <u>38.29</u> | |
| | | <u>% OF</u> | | <u>% OF</u> | |
| | | <u>VALUE</u> | | <u>VALUE</u> | |
| | | <u>ADDED</u> | | <u>ADDED</u> | |
| VALUE ADDED | 9,514,800 | 100.00 | % | 100.00 | % |
| OTHER FACTORY COST OF PRODUCT | | | | | |
| FACTORY PAYROLL | | | | | |
| Supervision | \$ 334,800 | 3.52 | | 3.34 | |
| Indirect labor | 565,200 | 5.94 | | 6.17 | |
| Direct labor | 2,563,200 | 26.94 | | 22.39 | |
| Employee benefits | 330,000 | 3.47 | | 4.35 | |
| Payroll taxes | 270,000 | 2.84 | | 2.54 | |
| | <u>4,063,200</u> | <u>42.71</u> | | <u>38.79</u> | |
| FACTORY EXPENSES | <u>1,880,400</u> | <u>19.76</u> | | <u>22.75</u> | |
| | <u>5,943,600</u> | <u>62.47</u> | | <u>61.54</u> | |
| GROSS PROFIT | 3,571,200 | 37.53 | | 38.46 | |
| ADMINISTRATIVE AND SELLING EXPENSES | | | | | |
| Administrative expenses | 1,028,400 | 10.81 | | 11.96 | |
| Selling expenses | 1,152,000 | 12.11 | | 9.72 | |
| | <u>2,180,400</u> | <u>22.92</u> | | <u>21.68</u> | |
| | <u>1,390,800</u> | <u>14.61</u> | | <u>16.78</u> | |
| INTEREST EXPENSE | <u>252,000</u> | <u>2.65</u> | | <u>1.24</u> | |
| | <u>1,138,800</u> | <u>11.96</u> | | <u>15.54</u> | |
| OTHER INCOME (EXPENSE) | <u>24,000</u> | <u>0.25</u> | | <u>0.92</u> | |
| INCOME BEFORE INCOME TAXES | \$ 1,162,800 | 12.21 | % | 16.46 | % |

*Abstracted from the 2005 PIA Ratio Study for Printers with sales over \$15,000,000 who are classified as Profit Leaders.

BUDGETED HOURLY COST RATES

- This is an Accounting & Cost/Production Function
- Once Your Profit Plan is Complete - Concentrate on Sales
- First Item, Calculate What You Are Going to Cost Your Product At
- Calculate Your Hourly Cost Rates (Budgeted)
- This is a Micro Management Function

SALES/PRICE CALCULATION

| | | | |
|-------------------------------------|--------------|-----------|-----------------|
| MATERIALS | | | |
| Paper | | | \$250 |
| Other chargeable materials | | | 50 |
| Outside services | | | 100 |
| | | | <u>400</u> |
| Materials mark-up at 15% | | | 60 |
| | | | <u>460</u> |
| | | | 460 |
| | | Hourly | |
| | | Cost | |
| | | Rate | |
| COST CENTER COSTS | Hours | \$ | |
| <u>PRE-PRESS</u> | 3 | 90 | 270 |
| PRESS | 6 | 120 | 720 |
| BINDERY | 3 | 50 | 150 |
| | | | <u>1,140</u> |
| TOTAL COST | | | 1,600 |
| PROFIT MARK-UP AT XX% OF TOTAL COST | | | <u>XXX</u> |
| SELLING PRICE | | | <u>\$ X,XXX</u> |

