

PUBLIC VERSION

BEFORE THE
POSTAL REGULATORY COMMISSION
WASHINGTON, D.C. 20268-0001

COMPLAINT OF GAMEFLY, INC.)
)
) Docket No. C2009-1

**MOTION OF GAMEFLY, INC.
TO ADMIT CERTAIN POSTAL SERVICE DOCUMENTS
INTO THE RECORD
(October 29, 2010)**

Pursuant to Presiding Officer Blair’s instructions during the hearing yesterday, GameFly, Inc. (“GameFly”) hereby moves to have the documents bearing Bates numbers GFL685-704, 732-737, 761-773, 844-845, 849-854, 921-938 and 1020-1063 admitted into evidence and transcribed into the formal record. The documents are reproduced in full in the proprietary version of this motion, and in redacted form in the public version of this motion.

At issue are portions of three groups of documents that were produced by the Postal Service in discovery in this case:

- (1) An unredacted version of the November 8, 2007, Audit Report of the Postal Service’s Office of Inspector General (“OIG”), *Review of Postal Service First-Class Permit Reply Mail* (Report No. MS-AR-08-001) (GFL685-704).

- (2) Memoranda and other documents generated by an internal Postal Service working group that considered the appropriate rate and classification treatment of round-trip DVD mailers (“RDM”) in 2005-2007 (GFL732-737, 761-773, 844-845, 849-54).
- (3) The August 2006 and November 2006 reports of the Postal Service’s consultant, Christensen Associates, on the costs of processing Netflix DVD mail (GFL921-938, 1020-1063).

The pages at issue are a subset of the binder of documents that GameFly filed with the Commission as an attachment to its September 25, 2009, motion to unseal. All of the pages at issue were reviewed by the Commission and ordered unsealed, with confidential information redacted, in Presiding Officer’s Ruling No. C2009-1/17 (issued April 15, 2010). Portions of the documents contained in these pages were quoted or cited in the Memorandum of GameFly, Inc., Summarizing Documentary Evidence (filed April 12, 2010) or the Testimony of Sander Glick filed on the same date (GFL-T-1).¹ Moreover, many of these pages, or other pages from the same documents, were formally admitted into the record at Tr. 4/158-652 (June 16, 2010). Since then, the documents have been the subject of cross-examination by Postal Service counsel, rebuttal by Postal

¹ In the case of GFL 849-54, “Status Report and Recommendation on Filing an Experimental Classification for Round-trip Disc Mail, Individual Teleconferences with Mailers and Envelope Manufacturers, 21-23 September 2005,” an August 26, 2005 version of this report with much of the identical language was cited in GameFly’s April 12, 2010 Memorandum and appears in the record at Tr. 4/185-99 and 542-64. The September 2005 version, GFL 849-54, submitted with this motion was not specifically cited in the April 12 Memorandum, though it was submitted with GameFly’s Motion to Unseal.

Service witnesses, and comment and questions by members of the Commission during the hearings.

To give the Postal Service fair notice of and opportunity to respond to the documents, GameFly had them Bates numbered; served the Postal Service with CDs containing the Bates numbered version of the complete set of documents; and included citations to the Bates numbered pages wherever GameFly cited to the documents in its April 12, 2010 Documentary Memorandum, the direct and rebuttal testimony of Mr. Glick, and GameFly's subsequent discovery responses. In addition, GameFly created and served on all parties, including the Postal Service, a complete set of the documents at issue as an appendix to GameFly's September 25, 2009, motion to unseal, and filed redacted versions of these documents with the Commission on May 10, 2010.

On October 27, 2010 however, both the Presiding Officer and the Public Representative expressed a desire to have the cited pages reproduced more formally and unambiguously as part of the record. First, Presiding Officer's Ruling No. C2009-1/42 advised the parties that a number of documents "produced during discovery" and cited in the filings of GameFly or the Postal Service had "not been copied into one of the public or non-public transcripts in this proceeding." The POR directed the parties to accompany their post-trial briefs with appendices containing, *inter alia*, any "documents . . . that are cited in [the] briefs and are not set forth in the transcripts developed in this proceeding." On the same day, Rand Costich, the Public Representative in this case, sent counsel for GameFly an email stating that some of the documents cited in the

testimony of GameFly witness Sander Glick “appear to be in Tr. Vol. 4, but others aren’t. I plan to ask where one can find those documents.”²

That evening, counsel for GameFly reviewed the record and identified the specific pages that had not been formally moved into evidence. The purpose of this motion is to eliminate any doubt about the evidentiary status of the documents by formally moving them into the record now.

In the remainder of this motion, we explain why the formal admission of the documents is appropriate. We discuss each group of documents in turn.

