

## Cost-per-Print of four test documents

### ° **Determine Ink Cartridge Yields – the average number of prints-per-cartridge for each cartridge**

- Test files printed continuously, HP-supplied and *SpencerLab* Printer Test Suite
  - Black Text, *Dignissimas2*
  - Mixed Text & Graphics, *ErolmMsupi*
  - News Letter, *SpencerLab LC Newsletter*
  - PowerPoint Slide, *SpencerLab Boise 5a*
- Cartridges judged to be at “end-of-life” at the earlier of an ‘Ink Out’ signal on the control panel or when test prints show visible defects attributable to ink supply
  - HP BIJ 1200: ‘Ink Out’ signal provided on printer control panel
  - Canon i860: ‘Ink Out’ signal provided on printer control panel
- Testing is repeated over multiple cartridges to assure consistency

### ° **Calculate ink component cost-per-print**

- Divide each cartridge cost by the corresponding cartridge yield (average prints-per-cartridge)

### ° **Calculate other user-replaceable component pro-rata costs**

- *HP BIJ 1200 contains user-replaceable printheads; therefore, include printhead cost in total Cost-per-Print*
- *Although the Canon i860 printhead and waste ink tank can be replaced, neither has a scheduled life nor should they be replaced under typical usage; therefore, do not include in total Cost-per-Print*

### ° **Sum these component costs to obtain total Cost-per-Print for the test document**



## ° Print Modes: default

- Print in Grayscale/All Text in Black options for the Black Text document

## ° Test Document Coverage Estimates

- Ink Coverage: the sum of the parts of the total page covered by each primary – Cyan, Magenta, Yellow, Black
  - Ink coverage varies considerably with each individual printer and mode – SWOP coverage is indicated for reference
- Page Coverage: the part of the total page covered by any color (color can include multiple primaries)

SWOP Coverages	Page	cyan	magenta	yellow	black	Ink/Toner
<i>Black Text</i>	4.1%				4.1%	4.1%
<i>Mixed Text &amp; Graphics</i>	9.6%	3.3%	2.4%	0.3%	8.3%	14.3%
<i>News Letter</i>	12.3%	4.5%	4.1%	2.9%	9.8%	21.3%
<i>PowerPoint Slide</i>	14.1%	10.1%	10.5%	7.7%	3.9%	32.2%

## ° Cartridge and Printhead Prices

Component Costs		cyan	magenta	yellow	Pigment black	Dye black
<i>HP BIJ 1200</i>	<i>Ink</i>	\$31.49	\$31.18	\$31.28	\$31.40	
	<i>Printhead</i>	\$32.45	\$32.48	\$32.54	\$32.38	
<i>Canon i860</i>		\$11.64	\$11.73	\$11.79	\$13.03	\$11.61

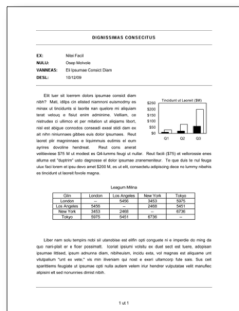
US\$ E-Commerce prices as of 8/16/04 per independent third party: Current Analysis

- Independent testing by *SpencerLab* Digital Color Laboratory was sponsored by Hewlett-Packard Company