ABC PRESS, INC.
PROFIT PLAN
ALL-INCLUSIVE BUDGETED HOURLY COST RATES

| | PREPRESS | | PRESSES | | | | BINDERY | |
|---|---------------------|------------------|------------------------|--------------------------|------------------------|---------------------|--------------------|-------------------|
| | TOTAL | GENERAL | ELECTRONIC PREPRESS | CONVENTIONAL PREPRESS | 2/C 28", HEIDELBURG | 40" PRESSES | MACHINE BINDERY | HAND BINDERY |
| FACTORY LABOR | | | | | | | | |
| Supervision | \$ 334,800 | \$ 334,800 | | | | | | |
| Indirect labor | 565,200 | 565,200 | | | | | | |
| Direct labor | 2,563,200 | 600 | 598,600 | \$ 435,500 | \$ 104,400 | \$ 825,100 | \$ 283,500 | \$ 315,500 |
| Employee benefits | 330,000 | 73,700 | 55,300 | 39,900 | 11,400 | 87,200 | 30,300 | 32,200 |
| Payroll taxes | 270,000 | 68,500 | 48,500 | 35,500 | 8,500 | 67,500 | 24,000 | 17,500 |
| | <u>4,063,200</u> | <u>1,042,800</u> | <u>702,400</u> | <u>510,900</u> | <u>124,300</u> | <u>979,800</u> | <u>337,800</u> | <u>365,200</u> |
| Allocation of General Expenses | | (1,042,800) | 242,300 | 176,400 | 42,900 | 338,400 | 116,700 | 126,100 |
| | <u>4,063,200</u> | <u>0</u> | <u>944,700</u> | <u>687,300</u> | <u>167,200</u> | <u>1,318,200</u> | <u>454,500</u> | <u>491,300</u> |
| FACTORY EXPENSES | | | | | | | | |
| Depreciation and amortization | 480,000 | 13,000 | 70,000 | 30,000 | 15,000 | 326,000 | 25,000 | 1,000 |
| Equipment rentals | 58,800 | | 58,800 | | | | | |
| Factory supplies and expenses | 380,400 | 65,800 | 76,800 | 51,000 | 12,200 | 152,400 | 20,500 | 1,700 |
| Freight and postage | 12,000 | 12,000 | | | | | | |
| Heat, light and power | 120,000 | 61,700 | 5,100 | 3,400 | 2,100 | 28,800 | 15,500 | 3,400 |
| Insurance expense | 91,200 | 45,800 | 10,600 | 7,700 | 1,900 | 14,600 | 5,000 | 5,600 |
| Packing and shipping supplies | 44,400 | 44,400 | | | | | | |
| Rent | 210,000 | 40,100 | 15,000 | 10,000 | 6,000 | 84,000 | 44,900 | 10,000 |
| Repairs and maintenance | | | | | | | | |
| Building | 60,000 | 11,400 | 4,300 | 2,900 | 1,700 | 24,000 | 12,800 | 2,900 |
| Machinery and equipment | 229,200 | 54,300 | 36,000 | 12,000 | 6,000 | 108,000 | 11,700 | 1,200 |
| Spoilage | 60,000 | 60,000 | | | | | | |
| Taxes - property | 20,400 | 3,900 | 1,500 | 1,000 | 600 | 8,100 | 4,300 | 1,000 |
| Vehicle expenses | 100,800 | 100,800 | | | | | | |
| Waste removal | 13,200 | 13,200 | | | | | | |
| | <u>5,943,600</u> | <u>526,400</u> | <u>1,222,800</u> | <u>805,300</u> | <u>212,700</u> | <u>2,064,100</u> | <u>594,200</u> | <u>518,100</u> |
| Allocation of General Expenses | | (526,400) | 118,900 | 78,300 | 20,700 | 200,500 | 57,700 | 50,300 |
| TOTAL FACTORY COSTS | <u>5,943,600</u> | <u>0</u> | <u>1,341,700</u> | <u>883,600</u> | <u>233,400</u> | <u>2,264,600</u> | <u>651,900</u> | <u>568,400</u> |
| Administrative, Selling, Interest Expense and Other Income | 2,408,400 | | 543,800 | 358,000 | 94,600 | 917,600 | 264,100 | 230,300 |
| | <u>8,352,000</u> | <u>0</u> | <u>1,885,500</u> | <u>1,241,600</u> | <u>328,000</u> | <u>3,182,200</u> | <u>916,000</u> | <u>798,700</u> |
| Less: Material Mark-up at 15% | (912,900) | | (206,100) | (135,700) | (35,800) | (347,800) | (100,200) | (87,300) |
| ALL INCLUSIVE COSTS | <u>\$ 7,439,100</u> | <u>\$ 0</u> | <u>\$ 1,679,400</u> | <u>\$ 1,105,900</u> | <u>\$ 292,200</u> | <u>\$ 2,834,400</u> | <u>\$ 815,800</u> | <u>\$ 711,400</u> |
| TOTAL AVAILABLE HOURS | 115,846 | | 24,167 | 19,496 | 4,394 | 19,773 | 16,239 | 31,777 |
| Chargeable hours @ 70% | 81,093 | | 16,917 | 13,647 | 3,076 | 13,841 | 11,367 | 22,244 |
| Chargeable hours @ 75% | 86,885 | | 18,125 | 14,622 | 3,296 | 14,830 | 12,179 | 23,833 |
| Chargeable hours @ 80% | 92,678 | | 19,334 | 15,597 | 3,515 | 15,818 | 12,991 | 25,422 |
| Chargeable hours @ 85% | 98,468 | | 20,542 | 16,572 | 3,735 | 16,807 | 13,803 | 27,010 |
| All-Inclusive Budgeted Hourly | | | | | | | | |
| Cost Rates @ 70% Utilization | | | \$ 99.27 | \$ 81.04 | \$ 94.99 | \$ 204.78 | \$ 71.77 | \$ 31.98 |
| Cost Rates @ 75% Utilization | | | \$ 92.66 | \$ 75.63 | \$ 88.65 | \$ 191.13 | \$ 66.98 | \$ 29.85 |
| Cost Rates @ 80% Utilization | | | \$ 86.86 | \$ 70.90 | \$ 83.13 | \$ 179.19 | \$ 62.80 | \$ 27.98 |
| Cost Rates @ 85% Utilization | | | \$ 81.75 | \$ 66.73 | \$ 78.23 | \$ 168.64 | \$ 59.10 | \$ 26.34 |

