

Service Provider Market Pricing Study

A Madison Advisors Report

August 2007

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EXECUTIVE SUMMARY

One of the keys to staying competitive is understanding your competition. But another key to staying competitive is understanding not only how you compete in the market but where the market is heading overall. To better understand the print service provider market's direction, Madison Advisors is conducting two Market Pricing Studies for print and mail providers in North America. This is the first of the two studies. The next will be published in 2008.

Several significant factors are affecting the current direction of the market, including:

- **Industry Consolidation:** Consolidation is creating a small group of top-tier providers, but the number of providers in regional and local markets remain robust.
- **Outsourcing and Consulting Services:** With the exception of banking, the one vertical in which there is a clear trend for small- to mi-tier banks to outsource, most vertical markets swing between outsourcing print and building print production over the course of several years.
- **Customer Portals:** As many of the customer portals are new, print service providers struggle with pricing for the services offered through a portal. Madison Advisors expects pricing for these services to migrate to a per-item or per-access fee as portals become widely adopted by clients.
- **Digital Color Print Production:** The adoption of digital color by clients has finally hit the levels suggested 5 years ago. Print service providers base the price of digital color printing primarily on the device. Average per-page prices for toner-based devices are four times higher than prices for inkjet-based devices.
- **Personalization Services:** Personalized messaging is new to many corporate clients so most print service providers consider personalized messaging to be a differentiator. Madison Advisors expects the pricing models to change and standardize within the next 2 years as messaging becomes more commonplace.

This Service Provider Market Pricing Study presents the results of Madison Advisors' extensive research and analysis related to competitive pricing of the industry's leading organizations. Market pricing information begins on page 14.

REPORT OVERVIEW

This report presents the results of the Service Provider Market Pricing Study, and Madison Advisors' key findings based on this study. It includes the following sections:

- **Section I – Industry Overview:** provides Madison Advisors' definition of a print service bureau for the purposes of this study and our segmentation of the market based on monthly page production volume.
- **Section II – Market Trends:** provides Madison Advisors' analysis of the latest developments in the print and mail outsourcing market including a discussion of industry consolidation, and a review of how user demand, evolving technology, and other market dynamics are shaping the outsourced print and mail industry.
- **Section III – Market Pricing:** provides descriptions of applications and pricing in this study, with detail on vertical/application market focus and core competency for each service provider in the study. Specifically, we present marketing pricing in six key areas:
 - Design Services
 - Digital Print
 - Insertion
 - Auditing Services
 - Postal Services
 - Electronic Presentment Services
- **Section IV – Provider Overviews:** provides brief reviews of each service provider in the study including service offerings and capabilities. The following organizations are presented in the study:

▫ Broadridge	▫ DST Output	▫ Pitney Bowes
▫ CSG Systems	▫ First Data	Management Services
▫ Docucorp/Skywire	▫ Personix	▫ RR Donnelley
- **Appendix – About Madison Advisors:** provides background information on Madison Advisors.

SECTION I – INDUSTRY OVERVIEW

In this section, Madison Advisors provides the discussion that lays the foundation for the remainder of this report. Specifically, we present:

- Madison Advisors' Print Service Provider Definition
- Madison Advisors' Market Segmentation

The remainder of this section examines each of these areas in detail.

MADISON ADVISORS' PRINT SERVICE PROVIDER DEFINITION

For this study, Madison Advisors surveyed major print service providers in the high-volume, transactional print market. Print service providers produce and distribute documents to corporate clients. Print service providers receive electronic files from clients, which the service provider prints and inserts into envelopes. Most print service providers also submit documents to the post office or a presort operation for co-mingling with other clients' mail to reduce postage costs.

The transactional market consists of large-volume batch documents, including statements and invoices, which are typically produced on a daily, weekly, or monthly production cycle. Transactional documents contain personal financial or medical data that requires secure handling and accurate delivery.

In addition to traditional print and mail services, many of the major print service providers offer additional data and document processing services. Print service providers may also offer document archiving and electronic presentment of the printed documents to complete the document lifecycle.

MADISON ADVISORS' MARKET SEGMENTATION

For the purposes of this study, Madison Advisors bases its market segmentation on print production capacity and distribution of production facilities. Print capacity determines the service provider's ability to support high volumes of transactional print production within a narrow timeframe. Federal and state regulations require many of the financial services applications, which are the largest source of transactional print volume, to be produced and mailed within five business days of month-end. Print service providers schedule production equipment to meet the cyclical production peaks imposed by these regulations.

Distributed production operations enable print service providers to route production across multiple sites. Service providers may reduce mail delivery times by producing jobs at the facility that is nearest to the mail-piece recipient. Service providers also use distributed sites for redundancy and disaster-recovery purposes.

Madison Advisors organizes the print service provider market into three segments – national, regional, and local. There are only a few large national print service providers with both a depth of production capacity and breadth of facility distribution. These organizations target large financial services companies and billers within the telecommunications, utilities, and healthcare markets. Regional service providers have a large equipment base for production, but usually focus on one or two vertical markets and offer specialized applications, such as plastic card production or lockbox operations. Local print service providers generally have the capacity and expertise to support local, smaller billers across a range of vertical markets.

The table below identifies Madison Advisors' print production and distribution metrics for determining the service provider tiers. As indicated below, the top tier contains very few service providers and the lowest tier contains many providers.

SERVICE PROVIDER TIER	PRODUCTION SITE DISTRIBUTION	MONTHLY PAGE PRODUCTION VOLUME	NUMBER OF PROVIDERS
National	Production sites in two or more geographic regions	More than 100 million	10
Regional	Production sites in one geographic region	25-100 million	50
Local	Production sites in one geographic region	Fewer than 25 million	2,500

Table 1 – Service Provider Tiers

SECTION II – MARKET TRENDS

In this section, Madison Advisors discusses the trends we see evolving in the print and mail industry. Specifically, we present discussion around:

- Industry Consolidation
- Outsourcing and Consulting Services
- Customer Portals
- Digital Color Print Production
- Personalization Services

The remainder of this section examines each of these areas in detail.

INDUSTRY CONSOLIDATION

Mergers and acquisitions within the print service provider market have changed the landscape for outsourced print production. The rapid consolidation of RR Donnelley, Moore, and Wallace between 2003 and 2004 brought together three of the largest printing organizations in the United States. As a result, corporations have fewer choices when selecting a national print service provider. These providers make up the smallest tier of service providers, as noted in Table 1 on page 7.

Many of these acquisitions extend the geographic scope or breadth of capability, enabling a print service provider to deliver a wider range of services to a larger audience. For example, Bowne's acquisition of Vestcom provided it with digital print capabilities and vertical market applications.

In the broader mid-level tier, several regional print service providers consolidated to create larger operations and take advantage of economies of scale. For example, Personix acquired several smaller operations, most recently Putnam's Boston facility, over the past few years to increase its production capabilities with a specific focus on financial services and insurance. Similarly, NCP Solutions' acquisition of DocuGlobal extended the provider's range of delivery channels for personalized communications.

The largest tier, consisting of local print service providers, grew in the overall number of companies over the past few years, based on data from the US Department of Labor. New entrants at this level include commercial printers that adopted variable data printing software and hardware to distinguish themselves from their competition.

OUTSOURCING AND CONSULTING SERVICES

Overall, Madison Advisors notes that the trend for outsourcing swings both ways. We do not believe there is a single direction for the market as a whole when it comes to outsourcing. However, some vertical markets and some application outsourcing have grown. The table below shows the percentage of organizations within each vertical market that outsource print production.

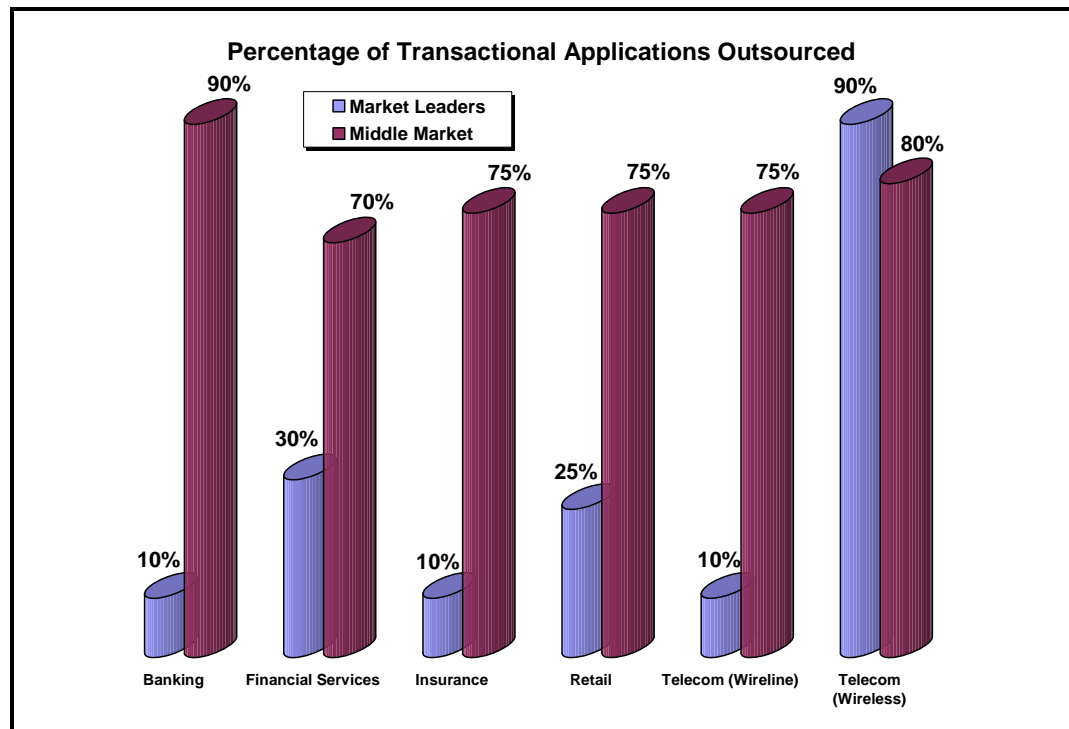


Figure 1 – Print Production Outsourcing by Vertical Market

In most vertical markets, the top- and mid-tier organizations swing between outsourcing print and building print production over the course of several years. Banking is the exception and is one vertical in which there is a clear trend toward outsourcing for small- and mid-tier institutions. Check Clearing for the 21st Century Act (Check 21) allows electronic images and check substitutes to be used in place of the original check, clearing the way for banks to outsource production instead of upgrading existing equipment bases. This trend will continue for 3 to 5 years.