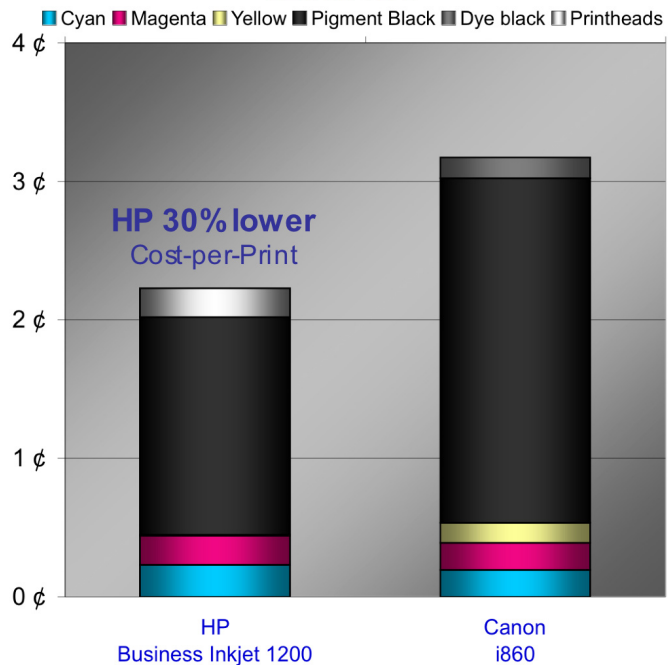


# Cost-per-Print: U.S. cents – HP Business Inkjet 1200 vs. Canon i860

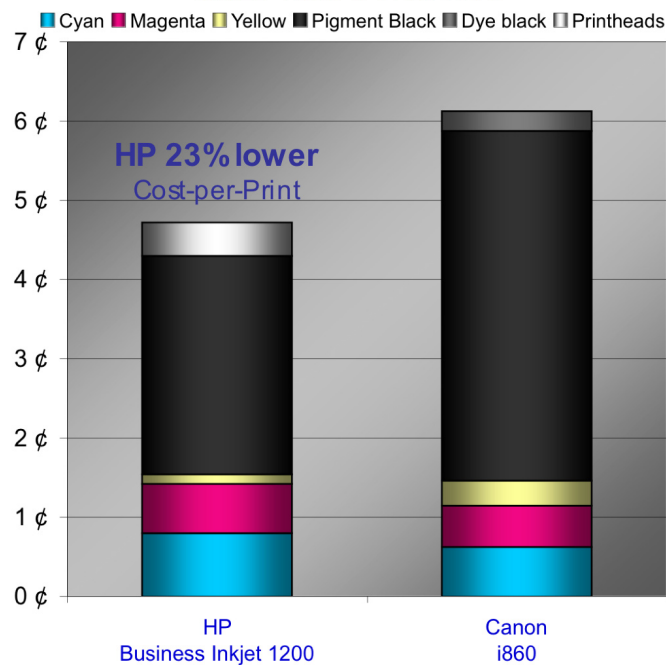
**spencerLAB**  
COST-PER-PRINT TESTED



## BLACK TEXT



## MIXED TEXT & GRAPHICS

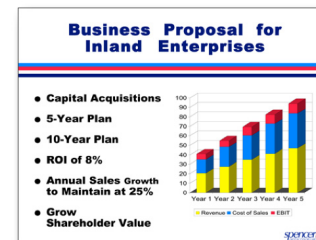


E-Commerce Pricing per Current Analysis 08/16/04. Cost-per-Print includes HP printhead costs. All testing performed using default driver settings.

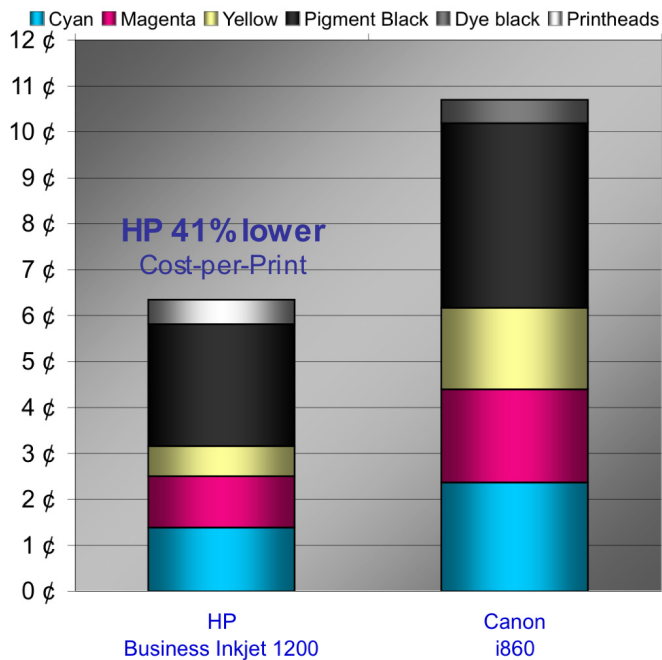


# Cost-per-Print: U.S. cents – HP Business Inkjet 1200 vs. Canon i860

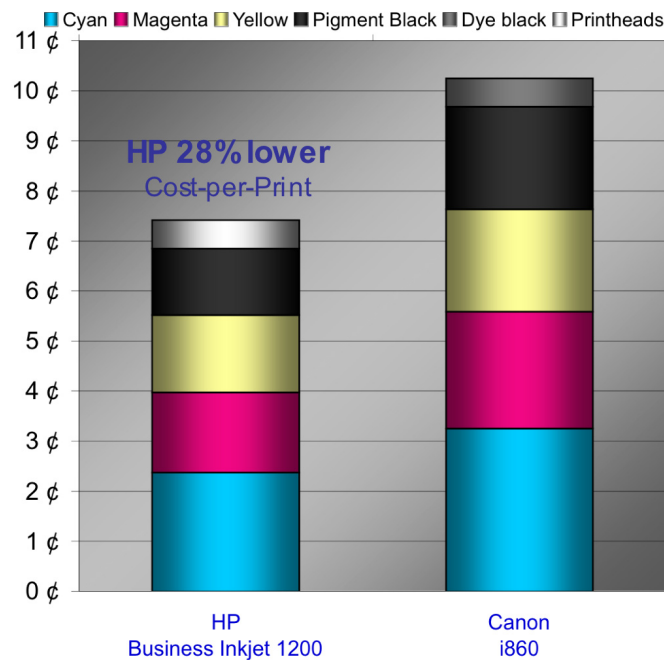
**spencerLAB**  
COST-PER-PRINT TESTED



**NEWS LETTER**



**POWERPOINT SLIDE**



E-Commerce Pricing per Current Analysis 08/16/04. Cost-per-Print includes HP printhead costs. All testing performed using default driver settings.

