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# *14 Ways to Squeeze a Print Budget*

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Get better results at  
lower costs

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Mike Rickert, Catalog Press

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The information in this booklet contains descriptions of specific strategies that have helped some companies get the most out of their print budgets. These ideas are examples and do not attempt to cover the full range of possibilities that may be available for your company.

If you would like to investigate a new approach for your work, contact us for a free, no pressure consultation.

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## 1. How is it going to be used, how long, and in what environment?

### Cost/Return Case Study for Two Binding Methods

Taking into consideration human behavior, most will keep longer a perfect bound catalog but will discard more quickly a catalog that is saddle bound. A catalog that is going to be used for 6 months or longer should be a 'soft cover book' - adhesive/perfect bound – and with identifying information printed on the spine.

Although this method costs more, it may be a vastly better financial decision if you could weigh the additional cost against the increase in sales. The following is a case study comparing both methods:

#### Assumptions:

1 – You print and distribute 10,000 catalogs every 6 months to who you feel are existing customers.

2 – One fourth (2,500) of those are active customers.

3 – These 2,500 active customers will buy at the average rate of three products per month if they have a catalog in front of them, but the same customers will only reorder one product per month if they no longer have the catalog.

4 – Average selling price per product is \$35 and your gross margins are 30%.

5 – You're considering whether your catalog will be either:

- 96 pages self cover saddle bound (no cover, all text pages), or
- 96 pages plus cover perfect bound (with a printed cover, soft cover book).

6 – Saddle bound last 2 months on your customers' credenzas as reference while perfect bound lasts 6 months.

7 – Print costs are \$3.00 each for saddle bound catalogs, or \$4.50 each for perfect bound catalogs with a cover, and in either case the distribution costs are 60 cents each for postage and mail production.

Based on this information, the following shows what would happen in each scenario:

#### ***Saddle bound self-cover scenario***

	Customers with Catalogs	Sold Units	Sales	Gross Profit
Month 1	2,500	7,500	\$ 262,500	\$ 78,750
Month 2	2,500	7,500	\$ 262,500	\$ 78,750
Month 3	0	2,500	\$ 87,500	\$ 26,250
Month 4	0	2,500	\$ 87,500	\$ 26,250
Month 5	0	2,500	\$ 87,500	\$ 26,250
Month 6	0	<u>2,500</u>	<u>\$ 87,500</u>	<u>\$ 26,250</u>
		25,000	\$ 875,000	\$ 262,500

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### Perfect bound with cover scenario

	Customers with Catalogs	Sold Units	Sales	Gross Profit
Month 1	2,500	7,500	\$ 262,500	\$ 78,750
Month 2	2,500	7,500	\$ 262,500	\$ 78,750
Month 3	2,500	7,500	\$ 262,500	\$ 78,750
Month 4	2,500	7,500	\$ 262,500	\$ 78,750
Month 5	2,500	7,500	\$ 262,500	\$ 78,750
Month 6	2,500	<u>7,500</u>	<u>\$ 262,500</u>	<u>\$ 78,750</u>
		45,000	\$1,575,000	\$ 472,500

### Comparison of both methods

	Saddle Bound	Perfect Bound	Difference
Sales – 6 months	\$ 875,000	\$1,575,000	\$ 700,000
Gross Profit @30%	\$ 262,500	\$ 472,500	\$ 210,000
Print Cost	\$ 30,000	\$ 45,000	\$ 15,000
Distribution Cost	<u>\$ 6,000</u>	<u>\$ 6,000</u>	<u>\$ 0</u>
Total Advertising Cost	\$ 36,000	\$ 51,000	\$ 15,000
Net Gross Margins	\$ 226,500	\$ 421,500	\$ 195,000
Return on Advertising	6.29	8.26	13.00

Your return on a \$36,000 advertising investment for the saddle bound version is more than 6 times with gross profits of \$226,500, or, more than 8 times on a \$45,000 investment with the perfect bound version.

**You gain additional gross profit of \$195,000 on additional sales of \$700,000 by investing an additional \$15,000. Your return on advertising dollar is 13 times this additional investment - to perfect bind with a cover rather than self cover saddle bind.**

### Selecting Uncoated Roll Stocks

Many catalog texts can be printed on uncoated stocks – offsets, groundwoods and newsprint. How do you pick?

Offsets have a longer shelf life; do not yellow in less than a year as does newsprint and groundwood, and are brighter white than groundwood and newsprint.

Smooth offset reproduces photos and matches PMS colors better. Yet, as a paper's smoothness goes up, its opacity decreases.

The best of all worlds in uncoated offsets is 'opaque offset' – it's smooth, bright white, reproduces color best and has limited show through.

**14 Ways to Squeeze a Print Budget**

Generally, offsets are with 90-92 brightness while opaque offsets are up to 96. Smooth offsets have opacities of between 89 for 40# smooth, and up to around 92 for 60# smooth.

Alternative offsets, or groundwood stocks, are processed to a degree to remove some of the agent that yellows that is in newsprint stocks, are off-white, and are a lot less expensive than higher processed offset and opaque, and have a much longer shelf life than newsprint.

Newsprint is the least expensive option, has a high amount of opacity, but yellows in months and therefore has the shortest shelf life of the three.