Telecommunications is another vertical that is in transition. The consolidation of wireline, broadband, and cellular companies into a single entity presents major print production management challenges. Numerous mergers and acquisitions have brought together organizations with conflicting beliefs about the merits of in-house print production and distribution.

Historically, the wireline providers built out the infrastructure to support in-house print production, where as wireless and broadband providers outsource print production. In several cases, the merged organizations outsourced print production of the primary applications where previously only one of the two organizations outsourced its print production. Madison Advisors believes that most of the newly formed organizations will look for outsourced print providers that can deliver better value and support both printed and electronic communications.

In addition to outsourced print, Madison Advisors recognizes that many organizations outsource other functions related to transactional documents. Electronic notification and call center operations are two of the most common outsourced operations supported by print service providers. Since the service providers control the delivery of transactional documents, they are well suited to follow up the documents with notifications or respond to phone inquiries. The additional services also create a tighter bond between providers and clients.

Madison Advisors notes a recent trend among larger print service providers to develop or expand print-related consulting services. Working more closely with customers, provider consultants leverage their broad range of services across a wide geographic region to create tighter relationships with corporate customers. Print service provider consultants identify output-related business processes, such as customer service inquiries, that can be automated and outsourced.

Xerox Global Services (XGS) is one of the leaders in document process automation. XGS consultants utilize a Lean Six Sigma-based process to assist customers with automation. XGS examines the business process associated with document generation and builds solutions using software and hardware from both Xerox and its partners.

Standard Register formed an alliance with HP to provide customers with a single source for enterprise document production. The alliance brings together HP's Managed Print Services and Standard Register's software and print production services. Standard Register's PrintConcierge printing specialists work with clients to centrally source, manage, and distribute print production.

CUSTOMER PORTALS

Print service providers offer web-based portals that allow customers to submit and view the progress of print production from a single dashboard. Customers can also use the portals to notify the service provider of changes to jobs. Portals provide an easy communications channel between customers and service providers. Service providers host portals to maintain an on-going relationship with customers.

For service providers, customer portals provide a more reliable method of communications than voicemail or email. The portal software routes customer communications to the appropriate individual and re-routes inquiries if someone is unavailable or on vacation. Also, customer portals reduce customer service calls, and thereby reduce service costs because the customer can check a job status online.

In addition, customer portals showcase available services so the portals become selling channels for the service providers. Service providers that offer personalization or electronic presentment bundle these services into a customer portal so that customers can manage marketing messages for each job and access archived documents. Portals enable a service provider to integrate both further upstream and downstream in the business processes around a document.

Print service providers with custom-built portal solutions operating on mainframes are replacing these systems with solutions built in Java and .NET environments. The newer environments offer more flexible programming architectures and integrate more easily with new web-based applications than mainframe systems. Oftentimes, service providers brand sections of the portal for specific clients, which allow these clients to link the portal into intranet applications. A customer service representative, for example, can access an archive of documents hosted by a print service provider.

Print service providers may also configure package solutions from software vendors such as Press-sense and Printable. Packaged software solutions support multiple levels of branding and segregate both data and documents based on user- and group-level security.

As many of the customer portals are new, print service providers struggle with pricing for the services offered through a portal. Madison Advisors found that most providers allow clients free access to basic portal services, such viewing current job status and historical production reporting, but charge fees for document retrieval, mail piece tracking, image submission, and last-minute changes to job configurations. Although no standard pricing model exists, Madison Advisors expects pricing for these services to migrate to a per-item or per-access fee as portals become widely adopted by clients.

DIGITAL COLOR PRINT PRODUCTION

InfoTrends market study, *The Evolving U.S. Digital Color on Demand Printing Opportunity*, reveals that the adoption of digital color by clients has finally hit the levels suggested by the market 5 years ago. As the speed of digital color production presses increase and the per-page costs decrease, both commercial printers and traditional print service providers have successfully tested digital color presses and are now running production. Savvy service providers offer print production capabilities as well as related data services to capture the most revenue from digital color pages.

National service bureaus primarily use Kodak Versamark systems to deliver high-volume, digital color print production. New inkjet solutions appeared in the last year but have yet to gain market share in the United States. Commercial printers and some service providers favor toner-based systems from vendors such as HP-Indigo, Xeikon, Kodak NexPress, and Xerox due to better image quality and better color depth. However, these systems have a higher cost per page than the inkjet systems, making them cost-prohibitive for very high volume applications.

Madison Advisors finds that financial services vertical markets lead the way in adoption of digital color application. Financial services organizations use digital color as part of a broad customer retention strategy by switching marketing documents from offset to digital print and adding color to transactional documents. Financial services firms as well as the billing or financial arm of the other verticals, such as manufacturing, add personalization and color to printed marketing communications.

These color documents are then added to enrollment kits and other literature packages to notify customers of additional service offerings from the same firm or financial services partners. Print service providers supply the digital color production as well as the associated personalization and fulfillment services required to complete these applications.

Although volume and coverage factors still apply, print service providers base the price of digital color printing primarily on the device. Average per-page prices for toner-based devices are four times higher than prices for inkjet-based devices. In general, clients prefer the lower-cost inkjet output for high-volume transactional and trans-promotional documents, whereas clients prefer the higher-cost, toner-based output for variable-data printing of promotional/marketing literature.

Overall, color prices are declining as offerings become more standard and technology costs are reduced. In some market applications, multiple market prices for full color all fall within 10% of each other, indicating that the rich margins associated with color printing may be lost.

PERSONALIZATION SERVICES

Personalized messaging services include the capabilities to accept and embed both text and graphics provided by the client within the document design. The client defines business rules that determine which text and/or graphics are used in each document. Some service providers expose an online interface that clients can use to manage text, graphics, and business rules.

Print service providers usually expose personalization services through a customer portal. Personalized messaging is new to many corporate clients so most print service providers consider personalized messaging to be a differentiator. To be successful, providers must have a robust document composition solution, which provides an interface for personalized messaging, or providers must develop elaborate business logic and embed tracking codes in the customer data stream.

Two of the print service providers included in this study utilize custom-developed applications for personalized messaging. As first-generation applications, the software provides limited functionality when compared to commercial products, such as GMC PrintNet Interactive. The custom-developed software lacks support for graphics and offers limited segmentation options.

Several of the providers surveyed as part of Madison Advisors' Best Practices Analysis use personalized messaging capabilities to attract clients and do not yet charge for the service. One provider charges \$0.005 per message placed on each image. The others do not charge for messages, but charges graphic design fees for each graphic added to the system. Madison Advisors expects the pricing models to change and standardize within the next 2 years as messaging becomes more commonplace.

SECTION III – MARKET PRICING

In this section, Madison Advisors reviews the market and competitive pricing across six major categories of service offered by print service providers, presented in order of the document lifecycle:

- Design Services
- Digital Print
- Insertion
- Auditing Services
- Postal Services
- Electronic Presentment Services

For each of the major categories above, Madison Advisors defines the services within the category; presents competitive pricing in the form of low, average, and high pricing; and provides our analysis on the competitive pricing.

DESIGN SERVICES

Design services encompass the various services required to prepare client applications for production. Most service providers assign a project management team to work with the client to migrate applications into the provider's operational environment. Most providers offer project management free of charge. Creative design and programming support the migration but are billed hourly. Finally, most providers conduct application testing as part of the migration project.

The table below provides descriptions for the services discussed in this section.

SERVICE	DESCRIPTION
Project Management	Managing document development and implementation projects
Creative Design Services	Designing graphic arts-related documents and digital images
Programming	Developing data-driven documents using business rules, scripting, and data processing
Testing Services	Generating test files and producing test output as part of the startup or application development process
Quality Checks	Conducting quality checks on documents and mail pieces during production

Table 2 – Definitions for Design Services

Whereas every print service provider identified specific hourly rates for creative design services and programming, only a few providers charge for project management and quality checks. The figure on the following page presents the low, average, and high pricing for the key areas of design services, as defined above. For services for which only one data point was available, the pricing is provided as the average.

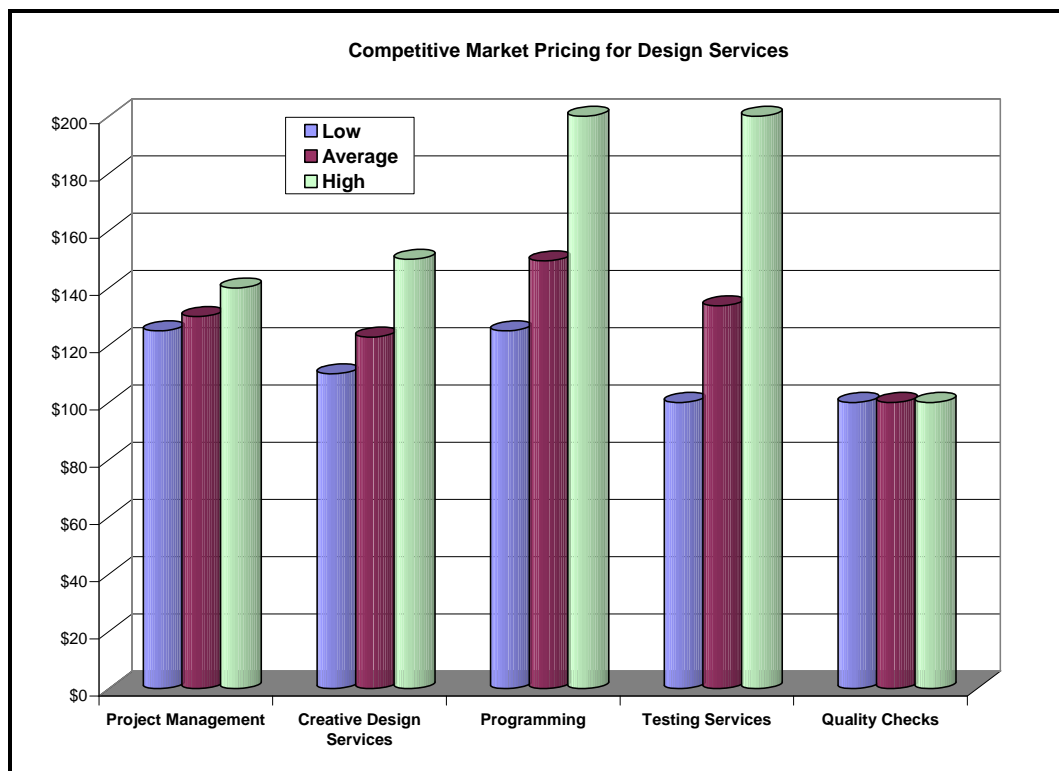


Figure 2 – Competitive Market Pricing for Design Services

When responding to RFPs, each print service provider describes a full range of project management services, including support from a designated project manager, an evaluation of each application, and non-programming conversion services. Most include project management services free with the contract, but a few providers include a fixed number of hours in the contract and charge hourly after the fixed number is exceeded. Large corporate clients, especially those transferring the print production from an internal print shop, expect assistance with migrating and testing the applications in the new outsourced environment.