**ABC PRESS, INC.
THE BIG ESTIMATE**

TARGET SELLING PRICE

MATERIALS

| | | |
|-----------------------------|----|------------------|
| Paper | \$ | 4,134,000 |
| Other chargeable materials | | 859,200 |
| Outside services | | 1,092,000 |
| | | <u>6,085,200</u> |
| Materials mark-up at 15.00% | | <u>912,900</u> |

\$ 6,998,100

COST CENTER COSTS

Electronic Prepress

| | <u>Hours</u> | <u>Rate</u> | |
|---------|--------------|-------------|---------|
| Desktop | 10,875 | \$ 90 | 978,750 |
| Dolev | 3,625 | 120 | 435,000 |
| Scanner | 3,625 | 110 | 398,750 |

Conventional Prepress

| | | | |
|------------------|-------|----|---------|
| Camera/Stripping | 7,311 | 75 | 548,325 |
| Misomex | 731 | 75 | 54,825 |
| Platemaking | 2,924 | 65 | 190,060 |
| Proofing | 3,656 | 65 | 237,640 |

2/C 28", Heidelberg

| | | | |
|----------|-------|-----|---------|
| 1/C Work | 703 | 80 | 56,240 |
| 2/C Work | 2,812 | 100 | 281,200 |

40" presses

| | | | |
|----------|-------|-----|-----------|
| 1/C Work | 790 | 115 | 90,850 |
| 2/C Work | 3,164 | 145 | 458,780 |
| 3/C Work | 791 | 165 | 130,515 |
| 4/C Work | 6,327 | 190 | 1,202,130 |
| 5/C Work | 2,373 | 220 | 522,060 |
| 6/C Work | 2,373 | 250 | 593,250 |

Machine Bindery

| | | | |
|-----------------|-------|----|---------|
| Cutting | 2,598 | 65 | 168,870 |
| Folding | 6,496 | 65 | 422,240 |
| Saddle Stitcher | 2,598 | 80 | 207,840 |
| Other Machines | 1,299 | 70 | 90,930 |

Hand Bindery

| | | | |
|---------------|--------|----|---------|
| Hand Bindery | 20,338 | 32 | 650,816 |
| Small Machine | 5,084 | 35 | 177,940 |

7,897,011

TOTAL COST

14,895,111

PROFIT MARK-UP AT 15% OF TOTAL COST

2,234,267

TARGET SELLING PRICE

17,129,378

RESERVE AVAILABLE FOR NECESSARY REDUCTIONS

(1,529,378)

PROFIT PLAN SALES

\$ 15,600,000

PRODUCTION HOURS MANAGEMENT

- This is a Cost/Production System Function
- Once You Completed the Profit Plan and HCR's Then Hour Management Will Evaluate Profitability
- Compare Actual Hours to Budgeted Hours
- This is a Micro Management Function

ABC PRESS, INC. ESTIMATED CHARGEABLE HOURS VS. ACTUAL

| COST CENTER | ESTIMATED CHARGEABLE HOURS | ACTUAL CHARGEABLE HOURS | DIFFERENCE | % OF ESTIMATED |
|------------------------------|----------------------------------|-------------------------------|--------------|-------------------|
| Electronic Prepress | | | | |
| Desktop | 10,875 | 11,528 | 653 | 106% |
| Dolev | 3,625 | 3,915 | 290 | 108% |
| Scanner | 3,625 | 3,988 | 363 | 110% |
| | <u>18,125</u> | <u>19,431</u> | <u>1,306</u> | <u>107%</u> |
| Conventional Prepress | | | | |
| Camera/Stripping | 7,311 | 7,677 | 366 | 105% |
| Misomex | 731 | 694 | (37) | 95% |
| Platemaking | 2,924 | 2,778 | (146) | 95% |
| Proofing | 3,656 | 3,912 | 256 | 107% |
| | <u>14,622</u> | <u>15,061</u> | <u>439</u> | <u>103%</u> |
| 2/C 28", Heidelberg | | | | |
| 1/C Work | 703 | 626 | (77) | 89% |
| 2/C Work | 2,812 | 2,868 | 56 | 102% |
| | <u>3,515</u> | <u>3,494</u> | <u>(21)</u> | <u>99%</u> |
| 40" presses | | | | |
| 1/C Work | 790 | 822 | 32 | 104% |
| 2/C Work | 3,164 | 3,480 | 316 | 110% |
| 3/C Work | 791 | 815 | 24 | 103% |
| 4/C Work | 6,327 | 6,074 | (253) | 96% |
| 5/C Work | 2,373 | 2,326 | (47) | 98% |
| 6/C Work | 2,373 | 2,136 | (237) | 90% |
| | <u>15,818</u> | <u>15,653</u> | <u>(165)</u> | <u>99%</u> |
| Machine Bindery | | | | |
| Cutting | 2,598 | 2,624 | 26 | 101% |
| Folding | 6,496 | 6,626 | 130 | 102% |
| Saddle Stitcher | 2,598 | 2,208 | (390) | 85% |
| Other Machines | 1,299 | 1,156 | (143) | 89% |
| | <u>12,991</u> | <u>12,614</u> | <u>(377)</u> | <u>97%</u> |
| Hand Bindery | | | | |
| Hand Bindery | 20,338 | 20,135 | (203) | 99% |
| Small Machine | 5,084 | 5,237 | 153 | 103% |
| | <u>25,422</u> | <u>25,372</u> | <u>(50)</u> | <u>100%</u> |
| TOTAL HOURS | <u>90,493</u> | <u>91,625</u> | <u>1,132</u> | <u>101%</u> |