**Paper Descriptive Terms**

- Brightness – measurement of a paper's reflection of a volume of light
- Whiteness – the ability to reflect all colors of light equally
- Holdout – the ability to uniformly hold ink on the paper's surface; greater holdout means a sharper printed dot and increase in ink gloss
- Opacity – ability to hold an image without it showing through to the other side of the sheet, measured as a percentage (100% is entirely opaque)
- Smoothness – describes the evenness and consistent continuity of the surface of paper
- Finish – final processing of the paper such as gloss coated, dull matte, and texture

***For best photo reproduction & accurate color matching***

The most important factors are:

- Holdout
- Brightness
- Smoothness

***'Show-Through'***

The factors that effect printing showing from the other side of the sheet and from the sheets lying under are:

- Opacity
- Smoothness

**Basic Comparison of 4 Uncoated Text Papers**

Using 10,000 128 pages of text as an example for costs, here are a few relative factors:

	32# newsprint	35# premium 80 GW	60# smooth offset	50# vellum opaque
Brightness	58	80	92	96
Opacity	94	92	92	92
Text Weight	6,177	6,144	10,533	8,778
Weight/ Book Ounces	7.32	7.28	12.48	10.40
Cost Per Pound	\$ 0.24	\$ 0.28	\$ 0.34	\$ 0.42
Paper Cost	\$ 1,482	\$ 1,720	\$ 3,581	\$ 3,687
Paper Cost per Book	\$ 0.15	\$ 0.17	\$ 0.36	\$ 0.37
Spine Thickness	3/16"	3/16"	1/4"	1/4"

## **2. Updates in 3 months but you're out of catalogs NOW!**

### **The Scenario**

There's an 8 page section of a 96 page full color catalog that changes but that information won't be available for 3 months, and you're out of catalogs. You've determined that the cost of not having catalogs is prohibitive.

Assume as well that you print 10,000 catalogs per year and your usage is even throughout the year, so 3 months usage is 2,500.

### **Do now**

- Run 10,000 of the 88 pages that won't change heatset web as (5) 16 page signatures and (1) 8 page signature including bindery set up waste for two binding runs.
- Run sheetfed 2,500 of the current version of the 8 pages sheetfed with 4 plates work and turn and then offline quarter fold.
- Combo run covers for both editions 4/up sheetfed with one up of the current cover (Fall 2008 - 2,500) and three up of the later covers (Winter 2008 - 7,500).
- Bind 2,500 of the 88 page common text pages, the current 8 pages, and 'Fall 2008' covers.

### **Do in three months**

- Run sheetfed the 7,500 8-page section with the new copy with 4 plates for both sides as a work and turn, offline quarter fold, bind with the remaining 88 common text pages and 'Winter 2008' covers.

### **Total additional costs will be reduced to about 22%**

- Proof for 8 additional pages (about 1%)
- Paper for bindery waste and set up for an additional bindery run (about 2%)
- Additional cost to run sheetfed 8 page form for 2,500 (about 10%)
- Additional cost for sheet paper rather than roll paper for 2,500 (about 2%)
- Cost to cut and fold 2,500 sheetfed 8 pages (about 2%)
- 2nd bindery machine set up (about 2%)
- Since your running (5) 16s and (2) 8 page signatures, there's an additional binding pocket set up and run cost (about 2%)
- Additional delivery (about 1%)

If the cost of running all 10,000 catalogs is \$30,000, then it would add up to about \$6,600 more; a small cost relative to the loss in sales for not having catalogs for 3 months, and it's a lot less than not planning and having to rerun catalogs for another \$30,000.

### **3. Good artwork file preparation**

#### **Cost to Fix Art Files**

It costs about \$75 to \$150 per hour to fix files in a sheetfed or web plant. Digital printing companies often charge less, and some even figure fixing file time into their hourly digital printing rates.

#### **Lost Sales Because of a Delayed Selling Tool**

Maybe you're printing something that's part of a distribution with a definite deadline like a trade show or another event, and file-related delays make it impossible to include that selling tool at the event. The profits lost may be a high multiple of the total cost of printing.

#### **Causes of Missed Errors**

The more errors that have to be fixed in files after getting a proof, the greater the chances are that there will be unfixed errors that end up getting printed. Also, with a deadline for an event, the more things are rushed the higher the odds get.

In financial printing where large jobs are often printed within 24 hours, it's not uncommon to end up baling skids of 48 page sections even though someone is checking the sections page by page off the press. The more times the proof is marked up for changes, the greater the likelihood that something gets past those who check.

#### **Checking Basics**

In a perfect world, one person is trained and authorized to check proofs before they can go to a printer, and that person cannot be the person who prepared the artwork.

Corrections should be batched, and a new internal proof generated and checked each time you believe you've noted and fixed all the required corrections. If that cannot be done for the entire book, do it by section until it's completed.

Keep a simple log and note required corrections by section.

It's important as well not to assume that when corrections are made to one part of a section, that good sections aren't affected when handling the files. The same is true for areas that have been corrected earlier. Assume nothing – check the entire document each time a file is handled.

When you get a proof from a printer, check the entire proof and avoid the tendency to just check for earlier corrections. Errors even happen to pdf files when files are processed for proofing and plating.

When you 'sign off' on a proof, you're essentially saying that if the printed job is the same as it is represented by the proof, that you will pay the amount that's in your purchase order. You might as well take the time to be sure!

## Checklist for Good File Preparation

### *File submission*

- The disk has been properly labeled with company name, contact name, phone number and job name(s).
- A directory of the disk content has been printed and is supplied with the disk.
- Only files to be imaged are on the supplied disk.
- Each job on the disk has a unique file name.
- All elements used in the creation of the document (illustrations, images, fonts) have been grouped with the document file and placed in separate folders on the disk – Quark users should collect for output.
- A backup of all files has been used.
- A hard copy proof containing 100% of the file information has been provided.
- The proof indicates trims, bleeds, folds, etc.
- The document text has been printed and proofread.
- Original files are supplied in case editing is necessary.

### *Font preparation*

- All fonts used have been submitted (including those used in imported graphics).
- Both screen and printer fonts have been supplied.
- Stylized fonts were not used in the document.
- Fonts look smooth, not bitmapped or chunky, on laser proof.

### *Color preparation*

- Colors to be printed as ‘spot’ have the process separation button selected as OFF.
- Colors to be printed as ‘process’ have the process separation button selected as ON.
- Custom register or crop marks have been assigned a Registration color of 100C, 100M, 100Y, 100K.
- Items to be printed in Black are not assigned registration color.
- Unused colors have been deleted from the color palettes of both the illustration files and the page layout file.
- Each color has one specific name that is used in all applications (i.e., both Quark and Illustrator list red as ‘300 CV’ – no variation is allowed, not even 300 CVU’).
- A laser proof has been printed ‘as separations’ and the correct number of pages were produced.
- Trapping has been checked.
- Dot gain, screen ruling, and ink number and colors have been verified.