Some print service providers include testing services and generate proofs for existing applications as part of the contract. Charges for testing new applications are applied to programming costs. Only a few print service providers support online test proofs, even though many corporate clients would like to use online processes to streamline the workflow and reduce the proofing cycle time. One provider delivers the online proof through the customer service application at a cost of \$0.02 per image. Other providers indicated plans to offer online proofs in the future.

DIGITAL PRINT

For the purposes of this study, digital print includes the production of different transactional documents from client-supplied data files. Madison Advisors gathered services pricing for five applications across four vertical markets – financial services, utilities, telecommunications, and insurance.

The table below provides details on each of the sample applications used during the data-collection process. Madison Advisors collected data from each print service provider using the same sample application descriptions.

APPLICATION	DESCRIPTION
Financial Services Statements	<ul style="list-style-type: none"> Image: Duplex, landscape, 8 1/2 x 11, monochrome Package: 10 images (5 sheets), landscape-fold Volume: 1 million statements per year (10 million images per year) SLA: 5 days
Residential Utility Bills	<ul style="list-style-type: none"> Image: Duplex, portrait, 8 1/2 x 11, monochrome Package: 2 images (1 sheet), tri-fold Volume: 15,000 - 20,000 bills per day (5 million images per year) SLA: 1 day
Insurance Policies	<ul style="list-style-type: none"> Image: Duplex, portrait, 8 1/2 x 11, monochrome Package: 20-40 images (10-20 sheets; average 16 sheets), half-fold and/or flat Volume: 5,000 - 10,000 policies per day (60 million images per year) SLA: 1 day
Letters	<ul style="list-style-type: none"> Image: Simplex, portrait, 8 1/2 x 11, monochrome Package: 1 image (1 sheet), tri-fold Volume: 1,200 - 1,500 letters per day (500,000 images per year) SLA: 1 day
Checks (MICR)	<ul style="list-style-type: none"> Image: Simplex, portrait, 8 1/2 x 11, MICR Package: 1 image (1 sheet), tri-fold Volume: 1,200 - 1,500 checks per day (500,000 images per year) SLA: 1 day

Table 3 – Sample Transactional Applications: Digital Print

Digital print pricing is the most dynamic section of this report. Madison Advisors' research indicates that while the pricing models for other services continue to mature, most print service providers use one of two digital print pricing models. Separate pricing for the first page and additional pages is used by some national print service providers, while smaller providers use a per-page pricing model. Participants provided per-page pricing for this study.

The figures on the following pages present the low, average, and high pricing for the key areas of digital print. The pricing reflects the attributes of the different applications defined above, so some services do not apply to all applications. For example, policies do not typically contain digital color, so none of the print service providers surveyed provided that data point.