A. The OIG Report

The relevance of the OIG report can hardly be disputed. GameFly, the Postal Service, and members of the Commission have all focused on it in this case:

- GameFly has cited it extensively, and GameFly’s expert witness, Sander Glick, explicitly relied on the report in his direct and rebuttal testimony. Complaint (April 23, 2009) at ¶¶ 36, 37, 41; Glick Direct (GFL-T-1) at 8, Memorandum Of GameFly, Inc., Summarizing Documentary Evidence (April 12, 2010) (“GameFly Document Roadmap”) at ¶¶ 50, 56, 66, 67, 119, 134, 140; Glick Rebuttal (GFL-RT-1) at 4, 16, 20 n. 13, 21-22, 28 n. 19.

² Email from Rand Costich to David Levy (October 27, 2010, 6:06 pm).

- The OIG report, and the response (or non-response) of the Postal Service to the report, were the subject of an extended colloquy between Commissioner Blair and USPS witness Barranca that was initiated by Commissioner Blair. Tr. 10/1883-1887.
- Even the Postal Service has acknowledged the continuing relevance of the OIG report as a benchmark for the amount of manual processing received by Netflix mail. Joint Statement Of Undisputed And Disputed Facts (July 20, 2009) at ¶¶ 83, 84, 87; USPS answers to GameFly discovery requests GFL/USPS-6 and 17-20.

The authenticity and evidentiary foundation of the OIG report cannot be seriously challenged. The OIG is a highly respected investigative arm of the Postal Service. The source of the report (including the proprietary portion) was the Postal Service itself, which produced the document in response to GameFly discovery request GFL/USPS-5. The public portion of the report—which includes all but a page or two of the entire document—can be downloaded from the OIG’s website at http://www.uspsoig.gov/rr_all.cfm. Furthermore, several pages of the report are already in the formal record at Tr. 4/281-284.

Unsurprisingly, the Commission admitted these documents despite the objection of the Postal Service. During the hearing on June 16, 2010, the Postal Service objected to admission of the report, along with a variety of other Postal Service documents, on the ground that GameFly had not offered a sponsoring witness for them. The Presiding Officer nonetheless admitted the OIG report and other documents because the documents had sufficient reliability as business

records and admissions by the Postal Service, the producing party. He made his ruling subject to reconsideration if the Postal Service moved within one week to strike the documents from the record. Tr. 4/666; *cf.* Tr. 3/72, 4/155 (USPS objections). The Postal Service never filed such a motion, however. Accordingly, Presiding Officer's Ruling No. C2009-1/24 held that the Postal Service, by failing to submit a timely motion to strike any of the documents proffered by GameFly during the June 16 hearing, had waived its right to further challenge the admission of these documents. POR-24 at 2 fn. 5; *id.* at 12. The Postal Service did not seek administrative review of POR-24 by the full Commission. The ruling thus constitutes the law of the case, barring further litigation of the issue.

Two more recent rulings have reiterated the admissibility of documents of this kind. In POR-40, the Presiding Officer explained that “[t]he Postal Service views the scope of admissibility too narrowly” and that “[d]ocuments produced in the ordinary course of business tend to be admissible.” POR-40 at 8. The Presiding Officer further noted that the proposition that the documents of record in this case should be excluded on the grounds of authenticity “has repeatedly been denied under the law of the case.” *Id.* at 8 n.13. In POR-41, the Presiding Officer again overruled the Postal Service's objection to the authenticity of a document that it produced in discovery. POR-41 at 2. Once again, the Presiding Officer pointed out that documents created in the ordinary course of business

and produced by a party in discovery typically do not require any further authentication.³

Finally, the Postal Service cannot claim that admission into evidence of the remainder of the OIG report would result in unfair surprise. The Postal Service has had a complete copy of the report since November 2007, and has possessed the Bates-numbered version from GameFly for more than a year. GameFly, by citing the OIG report repeatedly (including in Mr. Glick's direct and rebuttal testimony), clearly put the Postal Service on notice that GameFly was relying on the report. The Postal Service could have cross-examined Mr. Glick about the OIG report during any of his three appearances on the witness stand in this case, and in fact cross-examined him extensively about the report during the hearing yesterday, October 28.

B. The Christensen Associates reports

The relevance of the Christensen Associates reports, like the OIG report, is indisputable. GameFly, the Postal Service, and members of the Commission have all focused on the Christensen reports in this case:

³ These rulings are consistent with precedent under the Federal Rules of Civil Procedure, a fact that is noteworthy given the more stringent standards of admissibility generally followed by federal courts. See Fed. R. Evid. 801(d)(2)(D) ("a statement by the party's agent or servant concerning a matter within the scope of the agency or employment, made during the existence of the relationship" is not hearsay if offered against the party); Fed. R. Evid. 803(6); Fed. R. Evid. 803(8); *United States v. Lavalley*, 957 F.2d 1309, 1314 (6th Cir. 1992) (letters from commander of military base were admissible as business records); *United States v. Boylan*, 898 F.2d 230, 257 (1st Cir. 1990) (police personnel files were admissible as business records).