### *Scans & images*

- Proofs (chromalin, color key, dylux, laser, etc) have been requested.
- The desired screen rulings and dot shapes have been specified (for film output jobs).
- Files have a final image resolution of 1.5 to 2 times the screen ruling.
- Scanned images have been cropped and rotated prior to placement within the page layout document.
- Scans and graphics have been converted to CMYK, grayscale – or duotone for spot color jobs only.
- Scans and graphics have been saved as either EPS or TIFF files.
- No TIFF files have a background of ‘none.’

### *Page layout*

- Page setup/document size is correct, as specified in the estimate.
- Allowances have been made for ¼” bleeds.
- Scanned images were not enlarged beyond 110% within the page layout program.
- Extraneous page elements placed on the pasteboard have been deleted (unused anchor points, etc).

#### **4. Cash in on volume discounts with house stocks**

Merchants and mills sell large amounts of particular stocks to printers at discounted pricing. Great savings can be realized by using these 'house stocks.'

Ask for a separate estimate using an equivalent house stock. Ask as well for a sample to be sent to arrive by the next day. Sometimes a house stock sample arrives ahead of the estimate!

#### **More Flexibility with Page Counts**

With web printing, it's common to have to make your catalog's text page count in multiples of 16. Often house stocks are inventoried in ½ rolls that net 8 pages, and sometimes even ¾ rolls for 12 pages. By using 1/2 and 3/4 roll sizes you can lower costs by having your catalog's text pages in 4 page increments and save on paper costs.

If on the other hand the plant is ordering specific paper that's not in inventory, a 10,000 pound minimum for each roll size is probably going to be included your estimate. You will probably end up with a lower cost therefore running an extra 4 to 8 pages to fill up a full roll with unneeded pages in the back. If you're using a house stock, 1/2 and 3/4 roll sizes are often on the floor and you'll only be charged for the paper you use.

#### **Everyone is Motivated**

The biggest factor is that merchants and mills will price much more aggressively a steady stream of paper tonnage. It's in the printer's interests to be able to keep buying this volume so it's priced accordingly, without 10,000 pound mill order minimums, and you're less likely limited to catalogs printed in increments of 16 pages.

Sometimes mills will incorrectly estimate demand and overrun one of their more expensive stocks and then try to quickly move that overrun by offering steep discounts to larger printing plants that can take the tonnage.

Printing companies are primarily interested in generating billable hours on equipment and are motivated to pass on their savings with lower cost paper from their inventory.

By routinely asking for a house stock equivalent as an alternate estimate, and getting a sample along with it, you'll certainly then be able to determine if you can live with any difference in appearance.

## **5. Money for nothing and your jobs for free – use the whole press sheet and consider adjusting final trim sizes**

When getting estimates, ask your vendors for suggestions and alternative quotes based on sizes that are more ‘press friendly’:

### **“Can I get better pricing by slightly modifying the final trim size?”**

When printing boxes for first runs and dies are going to be made, often a small adjustment will allow you to get more units up. This is a big factor of course when the run lengths are large and as you multiply the savings with later runs using the same die.

The most typical sheetfed press can run sheets up to 26 x 40.

Available text stocks for sheetfed presses are most often 25 x 38 or 23 x 35 which fits 16 pages 8-1/2 x 11 when quarter-folded. Cover stocks are commonly run on sheets 20 x 26 for 2 covers up, or 26 x 40 for 4 covers up.

### **Grain Direction**

It’s important to take into consideration grain direction for covers and text stocks. For each, the height, or the direction of the binding edge should also be the direction of the stock. Grain direction is the direction the longer fibers run along the sheet. Paper folds more easily along this direction.

Certainly cover stocks can be scored but there can still be noticeable ‘cracking’ where the cover folds at the binding edge if there’s printing along the fold as is the case with the book’s spine. Aqueous coating tends to make this worse. It’s best to play it safe and have the grain direction run in the same direction as the binding edge.

Books don’t stay flat as easily with nice square edges along the spine, and text pages don’t turn as easily, when the direction of the grain is not the same as the height of a book.

Because of how the paper is made, in web printing, the paper’s grain runs in the same direction as the paper moves through the press. If the web press that’s running your text pages cuts off at 22-3/4”, and the book is an upright 8-3/8 x 10-7/8, then the grain direction in this case is correctly in the direction of the height of the book, which is 10-7/8 (10-7/8, the height of a book when quarter-folded, goes into the cut off).

When printing digest sized books, 5-3/8 x 8-3/8, and using a 22-3/4” cutoff press that’s double parallel folding, the grain is going in the wrong direction since the grain would be running 5-3/8 and the height of the book is 8-3/8. It is however an economical method and probably insignificant if the stock is 50# text or lighter. The book can end up with a slight ‘bow’ or curve along the trim edge going in the 8-3/8” direction. It’s that natural bowing effect that makes the pages a little more difficult to turn.

**How many up?**

To figure how many individual pieces you can get on a press sheet, you write the dimensions of the press sheet size, subtracting 2 inches from each dimension for gripper, color bars, registration marks and other press considerations, and then write under those dimensions the dimensions of your final size.

You first divide the final dimensions into the press sheet dimensions, and then multiply the results. Next you reverse the final piece's dimensions and divide those into the press sheet and again, multiply the results. In most cases you can use the larger number and that is how many pieces up.