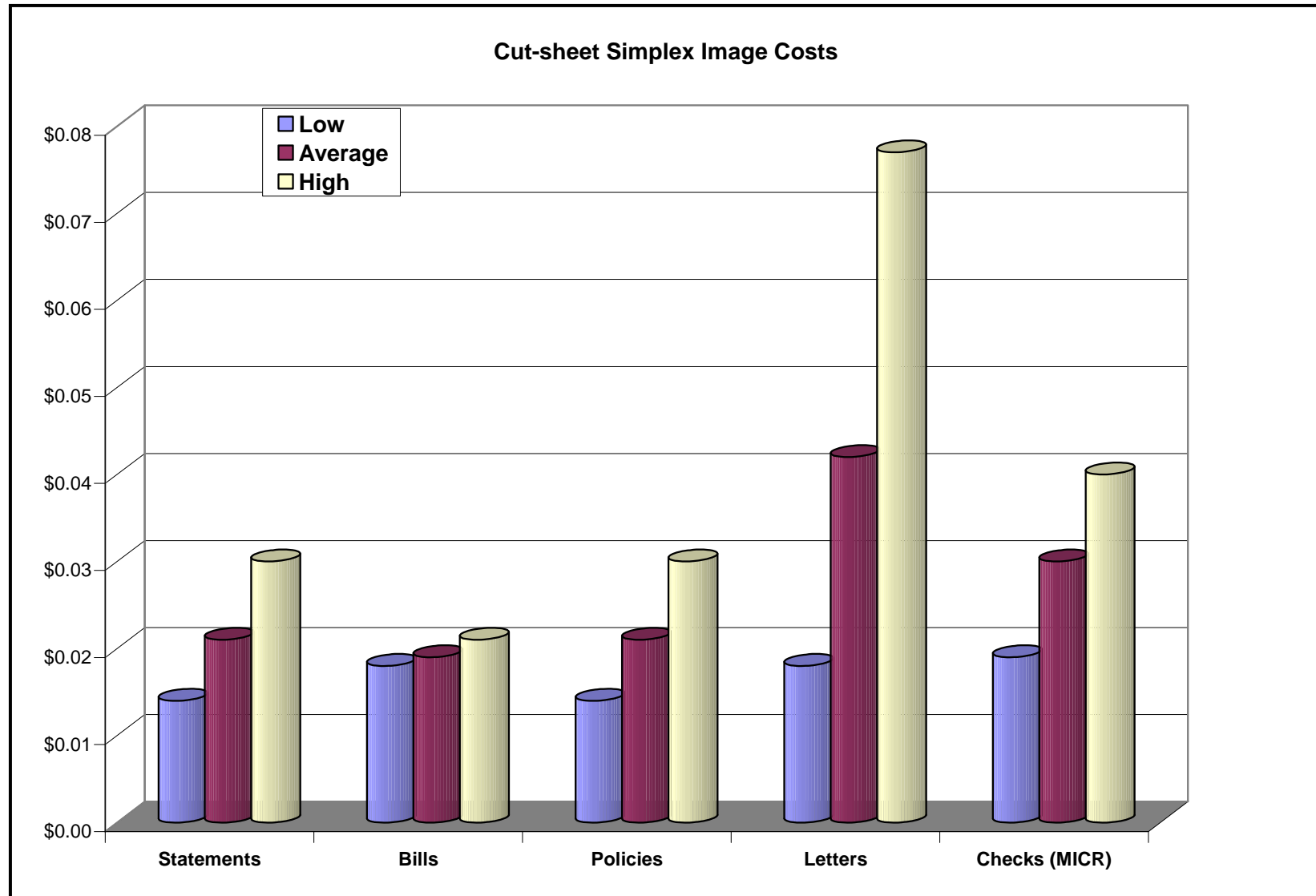


Figure 3 – Cut-sheet Simplex Image Costs

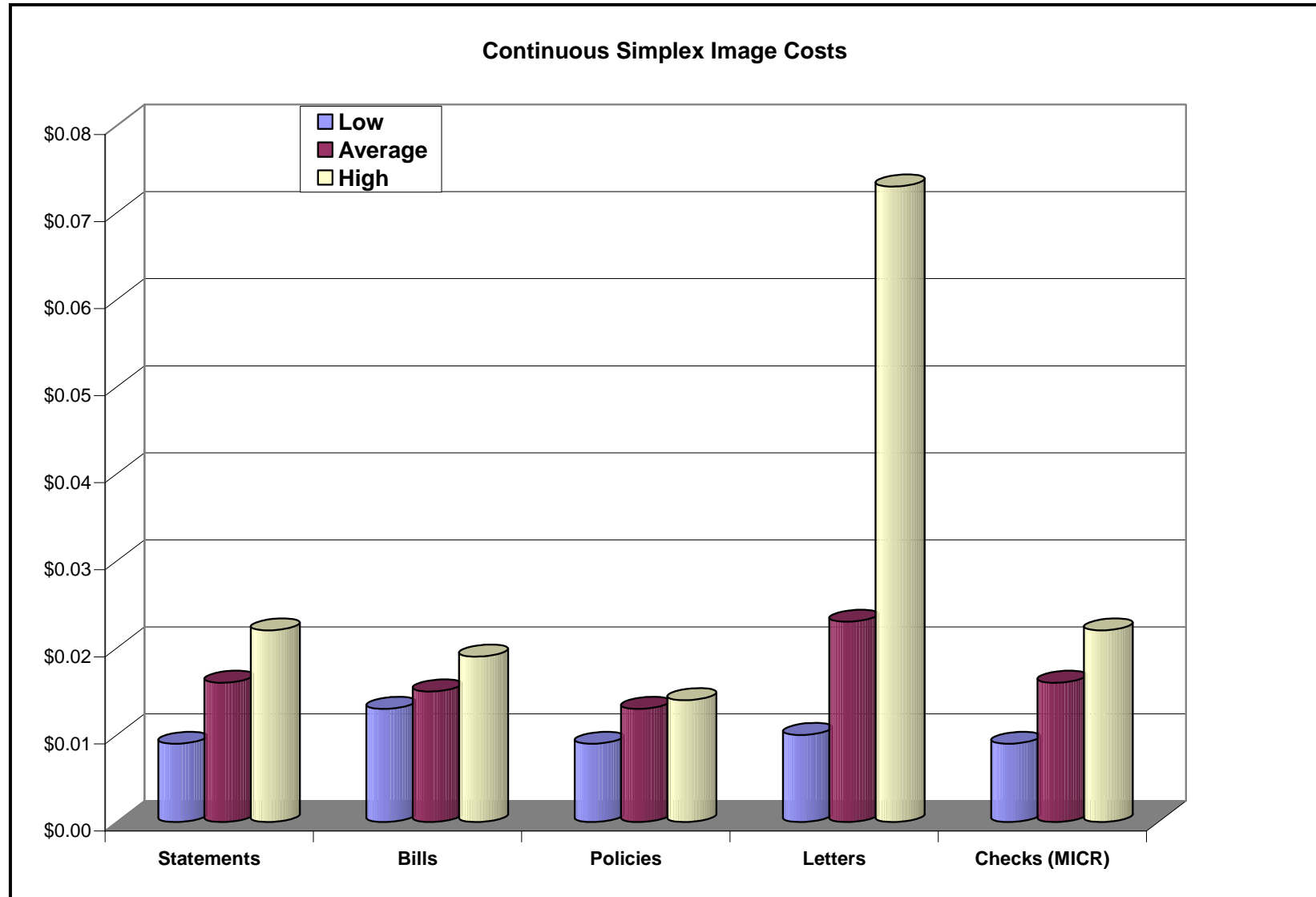


Figure 4 – Continuous Simplex Image Costs

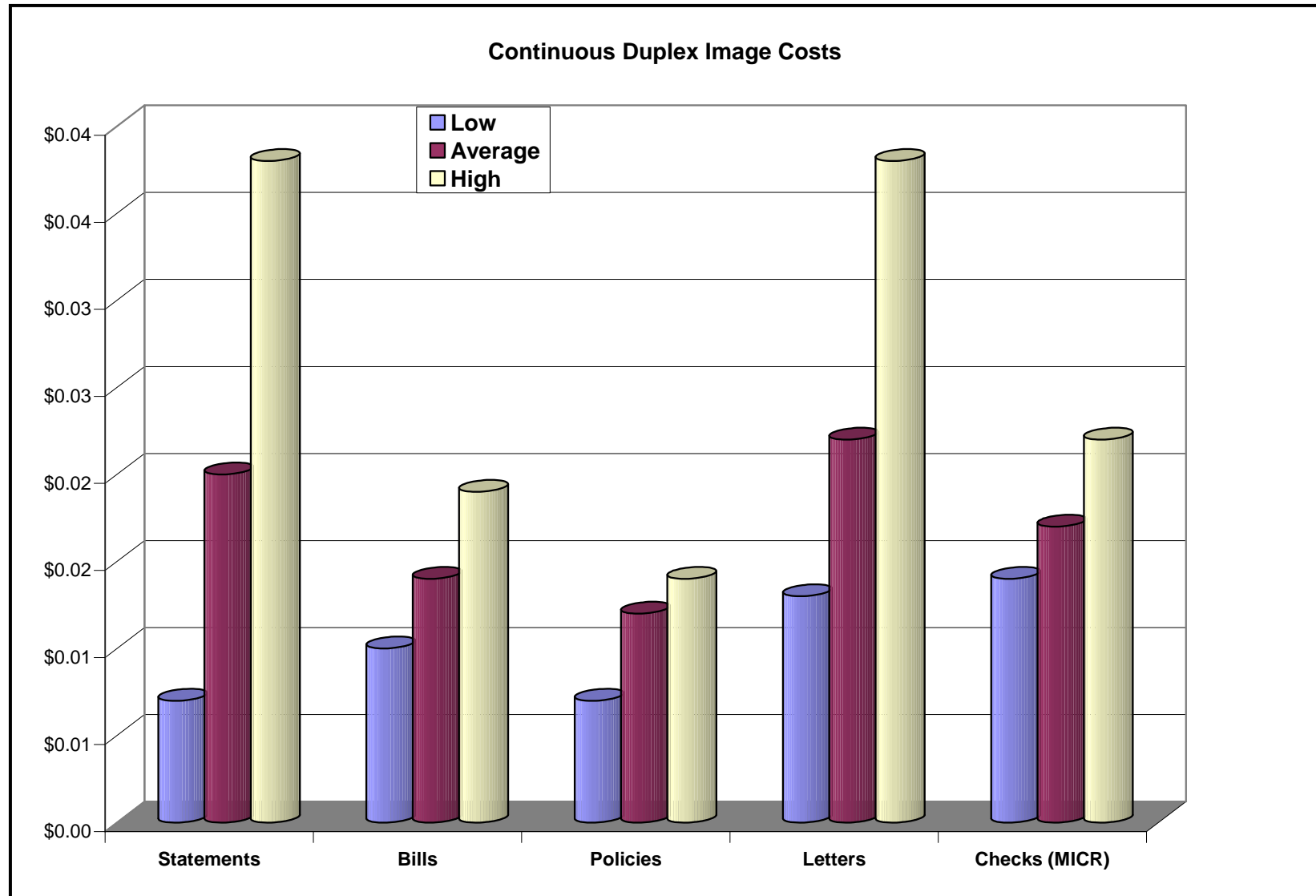


Figure 5 – Continuous Duplex Image Costs

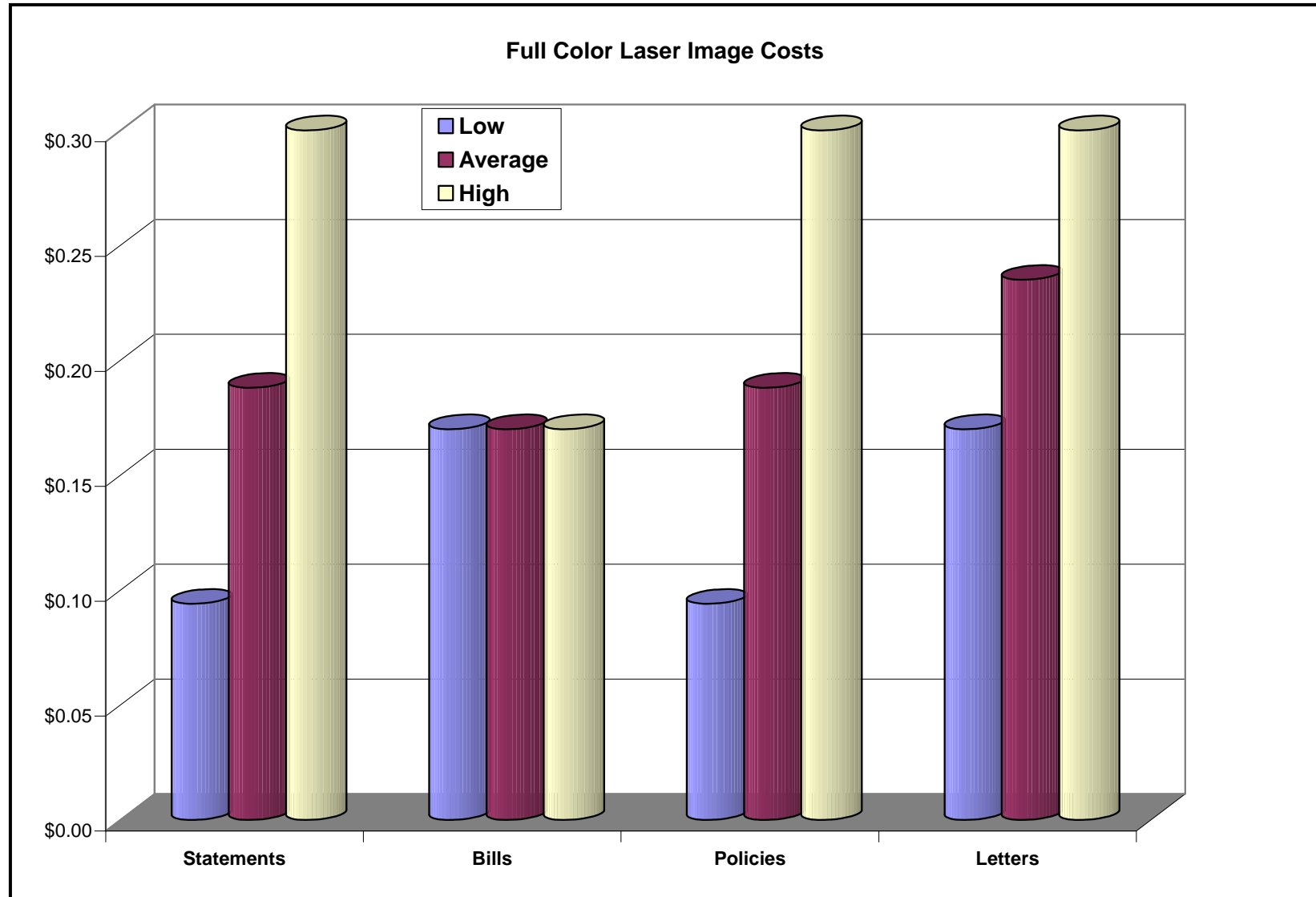


Figure 6 – Full Color Laser Image Costs

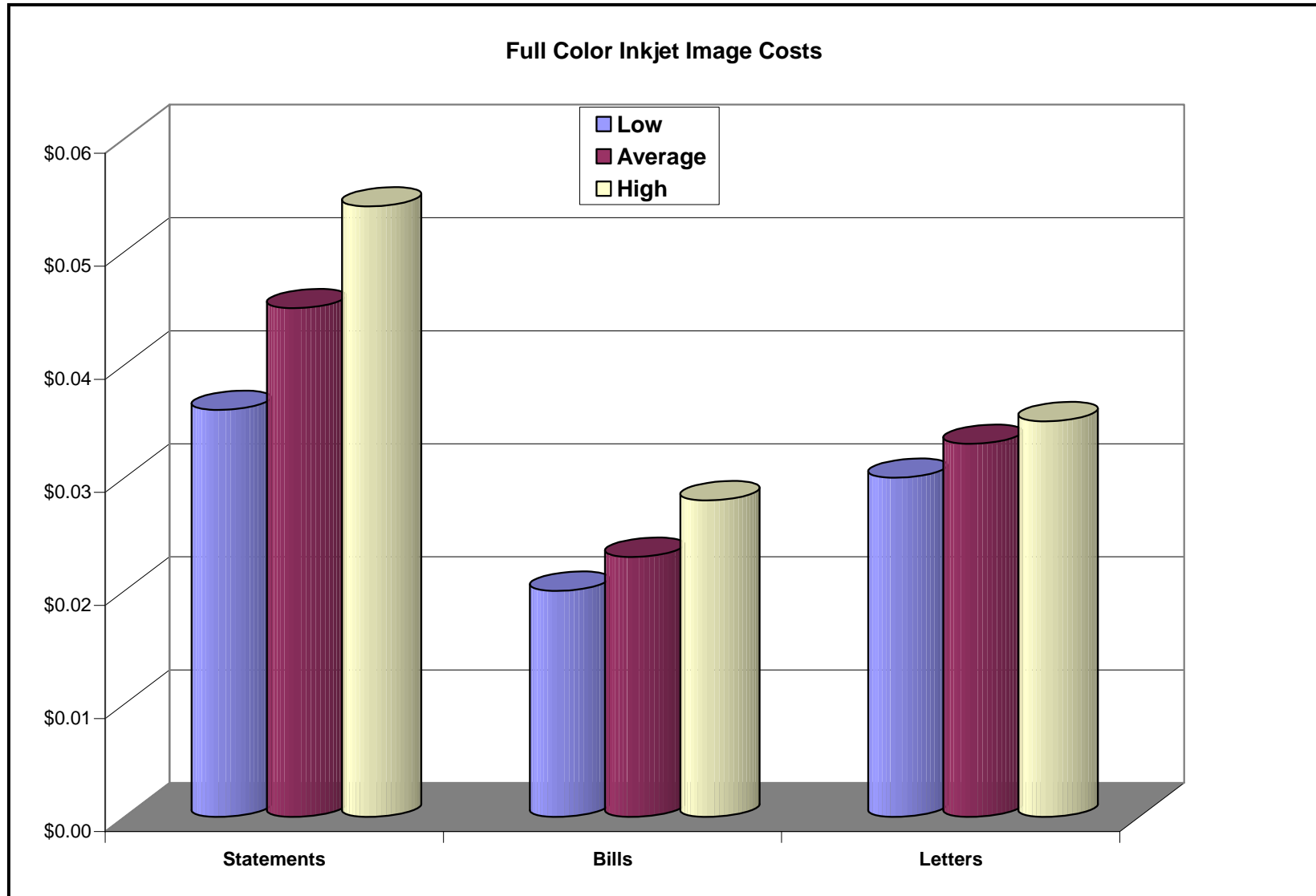


Figure 7 – Full Color Inkjet Image Costs

No one print service provider offers the lowest prices for every category. Providers offer a significant range of prices depending on both volume and vertical markets with an emphasis on specific verticals. For example, CSG Systems offers monochrome and color production of bills but does not compete for financial statements or insurance policies.

The variance in prices across verticals for continuous duplex images reflects excess print capacity and competitive pressures. All the providers offer continuous duplex printing across one or more vertical markets, yet the financial services application (statements) has the greatest standard deviation. Madison Advisors sees the most print service provider competition in this vertical and expects digital print prices to be driven down over the next couple years. Additional services, such as color printing and personalization services, along with supplemental benefits, such as a robust client interface, will command higher prices for the next 2 to 3 years, and then prices will decrease.

Only some print service providers offer services to the other vertical markets due to a lack of vertical expertise or small client base. The utilities and insurance markets exert greater price pressure than the financial services vertical due to more restrictive cost structures. Madison Advisors believes that the digital print prices will remain steady in utilities and insurance but new opportunities will emerge as these markets adopt digital color printing and electronic delivery services.

Madison Advisors did not receive pricing for highlight color documents because few of the national print service providers offer highlight color printing. Madison Advisors encounters highlight color solutions in use by smaller providers and by providers with an equipment base that is more than 8 years old. Due to the emergence of low-cost, high-speed, full-color digital printers, Madison Advisors expects the number of highlight color pages to drop as providers replace older equipment with new digital color printers.

INSERTION

For the purposes of this study, insertion includes the insertion of different transactional documents, enclosures, and business reply envelopes into mailing envelopes. Madison Advisors gathered services pricing for five applications across four vertical markets – financial services, utilities, telecommunications, and insurance.

The table below provides details on each of the sample applications used during the data-collection process. Madison Advisors collected data from each print service provider using the same sample application descriptions.

APPLICATION	DESCRIPTION