PRODUCTION STANDARD MANAGEMENT

- **This is a Cost/Production System Function**
- **Problem, Sales Price is Estimate Based, and Estimates Use Production Standards**
- **Compare Your Production Standards to Actual Achieved Production**
- **Differences Should Be Evaluated -- Adjust Standard or Improve Production**
- **This is a Micro Management Function**

ABC PRESS, INC. PRODUCTION STANDARDS VS. ACTUAL

| PROCESS/ COST CENTER | ACTUAL | | | STANDARD | % OF STANDARD |
|-------------------------|---------------|------------|----------|----------|------------------|
| | HOURS | QUANTITY | QTY/HOUR | | |
| 40" presses | | | | | |
| 1/C MR | 316 | 101 | 3.12 | 3.00 | 104.0% |
| 2/C MR | 1,345 | 954 | 1.41 | 1.25 | 113.0% |
| 3/C MR | 356 | 509 | 0.70 | 0.67 | 105.0% |
| 4/C MR | 3,005 | 6,678 | 0.45 | 0.50 | 89.3% |
| 5/C MR | 1,187 | 3,208 | 0.37 | 0.40 | 92.0% |
| 6/C MR | 1,246 | 4,153 | 0.30 | 0.33 | 91.2% |
| Run 1/C | 474 | 3,917,136 | 8,264 | 8,000 | 103.3% |
| Run 2/C | 1,819 | 14,926,714 | 8,206 | 7,800 | 105.2% |
| Run 3/C | 435 | 3,314,700 | 7,620 | 7,500 | 101.6% |
| Run 4/C | 3,322 | 22,915,156 | 6,898 | 7,200 | 95.8% |
| Run 5/C | 1,187 | 7,918,477 | 6,671 | 6,800 | 98.1% |
| Run 6/C | 1,126 | 6,660,290 | 5,915 | 6,500 | 91.0% |
| | 15,818 | | | | |

STUART W. MARGOLIS, CPA. MT

For more than 26 years, Stuart W. Margolis, CPA, contributed to the success of thousands of graphic arts companies through educational yet enjoyable seminars, articles, publications and one-on-one consulting services.



Mr. Margolis helps graphic arts firms re-engineer their management and accounting practices, propelling businesses to profitability through the use of value added concepts, profit planning, cost analysis and monitoring.

Stuart Margolis grew up in the graphic arts industry. Starting in 1979, he worked with his father Harris Margolis, CPA (deceased) and founder of their prestigious firm. Recently, Margolis merged their firm with another management and accounting practice that specializes in the Graphic Arts, Becker and Company. The new firm, MargolisBecker, combines more talents and diversity, offering our printing clients more services and expertise.

As a partner, Stuart performs consulting, accounting, auditing, and tax services for hundreds of graphic arts firms. He prepares and analyzes Printing Industries of America's (PIA/GATF's) Ratio Study, the industry's premier financial benchmarking tool. He is the author of the printing industry's Chart of Accounts and co-author of A Printer's Guide to Profits, 1-2-3.

Mr. Margolis frequently speaks at major industry events, conferences and seminars including: Graph Expo, the PIA/GATF Presidents' Conference and Management Leadership Institute, Printing Industry Financial Executives' conferences, Graphics of the Americas, The Charlotte Show, Midwest Graphics, and others.

As a C.P.A., he is a member of the American and Pennsylvania Institutes of Certified Public Accountants. Mr. Margolis has a B.S. in Economics and Accounting from the University of Pennsylvania's Wharton School of Business and a Master's degree in Taxation from Villanova University