**8 x 6, no bleeds, running on a 26 x 40 press sheet**

In the first case you divide 24 by 8 to get 3 (ignore anything less than a whole number), and divide 38 by 6 to get 6. Multiply 3 times 6 and you get 18 up:

Press sheet size	26	<b>40</b>		
Less edge requirements	<u>(2)</u>	<u>(2)</u>		
Net available press sheet	24	38		
Piece size	8	<b>6</b>		
When divided	3	X	6	= 18 up, grain 'short'

Now do it by reversing the dimensions of your piece's final trim size:

Press sheet size	26	<b>40</b>		
Less edge requirements	<u>(2)</u>	<u>(2)</u>		
Net available press sheet	24	38		
Piece size	6	<b>8</b>		
When divided	4	X	4	= 16 up, grain 'long'

Paper grain direction for a press sheet is generally the 2nd dimension, so paper described as 26 x 40 has a grain direction along the 40 inches. In the first case, getting 18 up is more economical, but the grain direction of your piece will be along the 6 inches. Your piece 8 x 6 will be 'grain short.' If that's OK, then that would be the best way to go; 18 up.

Another factor to take into consideration is if your piece bleeds. Generally, you need to add 1/8" to all sides and the method will still work. Your pre-trim size will be 6-1/4" x 8-1/4". By using these dimensions the math will then work for jobs that bleed:

**8 x 6, WITH bleeds, running on a 26 x 40 press sheet**

In the same fashion, first divide 24 by 8-1/4 to get 2 (ignore anything less than a whole number), and divide 38 by 6-1/4 to get 6. Multiply 2 times 6 and you get 12 up:

Press sheet size	26	<b>40</b>		
Less edge requirements	<u>(2)</u>	<u>(2)</u>		
Net available press sheet	24	38		
Pre-trim piece size	8.25	<b>6.25</b>		
When divided	2	X	6	= 12 up, grain 'short'

Again, do it by reversing the dimensions of your piece's final trim size:

Press sheet size	26	<b>40</b>		
Less edge requirements	<u>(2)</u>	<u>(2)</u>		
Net available press sheet	24	38		
Pre-trim piece size	6.25	<b>8.25</b>		
When divided	3	X	4	= 12 up, grain 'long'

**Combining Products on the Same Press Sheet**

If you know you're going to be running 18 pieces up, and you have 6 different pieces all printing with the same colors, you can get all 6 lots, 3-up of each, printed on the same press sheet for the cost of one set of plates and press set up.

**Cases where that may NOT be a good idea**

- They look the same and you take a risk that they can be mixed up when trimming
- Ink train and the effect of adjusting color for one piece that will affect other pieces on the same press sheet. This problem has a greater risk of occurrence when the press sheet is close to the maximum of the press. For example, running a cover stock 23 x 29 or 20 x 26 may be a better idea for a 26 x 40 press.

## 6. Cut postage; calculate and manage piece weights

### Will That Be With One Wafer Seal or Two?

The mailing panel for a self mailer non-flat should have folding on the bottom and one wafer seal at the top holding in the open edge. If you design it the other way, with open end on the bottom, then you have to add 2 wafer seals.

### Check it With the Post Office

Postal regulations often change, as do the rates, so the safest thing to do is to make a sample and bring it to a post office and ask. Checking their website is also informative:

[www.usps.com](http://www.usps.com)

### How to Determine Piece Weight

Ask for the piece weight when getting cost estimates from printers. Since roll stocks are sometimes slightly heavier, and text stocks are sometimes slightly lighter, this needs to be taken into consideration, so leave a little room when trying to get under a particular weight for postage costs.

A weight estimate for an 8-1/2 x 11 48 pages plus cover saddle bound book, with the text being 70# text and the cover being 80# cover is as follows:

For all text, book, groundwood and offsets, the 'basis size' is 25 x 38, which means in this case, for 70#offset (or book, or groundwood, or text), that 500 sheets of the basis size (sheets 25 x 38) will weigh 70 pounds.

1,000 of these basis size sheets would therefore weigh 140 pounds, which is called its 'M-weight;' meaning the weight of 1,000 sheets.

First we translate the M-weight from 25 x 38 to 8-1/2 x 11, the book size, by dividing the weight of 1,000 sheets of the basis size by its dimensions and then multiplying that number by our final trim size's dimensions:

$$140 / 25 / 38 \times 8.5 \times 11 = 13.779 \text{ pounds}$$

This is the weight of 1,000 sheets 8-1/2 x 11, and since each sheet has a front and a back, it's the same was the weight of 2 pages. Since we have 48 pages, or 24 sheets, the total weight of 1,000 texts are:

$$24 \times 13.779 = 330.695 \text{ pounds}$$

The M-weight, or the weight of 1,000 48 page text sections printed on 70# text weight, is 330.695 pounds.

All cover stock weights are based on 20 x 26; its basis size. So, for an 80# cover, 500 sheets weigh 80 pounds. 1,000 of these basis size sheets therefore weigh 160 pounds, which is the M-weight for sheets 20 x 26.

Translating that for 8-1/2 x 11 similarly:

$$160 / 20 / 26 \times 8.5 \times 11 = 28.769 \text{ pounds}$$

This is the weight of 1,000 sheets 8-1/2 x 11, or 2 pages. Since we have a 4 page cover, or the equivalent of 2 sheets, the total weight of 1,000 covers are:

$$2 \times 28.769 = 57.538 \text{ pounds}$$

So, 1,000 books will weigh:

Text M weight	330.695
Cover M weight	<u>57.538</u>
Book M weight	388.233 pounds

If we divide that by 1,000 we have our weight per book in pounds, and, if we multiply that by 16 we have our weight per book therefore in ounces:

$$388.233 / 1,000 \times 16 = 6.212 \text{ ounces}$$

### **Weight & Postage Savings with Lighter Catalog Text Stock**

If opacity is the only issue for using 70# offset, and since 60# opaque ends up with a total cost of about the same or even less than 70# offset, what would happen to our postage cost if we changed the text to 60# opaque?