Financial Services Statements	<ul style="list-style-type: none"> Image: Duplex, landscape, 8 1/2 x 11, monochrome Package: 10 images (5 sheets), landscape fold Volume: 1,000,000 statements per year (10 million images per year) SLA: 5 days
Residential Utility Bills	<ul style="list-style-type: none"> Image: Duplex, portrait, 8 1/2 x 11, monochrome Package: 2 images (1 sheet), half-fold Volume: 15,000 - 20,000 bills per day (5 million images per year) SLA: 1 day
Insurance Policies	<ul style="list-style-type: none"> Image: Duplex, portrait, 8 1/2 x 11, monochrome Package: 20-40 images (10-20 sheets; average 16 sheets), half-fold and/or flat Volume: 5,000 - 10,000 policies per day (60 million images per year) SLA: 1 day
Letters	<ul style="list-style-type: none"> Image: Simplex, portrait, 8 1/2 x 11, monochrome Package: 1 image (1 sheet), tri-fold Volume: 1,200 - 1,500 letters per day (500,000 images per year) SLA: 1 day
Checks	<ul style="list-style-type: none"> Image: Simplex, portrait, 8 1/2 x 11, MICR Package: 1 image (1 sheet), tri-fold Volume: 1,200 - 1,500 checks per day (500,000 images per year) SLA: 1 day

Table 4 – Sample Transactional Applications: Insertion

The figure below presents the low, average, and high pricing for the key areas of insertion. The pricing reflects the attributes of the different applications defined above; some services do not apply to all applications. For example, print service providers insert each application in portrait or landscape, but not both orientations. In addition, Madison Advisors found very little price difference between applications, so we consolidated the data into All Documents.

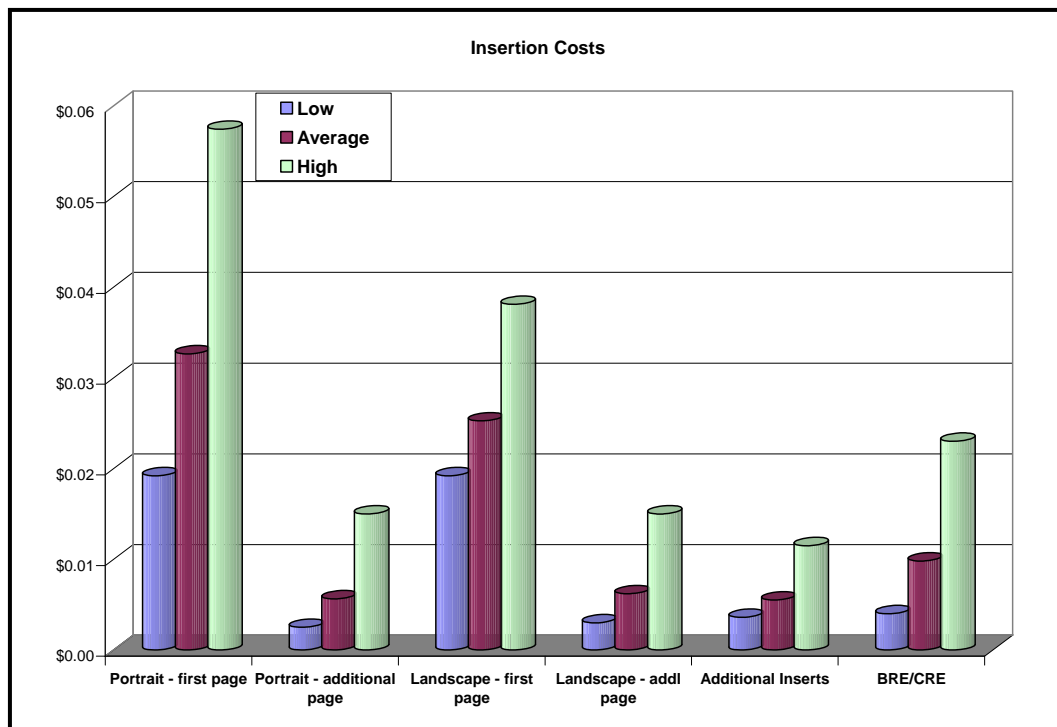


Figure 8 – Competitive Market Pricing for Insertion

As indicated in Figure 8, the insertion pricing does not vary significantly between applications. Only one of the print service providers indicates a price difference between the insertions of different applications. The difference applies only to the portrait insertion price and does not affect additional inserts or handling services. With one exception, all the print service providers offer the same insertion pricing model. The common model is one price for the first page in the mail piece and a lower price for each additional page. This applies to portrait and landscape insertion; however, the providers charge per envelope for flat insertion.

One provider charges per envelope for portrait (\$0.08), landscape (\$0.08), and flat insertion (\$0.20). Madison Advisors did not average the fixed rate charges for portrait and landscape insertion into Figure 8.

As indicated in Figure 9, below, the insertion pricing for flats varies widely. Several service providers noted that they provide clients with more granular flats pricing based on equipment capability. The pricing shown reflects mechanical insertion. However, many service providers also offer manual flats insertion for documents greater than 100 pages and box insertion for very large documents.

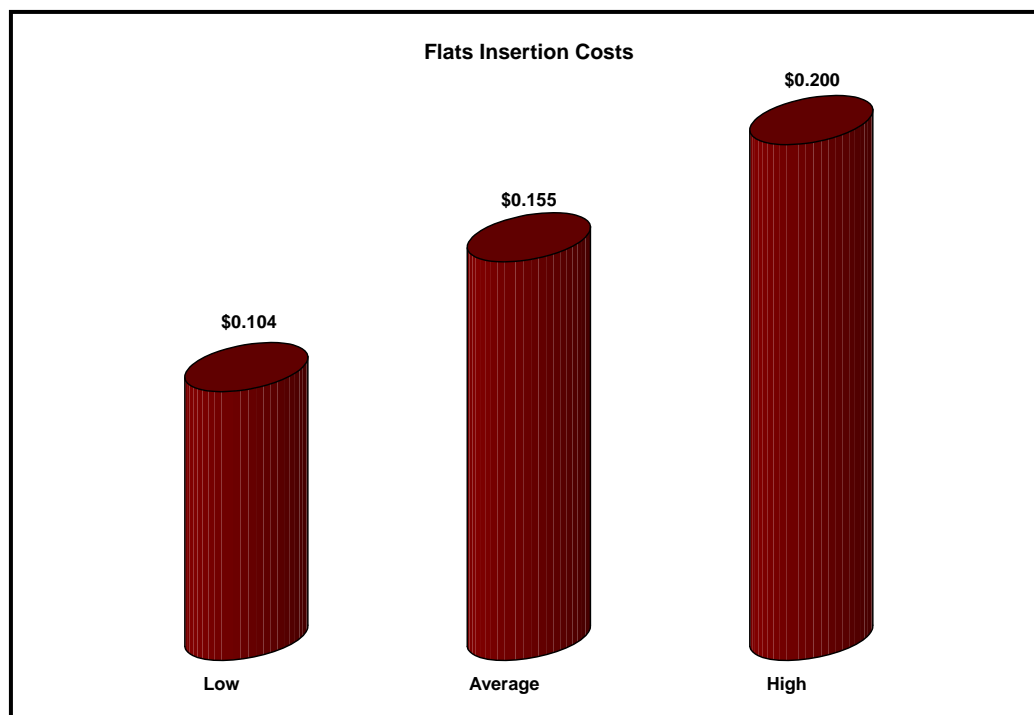


Figure 9 – Competitive Market Pricing for Flats Insertion

Figure 10, below, presents the low, average, and high pricing for special handling costs related to insertion.