Our text M weight is 330.695 pounds per thousand texts at 70#, so we divide that number by 70 and multiply by 60:

$$330.695 / 70 \times 60 = 283.453 \text{ pounds for 60# text}$$

60# text:

Text M weight	283.453
Cover M weight	<u>57.538</u>
Book M weight	340.991 pounds

Translating that again to single book weight in ounces:

$$340.991 / 1,000 \times 16 = 5.456 \text{ ounces}$$

If you mail 1st class, postage is \$1.40 each for 70# text version or \$1.233 for the 60# opaque version.

**First class postage savings is therefore \$1,670 per 10,000 pieces by switching to 60# opaque from 70# offset for the text.**

The following grid shows weight per book for 8-1/2 x 11 variations of text and cover weights:

**14 Ways to Squeeze a Print Budget**

Text Pages:	Ounces - Self Cover Booklets/Loose Leaf				Ounces - Plus Cover Booklets - 80# cover				Ounces - Plus Cover Booklets - 100# cover			
	Txt-50#	Txt-60#	Txt-70#	Txt-80#	Txt-50#	Txt-60#	Txt-70#	Txt-80#	Txt-50#	Txt-60#	Txt-70#	Txt-80#
16	1.26	1.51	1.76	2.02	2.19	2.45	2.70	2.95	2.43	2.68	2.93	3.18
20	1.57	1.89	2.20	2.52	2.51	2.82	3.14	3.45	2.74	3.06	3.37	3.69
24	1.89	2.27	2.65	3.02	2.82	3.20	3.58	3.96	3.06	3.44	3.81	4.19
28	2.20	2.65	3.09	3.53	3.14	3.58	4.02	4.46	3.37	3.81	4.25	4.70
32	2.52	3.02	3.53	4.03	3.45	3.96	4.46	4.97	3.69	4.19	4.70	5.20
36	2.83	3.40	3.97	4.54	3.77	4.34	4.90	5.47	4.00	4.57	5.14	5.70
40	3.15	3.78	4.41	5.04	4.08	4.71	5.34	5.97	4.32	4.95	5.58	6.21
44	3.46	4.16	4.85	5.54	4.40	5.09	5.78	6.48	4.63	5.32	6.02	6.71
48	3.78	4.54	5.29	6.05	4.71	5.47	6.23	6.98	4.95	5.70	6.46	7.21
52	4.09	4.91	5.73	6.55	5.03	5.85	6.67	7.49	5.26	6.08	6.90	7.72
56	4.41	5.29	6.17	7.05	5.34	6.23	7.11	7.99	5.58	6.46	7.34	8.22
60	4.72	5.67	6.61	7.56	5.66	6.60	7.55	8.49	5.89	6.84	7.78	8.73
64	5.04	6.05	7.05	8.06	5.97	6.98	7.99	9.00	6.21	7.21	8.22	9.23
68	5.35	6.42	7.50	8.57	6.29	7.36	8.43	9.50	6.52	7.59	8.66	9.73
72	5.67	6.80	7.94	9.07	6.60	7.74	8.87	10.00	6.84	7.97	9.10	10.24
76	5.98	7.18	8.38	9.57	6.92	8.11	9.31	10.51	7.15	8.35	9.55	10.74
80	6.30	7.56	8.82	10.08	7.23	8.49	9.75	11.01	7.47	8.73	9.99	11.25
84	6.61	7.94	9.26	10.58	7.55	8.87	10.19	11.52	7.78	9.10	10.43	11.75
88	6.93	8.31	9.70	11.09	7.86	9.25	10.63	12.02	8.10	9.48	10.87	12.25
92	7.24	8.69	10.14	11.59	8.18	9.63	11.08	12.52	8.41	9.86	11.31	12.76
96	7.56	9.07	10.58	12.09	8.49	10.00	11.52	13.03	8.73	10.24	11.75	13.26
100	7.87	9.45	11.02	12.60	8.81	10.38	11.96	13.53	9.04	10.62	12.19	13.77
104	8.19	9.83	11.46	13.10	9.12	10.76	12.40	14.04	9.36	10.99	12.63	14.27
108	8.50	10.20	11.91	13.61	9.44	11.14	12.84	14.54	9.67	11.37	13.07	14.77
112	8.82	10.58	12.35	14.11	9.75	11.52	13.28	15.04	9.99	11.75	13.51	15.28
116	9.13	10.96	12.79	14.61	10.07	11.89	13.72	15.55	10.30	12.13	13.95	15.78
120	9.45	11.34	13.23	15.12	10.38	12.27	14.16	16.05	10.62	12.51	14.40	16.29
124	9.76	11.72	13.67	15.62	10.70	12.65	14.60	16.56	10.93	12.88	14.84	16.79
128	10.08	12.09	14.11	16.13	11.01	13.03	15.04	17.06	11.25	13.26	15.28	17.29
132	10.39	12.47	14.55	16.63	11.33	13.41	15.48	17.56	11.56	13.64	15.72	17.80
136	10.71	12.85	14.99	17.13	11.64	13.78	15.93	18.07	11.88	14.02	16.16	18.30
140	11.02	13.23	15.43	17.64	11.96	14.16	16.37	18.57	12.19	14.40	16.60	18.80
144	11.34	13.61	15.87	18.14	12.27	14.54	16.81	19.08	12.51	14.77	17.04	19.31
148	11.65	13.98	16.31	18.64	12.59	14.92	17.25	19.58	12.82	15.15	17.48	19.81
152	11.97	14.36	16.76	19.15	12.90	15.30	17.69	20.08	13.14	15.53	17.92	20.32
156	12.28	14.74	17.20	19.65	13.22	15.67	18.13	20.59	13.45	15.91	18.36	20.82
160	12.60	15.12	17.64	20.16	13.53	16.05	18.57	21.09	13.77	16.29	18.80	21.32
164	12.91	15.50	18.08	20.66	13.85	16.43	19.01	21.59	14.08	16.66	19.25	21.83
168	13.23	15.87	18.52	21.16	14.16	16.81	19.45	22.10	14.40	17.04	19.69	22.33
172	13.54	16.25	18.96	21.67	14.48	17.19	19.89	22.60	14.71	17.42	20.13	22.84
176	13.86	16.63	19.40	22.17	14.79	17.56	20.33	23.11	15.03	17.80	20.57	23.34
180	14.17	17.01	19.84	22.68	15.11	17.94	20.78	23.61	15.34	18.17	21.01	23.84
184	14.49	17.39	20.28	23.18	15.42	18.32	21.22	24.11	15.66	18.55	21.45	24.35
188	14.80	17.76	20.72	23.68	15.74	18.70	21.66	24.62	15.97	18.93	21.89	24.85
192	15.12	18.14	21.16	24.19	16.05	19.08	22.10	25.12	16.29	19.31	22.33	25.36
196	15.43	18.52	21.61	24.69	16.37	19.45	22.54	25.63	16.60	19.69	22.77	25.86
200	15.75	18.90	22.05	25.20	16.68	19.83	22.98	26.13	16.92	20.06	23.21	26.36
204	16.06	19.27	22.49	25.70	17.00	20.21	23.42	26.63	17.23	20.44	23.65	26.87
208	16.38	19.65	22.93	26.20	17.31	20.59	23.86	27.14	17.54	20.82	24.10	27.37
212	16.69	20.03	23.37	26.71	17.63	20.96	24.30	27.64	17.86	21.20	24.54	27.88
216	17.01	20.41	23.81	27.21	17.94	21.34	24.74	28.15	18.17	21.58	24.98	28.38
220	17.32	20.79	24.25	27.72	18.26	21.72	25.19	28.65	18.49	21.95	25.42	28.88
224	17.64	21.16	24.69	28.22	18.57	22.10	25.63	29.15	18.80	22.33	25.86	29.39
228	17.95	21.54	25.13	28.72	18.89	22.48	26.07	29.66	19.12	22.71	26.30	29.89
232	18.27	21.92	25.57	29.23	19.20	22.85	26.51	30.16	19.43	23.09	26.74	30.39
236	18.58	22.30	26.01	29.73	19.52	23.23	26.95	30.67	19.75	23.47	27.18	30.90
240	18.90	22.68	26.46	30.23	19.83	23.61	27.39	31.17	20.06	23.84	27.62	31.40
244	19.21	23.05	26.90	30.74	20.15	23.99	27.83	31.67	20.38	24.22	28.06	31.91
248	19.53	23.43	27.34	31.24	20.46	24.37	28.27	32.18	20.69	24.60	28.51	32.41
252	19.84	23.81	27.78	31.75	20.78	24.74	28.71	32.68	21.01	24.98	28.95	32.91
256	20.16	24.19	28.22	32.25	21.09	25.12	29.15	33.18	21.32	25.36	29.39	33.42
260	20.47	24.57	28.66	32.75	21.41	25.50	29.59	33.69	21.64	25.73	29.83	33.92

## **7. Avoid rework costs, mailing delays, and lower carton inventories**

When a piece cannot be inserted by machine, the costs are much higher to convert an envelope, rework the size of the inserted piece, or insert by hand. A significantly delayed mailing as a result can be a loss revenue cost factor as well.

### **Have a Sample Made by Your Printer**

***Use the very paper that's going to be used, send it along with any other pieces for the mailing along with the envelope, and have it OK'd and signed off on by the mailer as machine insertable.***

When packaging is being designed, before a die and sample from the die are made, send along to the box die maker the product that's going into the printed carton.

Lower your investment in printed or non-printed shipping cartons by measuring items that were shipped last quarter. Take these dimensions into consideration when ordering. Many companies unnecessarily have skids of shipping cartons in different sizes because they order as needed.

### 8. Get all the benefits by being able to select the best process

- Digital
- Direct Imaging Offset
- Conventional Offset
- Large Format Offset
- Perfecting Sheetfed
- Coldset Web
- Heatset Web

Sometimes running a text portion of a catalog on an 8/color perfecting sheetfed press is less expensive than running it on a heatset web. Sheetfed paper costs more, heatset webs folds inline while sections produced by sheetfed have to be folded offline in a separate process, but the initial cost to set up a web press are higher.

#### Factors That Determine Final Cost

- Start up costs
- Running costs
- Inline processes
- Cost of paper

Digital printing has none or very low start up costs. Work is often quoted per piece and that price per unit doesn't change by much whether you buy 10 or 500. Sheetfed, perfecting sheetfed and web printing generate significant costs before the first sheet is printed. Proofs, plates, press set up, and paper waste can be a few hundred to over \$1,000 depending on the size of the press and the number of printing units. However, the running cost, or cost per unit after the set up, is much lower than digital printing unit cost.

This chart shows the cost per booklet for 16 pages plus cover, all printing 4 color, and saddle stitched:



## **9. Why overspend on anything? Ideal plant and process for EVERY job in a budget**

### **Widen the Range and Lower Your Costs**

The average local printer has a multi-million dollar investment in 3 or 4 primary presses, smaller equipment to better service their larger customers, sends out about 20% to 40% of their sales to other printers, binders and mailers, and has some binding equipment in house. Most outsourcing they do is based on longstanding relationships, and is not always competitively priced. Reasonably, they are 'duty bound' to create billable hours for their company's equipment as first priority.

There are also specialized plants that focus on one kind of particular kind of work, like trade binders, envelope printers, and web/rollfed printers. They sometimes have their own direct customers, but often the majority of their sales come from other printers who outsource work that has to be run on their specialized equipment. Sometimes a large company with administrative time and training will break up a job into its components and outsource to them as well.

Today, with communications and technologies, such as routine transmission of art files with proofs arriving overnight, being able to find carriers with the fastest and lowest cost routes, most print budgets can be substantially reduced by widening the range of printing processes.