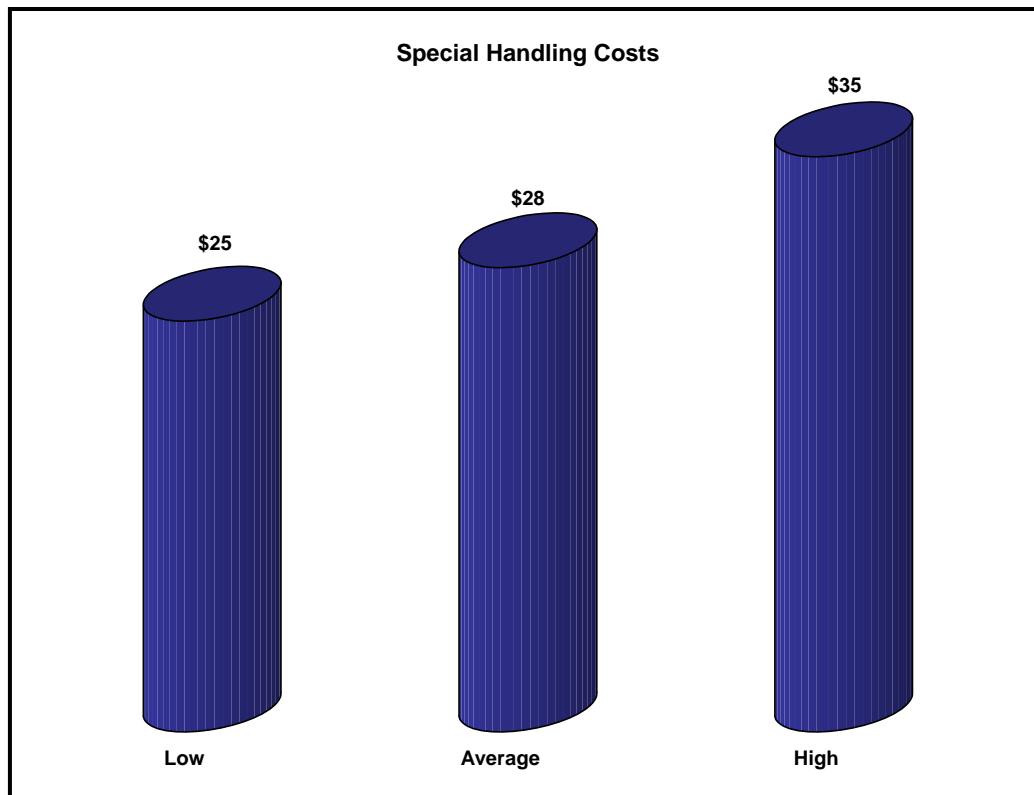


Figure 10 – Competitive Market Pricing for Special Handling Costs

Madison Advisors defines special handling as exception mail processes that require manual labor, such as sorting or packaging mail pieces in express envelopes or other non-USPS labeling. One provider assesses a special handling fee for the packaging of large flats into boxes. The pricing provided in Figure 10 is per hour.

AUDITING SERVICES

Auditing services include actions performed on individual documents or mail pieces during the production process. Clients request these actions on behalf of customers to improve customer service. In some cases, these manual activities involve removing an item from the normal production process and treating it as an exception. Auditing service offerings also include client interfaces for auditing the production process and viewing production reports.

The table below provides descriptions for the services discussed in this section.

SERVICE	DESCRIPTION
Hold Item – Pre-print	Processing a customer request to not print an item included in the data stream
Pull Item – Post-print	Processing a customer request to not mail an item that has been printed
Fax Item	Processing a request to fax an item to a recipient
Online Monitoring of Production	Monitoring the real-time production process through an online customer interface
Online Production Reporting	Viewing historical production data and/or creating online production reports through an online interface

Table 5 – Definitions for Auditing Services

At least one print service provider includes each of these services as part of a standard contract. For the services in which a dollar amount was quoted by any vendor, Madison Advisors did not list Included as the lowest price, so that the actual lowest price is displayed.

The table below presents the low, average, and high pricing for the key areas of auditing services, as defined above.

SERVICE	VALUE	PRICING
Hold Item – Pre-print	Low	\$0.25
	Average	\$1.25
	High	\$2.25
Pull Item – Post-print	Low	\$2.00
	Average	\$13.56
	High	\$25.00
Fax Item	Low	\$0.10
	Average	\$0.12
	High	\$0.15
Online Monitoring of Production	Low	Included
	Average	Included
	High	Included
Online Production Reporting	Low	Included
	Average	Included
	High	Included

Table 6 – Competitive Market Pricing for Auditing Services

As noted on the previous page, at least one print service provider includes each of the auditing services as part of a standard contract. In addition, the prices for these services ranged from \$0.10 per piece to \$25.00 per piece. Based on Madison Advisors' knowledge of the print service providers' production operations, we believe that the pricing for the item-based services (Hold Item, Pull Item, and Fax Item) correlates inversely to the level of automation that can be provided. Providers with the highest amount of automation discourage clients from triggering manual processes by placing a high price on these services.

Whereas online production monitoring occurs in real time, production reporting uses historical data. Several print service providers allow clients to view real-time production online, through a proprietary application or a customer portal. The various solutions enable clients to view the status of a job and submit requests to hold or pull items from the job during the production process. One of providers developed its production monitoring solution in-house, while the other built their solutions using Böwe Bell+Howell JETS technology. The providers that do offer production reporting utilize a standard set of reports and will develop additional reports for a fee.

POSTAL SERVICES

Postal services include various activities related to address quality and pre-sorting for postal discounts. Postal services also include the addition of postal tracking barcodes for piece-level tracking through the USPS mail stream.

The table below provides descriptions for the services discussed in this section.

SERVICE	DESCRIPTION
Mail Preparation	Conducting electronic presort processing on customer data file
ZIP Code Assignment	Performing CASS processing with and without delivery point validation (DPV) on customer data file
Move Update	Conducting NCOALink processing on customer data file or any other services included as part of the Move Update charge
Delivery Tracking	Generating PLANET code bar codes

Table 7 – Definitions for Postal Services

The figure below presents the low, average, and high pricing for the key areas of postal services, as defined above.

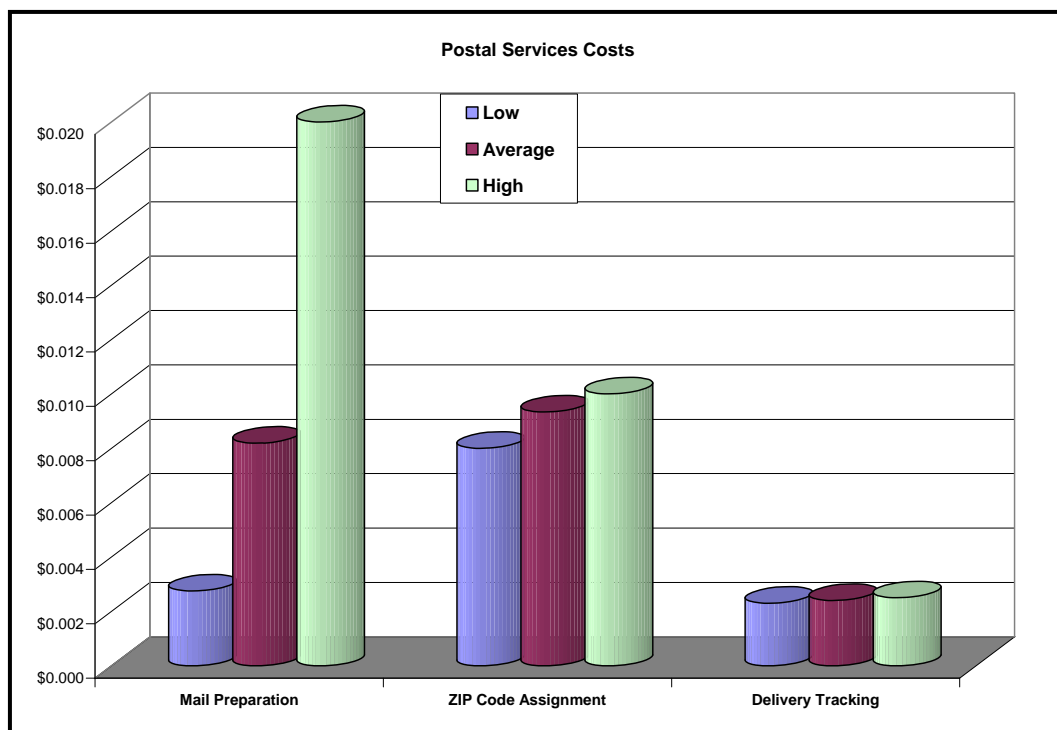


Figure 11 – Competitive Market Pricing for Postal Services

There is no common model for postal services. The mail preparation fee varies quite a bit between providers, since providers define the included services differently. However, one provider indicated that the fee is volume-sensitive and ranges from \$0.003 to \$0.007 per envelope. The provider also indicated that the fee covers manifest mailing, but if the mail pieces are sent to a consolidator, the mail preparation fee does not apply.

The Move Update and Delivery Tracking fees vary significantly between providers, but no clear explanation was given for the deviation. Madison Advisors believes that providers include different processes within the Move Update fee and that further granulation of this service is required.