### **Three Basic Fundamentals to Lowering Costs**

- Printing outside the NYC metropolitan area to where fundamental costs are lower - primarily taxes and utilities - in places like the mid west USA, Ontario, and even as close as Pennsylvania.
- Using the correct method of printing - digital, sheetfed, perfecting sheetfed, heatset and non heatset web
- Using plants that have specialized equipment - jet mailing inline on a saddle binder, 4-high non heatset webs for quality full color on uncoated stock, oversized sheetfed presses for high end case bound books, web printing with inline pasting, trimming or direct mail applications.

### **Three Examples Totaling \$1,455,000 in Yearly Savings**

Here are 3 examples with 2 companies where costs were lowered by 40% by just changing a few methods. This work started off in other printing companies certainly because the service and quality were excellent, but those companies and their representatives were limited by their in-house equipment:

#### ***\$75,000 saved annually on pocket folders & inserts***

Philip Morris printed monthly information that went to retailers costing more than \$7,000 for pocket folders, and \$6,000 for several pages of inserts - all run sheetfed each month.

By preprinting a year's requirement of pocket folders in the 9 match colors (Philip Morris blue, Marlboro red, etc), 2/color imprinting and finishing these monthly, the pocket folders went from \$84,000 to \$35,000. By printing 3 color insert sheets on a half web, costs went from \$72,000 to \$45,600.

**14 Ways to Squeeze a Print Budget**

**Costs were lowered by more than \$75,000, 48%, bringing it to \$80,600 from \$156,000 per year (48%):**

	<i>Before</i>		<i>New Method</i>		<i>Savings – 48%</i>	
	Monthly	Annually	Monthly	Annually	Monthly	Annually
Pocket Folders	\$ 7,000	\$ 84,000	\$ 2,900	\$35,000	\$ 4,100	\$49,000
Inserts	<u>\$ 6,000</u>	<u>\$ 72,000</u>	<u>\$ 3,800</u>	<u>\$45,600</u>	<u>\$ 2,200</u>	<u>\$26,400</u>
Total	\$13,000	\$156,000	\$ 6,700	\$80,600	\$ 6,300	\$75,400

Dun & Bradstreet printed workbooks for seminars run around the country as well as 4 page and 8 page advertising brochures for these.

### ***\$180,000 saved annually on seminar workbooks***

There were about 100 active workbook titles and 40% of these reprinted without changes on average every 1-1/2 months. Doubling the reorder size would significantly reduce costs since start up costs were a major factor and at higher quantities it was less expensive to run the text on 1/c web presses.

There were 4 people making decisions in this 'matrix management' system and they needed precise and timely information to change buying habits for lower costs and still meet service goals. A significant portion of the managers' bonuses were based on this performance.

By first reporting monthly possible savings that could have been realized - 'had you ordered February and March in one combined order in February'- they could see what the savings could have been, and this was also measured against what the net cost would be if copy was changed requiring the non-updated inventory portion to be discarded. Eventually we began a column that racked up 'Savings Year to Date - Improved Buying Pattern.'

**By the 2nd year, the average cost per workbook, including all related storage and distribution costs, went from over \$5.20 per workbook to under \$3.40 – an annual savings of \$180,000 (35%).**

### ***\$1,200,000 saved annually on direct mail brochures***

There were just as many 4 and 8 page brochure titles for this work. They began being run on 70# coated and the annual costs were over \$3,000,000. They tested several mailings with 60# vellum offset and found their response rate was unchanged as was the case with running full color on coated stock.

**By changing over to non heatset half webs, and by folding the 8 page brochures with inline spine pasting instead of saddle binding, and they netted a savings of more than \$1,200,000 (40%).**

### **Total amounts returned to print budgets**

	Before	After	Savings	
Philip Morris	\$ 156,000	\$ 80,600	\$ 75,400	48%
Dun & Bradstreet Workbooks	\$ 520,000	\$ 340,000	\$ 180,000	35%
Dun & Bradstreet Brochures	<u>\$3,000,000</u>	<u>\$1,800,000</u>	<u>\$1,200,000</u>	<u>40%</u>
	\$3,676,000	\$2,220,600	\$1,455,400	40%

## **10. Cash in on past budget overruns**

Audit past experience, determine new directions with good consultation, and you can set up new methods and set measurable goals related to company or project objectives.

It's tedious but rewarding when you can get more done with the same budget.

### **Basic Planning Outline**

- What did we expect and what happened instead? Detail this with amount over proposal and budget, days project was delayed, and estimate as close as possible the cost of delays (cost of additional administrative time, net margins on loss of sales, etc.).
- Were our assumptions correct? The specifications may have changed from the time of the budget – for what reason?
- Was the variance because of internal or external causes?
- Was this an uncontrollable event or could it have been managed?
- Is there a simple process change would correct a reasonable percentage of variance? Who will be responsible for implementing this change and are they prepared and authorized?

### **Asking your Vendors for Suggestions Costs Nothing**

Most vendors assume that difficult service requirements that often lead to budget variances are routine for the client and cannot be questioned. Some minor changes can often make the difference.

In Method #9, 'Why overspend on anything?' I was in my early 20s and enlisted by the head of a division of a large customer to find ways to lower costs by 10% for their seminar workbooks. He got me aside and said they were going to their vendors to find ways to cut costs.

Initially I had no idea how to do that and honestly told him so, but he kindly replied, 'I know you don't know *now* how you're going to do it, and we're certainly not asking you to lose money, but see what you can come up with.'

It took a month or so to come up with the first 10 bad ideas, but it seemed that there was merit to 2 of them. They were clarified at meetings with managers there and through more fact finding at the plant, and one just might work if we could find a way to report timely information to the managers at the company. This was modified a few times and ended up saving them over \$180,000/year as outlined in Method #9. We continued this approach with other kinds of work we later got from them.