Figure 12, below, presents the low, medium, and high pricing for move update service costs.

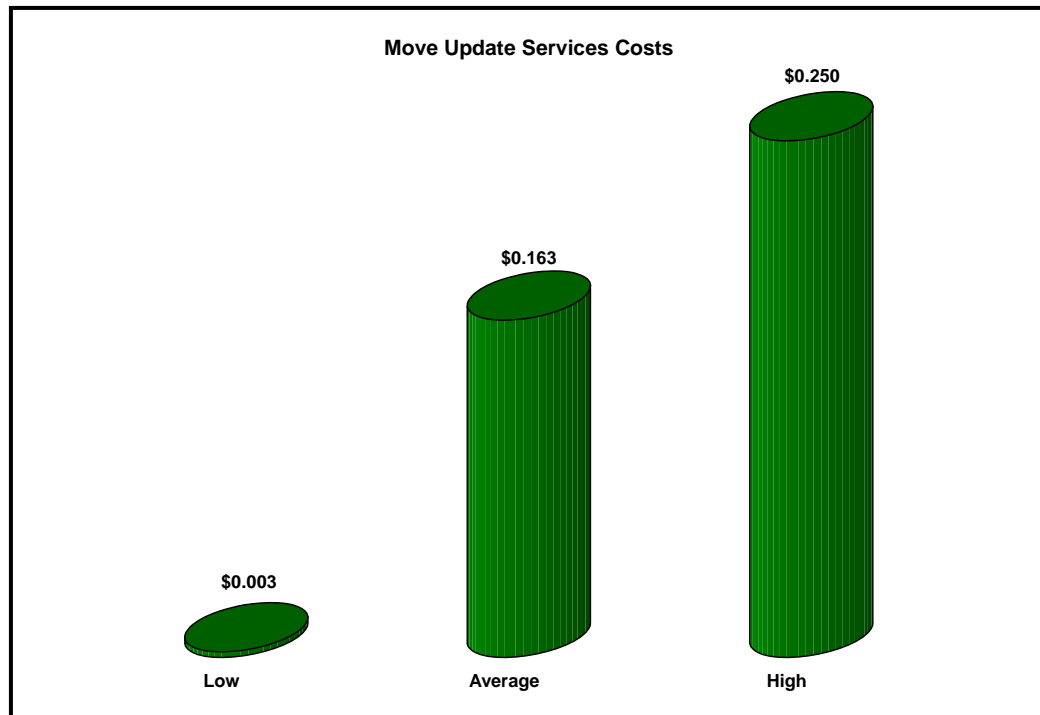


Figure 12 – Competitive Market Pricing for Move/Update Services

ELECTRONIC PRESENTMENT SERVICES

Electronic presentment includes activities related to generating, archiving, and enabling client or customer access to electronic images of printed documents. Service bureaus typically bundle electronic presentment services with print services and may incorporate reporting or client portal tools.

The table below provides descriptions for the services discussed in this section.

SERVICE	DESCRIPTION
Implementation	Implementing base electronic presentment solution with five document types
Hosting	Hosting an electronic document archive solution
Storage Duration	Default number of months that documents are kept online
Programming	Developing data-driven documents using business rules, scripting, and data processing
Imaging – High Volume	Generating and enabling access to electronic images at average volumes above 50,000 per month
Imaging – Low Volume	Generating and enabling access to electronic images at average volumes below 50,000 per month
Indexing/Transformation	Generating document indices or transforming print stream formats

Table 8 – Definitions for Electronic Presentment Services

The table below presents the low, average, and high pricing for the key areas of electronic presentment services, as defined above.

SERVICE	VALUE	PRICING
Implementation	Low	\$10,000.00
	Average	\$23,416.67
	High	\$35,250.00
Hosting	Low	\$3,500.00
	Average	\$7,000.00
	High	\$10,000.00
Storage Duration	Low	12 months
	Average	48 months
	High	84 months
Programming	Low	\$125.00
	Average	\$166.00
	High	\$200.00
Imaging – High Volume	Low	\$0.0072
	Average	\$0.0197
	High	\$0.0315
Imaging – Low Volume	Low	\$0.0072
	Average	\$0.0347
	High	\$0.0500
Indexing/Transformation	Low	
	Average	\$0.0045
	High	

Table 9 – Competitive Market Pricing for Electronic Presentment Services

Most print service providers use an implementation and monthly fee model. The implementation covers the initial system setup and the development of one or more documents. In some cases, this fee is calculated using a set number of programming/development hours. One provider does not charge an implementation fee, but the solution must be part of a print/mail proposal.

Madison Advisors found that pricing for the initial setup fee varied widely depending on the size of the client and the volume of print associated with the proposal. Although most providers do price electronic presentment services as a separate offering, these services come bundled with a print/mail proposal. These solutions may also include discounted programming services and set up of additional documents at a lower rate.

Imaging fees include both the creation of the electronic format, usually PDF, and placement of the electronic file on the system. Most providers do not break out the charges into separate components, but quote one charge for both. Imaging fees typically go down as monthly volume increases. However, in one case, the first 10,000 images are free. The standard storage time ranges from 1 to 7 years. Print service providers targeting the financial services market offer a 7-year retention policy.

Only one provider specifies a separate fee for running indices or transforms on a document print stream. Other providers include some transformation and document indexing as part of the initial implementation. None place any limits on the document indexing during the implementation. Service providers fulfill requests to define additional indices on existing documents as programming services.

SECTION IV – PROVIDER OVERVIEWS

In this section, Madison Advisors provides brief reviews of each service provider in the study, including service offerings and capabilities.

The following vendors are presented in this section in alphabetical order:

- Broadridge
- CSG Systems
- Docucorp/Skywire
- DST Output
- First Data
- Personix
- Pitney Bowes Management Services
- RRD/Moore-Wallace

The remainder of this section reviews each of these vendors in detail.

BROADRIDGE

Broadridge, with \$7.8 billion in revenues and approximately 550,000 clients, is one of the largest independent computing services firms in the world. Previously a division of ADP, Broadridge operates three print production facilities in the United States – Coppell, TX; Columbus, OH; and Edgewood, NY. Broadridge's sites are electronically linked and provide disaster recovery for each other through identical systems and procedures, enabling rapid production load balancing.

Print Production Services	Broadridge provides a full range transactional print and mail services supported by dedicated programming services and customized electronic presentment solutions. Broadridge provides electronic presentment services including electronic presentment and e-delivery. Broadridge utilizes a fully automated workflow process to monitor and distribute production across multiple sites.
Postal Services	Broadridge has a strong relationship with the USPS and offers manifest mailing. In addition, Broadridge has implemented Postal One systems at two of the three U.S. sites
Electronic Presentment Services	Broadridge provides electronic presentment services including electronic presentment and e-delivery. Broadridge sells the services as a bundled package with reporting and data mining. The system tracks document delivery and reports if a customer fails to receive its documents.
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance
Certifications	<ul style="list-style-type: none"> ▪ ISO9001 ▪ Mail Preparation Total Quality Management (MPTQM)
Additional Services	<ul style="list-style-type: none"> ▪ Fulfillment of pre- and post-sale collateral ▪ Proxy processing ▪ CD-ROM production
Partners	<ul style="list-style-type: none"> ▪ Böwe Bell+Howell – Broadridge utilizes the latest hardware solutions from BBH for high-speed mechanical insertion ▪ IBM – Broadridge purchased print production sites from IBM and continues usage of IBM hardware platforms, printing systems, and management software

Table 10 – Broadridge Services Offerings

CSG SYSTEMS

With worldwide headquarters in Englewood, Colo., CSG Systems serves more than 265 customers in more than 40 countries. CSG Systems supports billing and customer-care solutions for the cable television, direct broadcast satellite, advanced IP services, mobile, and fixed wireline markets. CSG Systems provides outsourced customer service, data processing, billing, and print and mail services for the telecommunications industry.

Print Production Services	CSG offers a complete customer relationship management system for telecommunications providers backed by a transactional print and mail operation. CSG produces monochrome and color documents using a workflow process to monitor production across multiple sites. CSG's billing system includes a web-based interface for managing personalized messaging.
Postal Services	CSG provides basic postal services including ZIP Code assignment and Move/Update services, and uses an automated system to generate tray tags for each mail tray.
Electronic Presentment Services	CSG provides a presentment solution based on commercial software, which allows CSRs to retrieve, view, and print customer documents. The solution is sold as a stand-alone product or packaged with other CSG applications.
Vertical Focus	<ul style="list-style-type: none"> ▪ Telecommunications ▪ Utilities
Certifications	None
Additional Services	<ul style="list-style-type: none"> ▪ CSG Advanced Customer Service Representative® (ACSR®) – Provides user-friendly access to customer information stored in the billing and customer-care engine ▪ CSG Vantage® – Monitors customers' behaviors and conducts marketing and operational analysis ▪ CSG Care Express® – Allows customers to view, manage, and pay bills via the Internet
Partners	<ul style="list-style-type: none"> ▪ IBM – CSG utilizes IBM's InfoPrint 3900 and InfoPrint 4000 printers for monochrome print production ▪ Kodak – CSG uses Kodak's Versamark inkjet production printer for digital color output ▪ Pitney Bowes – CSG utilizes the latest hardware solutions from Pitney Bowes for high-speed mechanical insertion

Table 11 – CSG Systems Service Offerings

DOCUCORP/SKYWIRE

Recently acquired by Skywire Software, Docucorp International, Inc., provides software, professional services, and ASP hosting services. Docucorp operates facilities in Atlanta and Dallas, which provide disaster recovery and load-balancing for each other. With a strong position in the insurance vertical – specifically manual insurance lines – Docucorp provides solutions for claims processing and policy production, as well as applications in the financial services. To do this, it offers dynamic solutions that acquire, manage, personalize, and present information for the creation, management, and publishing of business communications.

Print Production Services	Docucorp provides cut-sheet and continuous monochrome print production, as well as cut-sheet digital color production. Docucorp meets a wide range of inserting requirements with both folded and flats inserters. Docucorp provides customers with a web-based portal for monitoring and reporting of production. The online interface also enables customers to manage and segment personalized messages.	
Postal Services	Docucorp provides basic postal services including ZIP Code assignment and Move/Update services, but uses third-party consolidators for some pre-sort processes.	
Electronic Presentment Services	Docucorp provides a complete electronic presentment and payment solution for multiple clients utilizing the Docucorp software suite. In addition, Docucorp hosts a document archive that is accessible through the customer portal for document search and retrieval.	
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance 	
Certifications	None	
Additional Services	Docucorp is a full-service application service provider (ASP). Customers may choose to host document composition solutions on Docucorp's servers and take advantage of Docucorp's print production services.	
Partners	<ul style="list-style-type: none"> ▪ Ascendant One ▪ Billmatrix ▪ CheckFree 	<ul style="list-style-type: none"> ▪ CSC ▪ Firstlogic ▪ Kofax

Table 12 – Docucorp/Skywire Service Offerings

DST OUTPUT

DST Output (DSTO), a subsidiary of DST Systems, provides printed and electronic customer communications. DSTO operates facilities in South Windsor, CT; Kansas City MO; and El Dorado Hills, CA, for distributed production and business continuance, as well as facilities in Canada and the United Kingdom. DSTO produces more than 2.1 billion documents per year and is the largest third-party First Class mailer in the United States.

Print Production Services	DSTO offers a complete range of print production services. DSTO is particularly well suited for high-volume transactional statement production. DSTO's production control system manages the receipt and processing of the data at DSTO's centralized data center. The DSTO production facilities track each item throughout the production process. The combination of data processing and production control systems are important for high-volume document production because reducing the number of touch points in the end-to-end process means the opportunity for error is minimized.	
Postal Services	DSTO has a strong relationship with the USPS and offers manifest mailing. DSTO's systems enable production facilities to begin shipping mail trays even if the job is not complete, so that very large jobs get into the mail stream sooner.	
Electronic Presentment Services	DSTO offers customers a complete portal solution for electronic presentment and payment as well as production reporting. DSTO offers web-based presentment access to customers and CSRs. Electronic payment options include ACH, EDI, and credit card payments. DSTO's production factory software enables clients to monitor the progress of their jobs throughout the production environment and make changes after jobs are in production without the need to call customer service.	
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance ▪ Telecommunications ▪ Utilities ▪ Health Care 	
Certifications	<ul style="list-style-type: none"> ▪ ISO 9000 ▪ Mail Preparation Total Quality Management (MPTQM) 	
Additional Services	<ul style="list-style-type: none"> ▪ Direct marketing services ▪ Fulfillment through partnership with Rapid Solutions Group ▪ Hosted customer communications software solutions for insurance and healthcare vertical markets 	
Partners	<ul style="list-style-type: none"> ▪ Accenture ▪ Amdocs ▪ Chase Paymentech 	<ul style="list-style-type: none"> ▪ Convergys ▪ Rapid Solutions Group ▪ Thomson Transaction Services

Table 13 – DST Output Service Offerings

FIRST DATA CORPORATION

First Data Corporation (FDC), with \$7.2 billion in revenues, provides electronic commerce and payment solutions to businesses worldwide, including plastic card issuing and merchant transaction processing services for clients spanning the financial, government, retail, mortgage, and insurance industries. FDC maintains two complete print and mail production facilities in Omaha, NE, and a letter-printing operation in Chesapeake, VA. FDC shares work across all three facilities using “any-to-any connectivity” that permits files to be transmitted between locations and processed at any facility to meet service level agreements (SLAs).

Print Production Services	<p>FDC provides a full range monochrome and digital color print and mail services managed through factory control software systems. FDC specializes in plastic card production, which is integrated with other First Data commercial services.</p> <p>The First Data customer portal, ProductionVision, enables clients to monitor customer processing via the web, and supports current and historical production reporting, as well as an image viewer for materials, such as inserts and envelopes.</p>
Postal Services	<p>FDC provides postal services including ZIP Code assignment and Move/Update services. FDC handles all mail in a secure environment for delivery to the United States Postal Service (USPS). FDC’s in-house presort services achieve low First Class postage rates.</p>
Electronic Presentment Services	<p>FDC offers a complete line of electronic payment and transaction processing solutions including online presentment and payment processing solutions through a partnership with CheckFree. First Data eMessenger provides electronic access to documents via web, e-mail, and text messaging. This service is packaged with other electronic services as part of First Data’s Strategic Communications Solution.</p>
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance ▪ Government ▪ Retail
Certification	<p>Mail Preparation Total Quality Management (MPTQM)</p>
Additional Services	<ul style="list-style-type: none"> ▪ Transaction processing ▪ Electronic filings ▪ ATM/POS terminal management ▪ Fraud /Risk management solutions ▪ Check clearing
Partners	<ul style="list-style-type: none"> ▪ Citicorp Payment Services ▪ Multiple banking partners ▪ National Merchant Alliances

Table 14 – First Data Corporation Service Offerings

PERSONIX

Personix (a subsidiary of Fiserv Inc.) is a leading provider of critical business communications, from plastic card manufacturing to laser printing and electronic delivery systems. Personix operates six facilities located in Boston, MA; Hartford, CT; Houston, TX; Indianapolis, IN; Nashville, TN; and St. Paul, MN, which produce printed materials for a range of vertical markets. Two of Personix's facilities are secure personalized card production centers. In addition, Personix provides electronic archive and delivery through EPSIIA and BillMatrix.

Print Production Services	<p>Personix provides a full range monochrome and toner-based color print production managed through a Böwe Bell+Howell JETS control systems and a workflow software solution. Personix also produces plastic cards within secure production facilities.</p> <p>Personix clients access production reports and online services through the Personix Web Client Control Center (WC3) portal. The portal provides job tracking, inventory control, and production performance metrics.</p>
Postal Services	<p>Personix provides basic postal services including ZIP Code assignment and Move/Update services, and conducts pre-sort operations within its facilities to commingle client jobs for additional postage savings.</p>
Electronic Presentment Services	<p>Personix ClickMail provides document presentment or electronic document delivery via e-mail. The solution includes several payment options. Personix offers ClickMail as a stand-alone product or part of a larger service offering.</p>
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Healthcare ▪ Retail ▪ Telecommunications
Certification	VISA Card Processing
Additional Services	<ul style="list-style-type: none"> ▪ Document imaging ▪ Remittance processing
Partner	EPSIIA

Table 15 – Personix Service Offerings

PITNEY BOWES MANAGEMENT SERVICES

Pitney Bowes Management Services (PBMS) is the facilities management and outsourcing arm of Pitney Bowes. PMBS provides facilities management and outsourced services to corporations that include print, insertion, and mail operations, incoming mailroom management, forms management, and other document management services. PBMS operates facilities in Shelton, MA; Hartford, CT; and Detroit, MI.

Print Production Services	PBMS provides monochrome production, but lacks support for digital color production. PBMS uses Pitney Bowes mechanical inserters for all insertion operations. The operations support multiple print management and workflow systems as part of a robust disaster-recovery computer environment.
Postal Services	PBMS provides basic postal services including ZIP Code assignment and Move/Update services. A different Pitney Bowes company, PSI, is the largest pre-sort mail house in the U.S. with more than 30 locations.
Electronic Presentment Services	PBMS supports electronic presentment using Pitney Bowes D3 Advantage software.
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance ▪ Healthcare ▪ Telecommunications
Certifications	None
Additional Services	<ul style="list-style-type: none"> ▪ Business Recovery Services – disaster recovery for 37 clients ▪ Document scanning ▪ Print and copy outsourcing (ADF) ▪ Online billing and payment
Partners	<ul style="list-style-type: none"> ▪ IBM ▪ Océ ▪ Xerox

Table 16 – Pitney Bowes Management Services Service Offerings

RR DONNELLEY

RR Donnelley (RRD) is the largest commercial printer in North America. Its solutions include commercial printing, forms and labels, direct mail, financial printing, print fulfillment, business communication outsourcing, logistics, online services, digital photography, and content and database management. The Integrated Print Communications group consists of short-run and variable print operations in the following lines of business: book, financial print, direct mail, business communications services, and short-run commercial print (a.k.a. print on demand). The group operates eight U.S. production facilities in Boston, MA; Logan, UT; Nashville, TN; St. Charles, IL; Thurmont, MD; Windsor, CT; Winston-Salem, NC; and Grand Island, NY, and also offers services in Europe and Asia.

Print Production Services	<p>RRD provides monochrome and toner-based color print production managed through a factory control system. RRD offers personalized messaging through document composition software interfaces, and stores both messages and graphics in the software's repository.</p> <p>RRD provides a web-based portal for proofing, document management, dynamic publishing, and special handling, including pulls. The portal also provides access to pre-formatted reports, which RRD generates and uploads for client access.</p>	
Postal Services	<p>RRD provides basic postal services including ZIP Code assignment and Move/Update services. RRD utilizes CASS- and PAVE-certified software for address hygiene and sorting, respectively.</p>	
Electronic Presentment Services	<p>RRD offers online presentment and payment processing solutions through multiple partnerships. Customers access the presentment as well as the reporting via RRD's client portal application.</p>	
Vertical Focus	<ul style="list-style-type: none"> ▪ Financial Services (Brokerage, Mutual Fund, Banks) ▪ Insurance ▪ Telecommunications 	
Certifications	None	
Additional Services	<ul style="list-style-type: none"> ▪ Traditional publishing ▪ Compliance services for production of 1099, 1098, W-2, and 5498 forms ▪ Card production services for production of prepaid cards 	
Partners	<ul style="list-style-type: none"> ▪ Abiliti Solutions ▪ CheckFree 	<ul style="list-style-type: none"> ▪ Direct Insite ▪ Princeton eCom

Table 17 – RR Donnelley Service Offerings

APPENDIX – ABOUT MADISON ADVISORS

Madison Advisors exists to advance the print and electronic communications objectives of Fortune 1000 companies. Madison Advisors specializes in offering context-specific guidance for a range of content delivery strategies, particularly those addressing enterprise output technologies and customer communications.

Madison Advisors offers services and expertise primarily through near-term, high-impact consulting services. With no-nonsense, quick engagements (measurable in days or weeks, not months), Madison Advisors directly helps our clients achieve very hard and specific return on investment (ROI) related to their print and electronic communications initiatives.

Madison Advisors' analysts are dedicated to technology and market research that is delivered through near-term project engagements as well as articles, publications, and presentations. We specialize in customer communication technologies including enterprise output management, content management, customer relationship management, e-billing, and infrastructure technology.

For more information about Madison Advisors visit our web site – www.Madison-Advisors.com.