## 11. Up your response and customer retention rates

### Adjust the Content

With direct mail, the top 4 factors for response rates seem to be:

- Price – especially if your product appears to be a commodity
- Headline has to be a benefit, not a feature (sizzling steak, not corn fed beef)
- Ask and answer an interesting question, but don't get them in a headlock by repeating your company's name
- Humor

'Announcements,' or it being based on cutesy graphics, are listed as the 2 greatest failure methods.

Poll your customers. Ask them to help you make your business even better - ask them if they will tell you reasons why they use you. The answers can be surprising!

Sometimes it's because you're the only one with estimates within 24 hours, and sometimes it's because you seem to be able to walk on water. These answers should be considered when you're working on presenting your benefits.

### Adjust the Print Method

On the mechanical side of this, what kinds of printing affect response rates, the best way is to run tests. One direct marketer was printing about 15 runs a week of 4 and 8 page brochures, averaging 50,000 run lengths, some as self-mailers, some inserted into envelopes, and they were printing these on coated text weight.

*They tested their assumptions by running different formats – 4 color on coated, 2 color on coated, 2 color on offset, and split each of these at different times for self-mailers or inserted in envelopes, and after several tests – the response rate was the same every time.*

*They were then free to lower their costs - by running on half webs, gluing spine and trimming on folders, and they then returned 40% of their advertising budget for more product tests. In this case the savings was over \$1,000,000 annually that they could reinvest.*

There's a good example in the 1<sup>st</sup> chapter, '**How is it going to be used, how long, and in what environment?**' If your customers have catalogs in front of them when ordering they may buy more than if they do not and merely phone-ordering an item they've run out of. People tend to hang onto perfect bound catalogs longer than saddle bound catalogs. *The net gain over 6 months in that detailed case is an increase in sales of \$700,000 with an additional cost of only \$15,000.*

## **12. Preprint and save money**

Pocket folders are an easy example for this. Your company probably has identity that should be on everything, but has a separate identity for certain products or divisions. You can print full color pocket folders each time, or you can approximate 2/3 of a year's requirement for all pocket folders, preprint those in full color, and then imprint cost effectively and finish each variation in one or two colors as it's time to print. You save money, and you also get greater control on consistency by running the full color portion at the same time.

For an example that lowered costs by \$49,000 per year, see #9 '**Why Overspend on Anything?**'

This can extend to product catalogs as well. There may be different products sold in different regions – like air conditioners in the south and oil burners in the north – but the general company information and full color cover are the same. You can print the common parts in one run and better amortize press start up costs, just do a plate change for the covers, print separately the northern and southern portions of the book, and bind all with the same bindery set up cost.

### 13. Combine orders and print for free

Start up cost is significant and can run as much as half of the job if the run length is low enough. To take advantage of 'additional thousands' pricing, try combining jobs on the same press sheet, or take advantage of printing similar jobs consecutively to better amortize some of these start up costs.

If you consider that a press may take (3) fulltime employees, takes up 20% of the manufacturing area of a printing plant requiring heat/ac, workers comp insurance, liability insurance, maintenance, lighting, building taxes, rent/mortgage interest, etc – as much as several hundred dollars per hour has to be applied to each of your jobs' estimates for the time it takes to set up work.

#### Costs That Occur Before Anything is Printed

- Artwork
- Proofs
- Plates
- Transportation of proofs
- Time to set up a press – everything that happens before the counter goes on:
  - Move rolls or sheets to the press
  - Set up feeder, or rolls
  - Set up inline folder for a web press
  - Hang plates
  - Register images and get up to color
- Paper that's considered 'waste' in an estimate – cost for paper that is used before the counter goes on in order to register and get up to color, set up feeders, etc.
- Time to set up bindery equipment
- Waste required before bindery equipment begins counting good product

***The total of all start up costs is a flat cost that is calculated for each job estimate.***

#### Combo Run Examples

If you can run something on the same press sheet, your only additional cost is the proof, paper, and any additional bindery.

Some companies print several single page or 4-page product sheets throughout the year. By combining these runs, even if they have different quantities, you can cut costs drastically.

If you run 4-color brochures as well as flat color brochures, consider converting all to 4-color and running these brochures in combination.

If you run 6-page product brochures, 11 x 25-1/2, you can fit (2) 8-1/2 x 11 sheets on that very press sheet, and your only additional cost will be a little more ink and proofs.

If you can keep samples of what you print, by looking back over a period time with these samples on a table, you often can see what might have been run in combination with others.

Some costs can be lowered by running work consecutively. If you're running two books with the same basic specifications, press and bindery set up costs are eliminated for the second run.

**Merely getting (3) quotes for (2) jobs will often return money to your budget:**

- How much for Job A?
- How much for Job B?
- How much if we award both jobs at the same time?

## 14. Negotiate volume discounts

It's important to describe the work as close possible. Using last year's volumes and frequencies is the easiest. It's important to include some statements in the request.

### A Few Required Statements

- Although this is last year's quantities and frequency of orders, this scenario can't be guaranteed and may increase or decrease in volume. In either case, vendor's price will remain the same for the contract period.
- If vendor's quality or service is considered in our opinion to be unacceptable, the contract may be ended without obligation.
- Be specific with specifications – select a readily available and cost efficient paper, printing method, work days for proofs, delivery in so many workdays after proof is approved, etc.
- Be specific with quantities and prices. Many ask for bids for ranges such as how much per thousand for run lengths of 20,000 to 50,000. There's a great difference in cost in that range. You're better off asking for 2 prices if the work at the full range of quantity will be printed with the same process (sheetfed, web, etc). "How much for all set up costs per job, and how much for running costs per thousand?"

Most vendors will bid aggressively in order to start a relationship with a new customer. If you have work that happens over a period of time, even for smaller volumes of work, they know they'll have a chance to prove they can be trusted and will have a greater chance to earn other work.

### Value to a Printing Company

- Cuts down on slow month losses
- Greater buying power for paper that can be a house stock that makes them more competitive to add other customers
- Ability to run jobs consecutively with little set up cost
- Sometimes enough promised sales to justify an equipment purchase that makes them more competitive in their markets