- GameFly has cited it extensively, and GameFly’s expert witness, Sander Glick, relied heavily on the report in his direct and rebuttal testimony. Memorandum Of GameFly, Inc., Summarizing Documentary Evidence (April 12, 2010) (“GameFly Document Roadmap”) at ¶¶ 65, 66, 93, 95, 143; Glick Direct (GFL-T-1) at 4-10, 12; Glick Rebuttal (GFL-RT-1) at 3, 6-9, 16, 20-21, 23-24, 29-31.
- GameFly performed extensive discovery regarding the Christensen study. These include GFL/USPS-35, 36, 112, 113, 143, 160, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 180, 181, 182, 184, 196, 198, 200, 201, 203, 204, 205, 206, 207, 208, 212, 217, 218, 220.
- The Postal Service has also invoked the Christensen report. USPS answers to GFL/USPS-17, 18 (admitting that the Postal Service used the Christensen Report to estimate manual culling); USPS response to GFL/USPS-202 (using the Christensen report to make the point that the handling of Netflix mail is not identical at all facilities); Tr. 10/17889, 1792-93, 1795 (USPS witness Seanor) (citing Christensen report as support for his position on the efficiency of culling Netflix mail at the point of collection).
- On October 8, the Postal Service produced documents in response to GFL/UPS-225. Included in these documents is a pdf of a preliminary version of the Christensen model. In an accompanying document, the Postal Service’s response to Presiding Officer’s Ruling No. C2009-

1/40, the Postal Service stated that it “might rely on [these documents] in this case.”

Nor can the authenticity and evidentiary foundation of the Christensen reports be seriously challenged. Christensen Associates is a reputable economic consulting firm, and it produced the report with support from knowledgeable subject matter experts from Postal Service headquarters. See USPS response to GFL/USPS-163(c) (“[The Christensen cost models] are the best, and most recent, available cost estimates, as the Christensen study is the only such cost study that has been performed.”) GameFly obtained the reports directly from the Postal Service in discovery (see USPS answer to GameFly discovery request GFL/USPS-35 and -36), and the Postal Service can hardly dispute their authenticity. Because the Postal Service commissioned the report, it constitutes an admission by the Postal Service, an exception to the hearsay rules.

Furthermore, portions of the report have already been transcribed in the formal record at Tr. 4/236, 365-66. The Presiding Officer admitted these portions into evidence over the objection of the Postal Service on the ground that the documents had sufficient reliability as business records and admissions by the Postal Service, the producing party. As noted above, the Postal Service did not file a timely challenge to this ruling or seek administrative review of POR-24, and they now constitute the law of the case, barring further litigation of the issue. *Accord*, POR-40 and 41 (discussed above).

Finally, the Postal Service cannot claim that admission into evidence of the remainder of the Christensen reports would result in unfair surprise. The

Postal Service, which produced the reports in discovery, has had complete copies of them since their creation in 2006 (and has possessed the Bates-numbered versions from GameFly for more than a year). GameFly, by citing the Christensen reports repeatedly (including in Mr. Glick's direct and rebuttal testimony), clearly put the Postal Service on notice that GameFly was relying on the report. The Postal Service could have cross-examined Mr. Glick about the reports during any of his three appearances on the witness stand in this case.⁴ The Postal Service in fact cross-examined Mr. Glick about the reports during the June 16 hearing on his direct testimony (see Tr. 3/100-113), and at even greater length during the hearing yesterday, October 28.

C. Memoranda and other documents generated by an internal Postal Service working group that considered the appropriate rate and classification treatment of round-trip DVD mailers ("RDM") in 2005-2007.

The remaining pages at issue are memoranda, minutes and other documents generated between 2005 and 2007 by the Postal Service's internal RDM work group. The relevance of the documents is clear; they discuss many of the same costing and operational issues that have arisen in this case.

Nor can the authenticity and evidentiary foundation of the RDM documents be seriously challenged. GameFly obtained the documents directly

⁴ The Postal Service also could have sponsored one of the Christensen Associates professionals involved in the studies to challenge GameFly's interpretation of the studies if Christensen Associates believed that the interpretation was inaccurate or misleading. The Postal Service's failure to sponsor a Christensen Associates witness for this purpose is telling—the equivalent of Sherlock Holmes' dog that did not bark.

from the Postal Service in discovery, and the Postal Service can hardly dispute their authenticity. Because the Postal Service employees created the documents in the course of their employment, they constitute admissions by the Postal Service, thus falling within an exception to the hearsay rules.

For these reasons, the Presiding Officer admitted a substantial number of RDM working group documents into evidence over the Postal Service's objections. Tr. 4/353-57, 359; Presiding Officer's Ruling No. C2009-1/24; *accord*, Presiding Officer's Ruling No. C2009-1/40 and 41. These documents have been transcribed in the formal record at Tr. 4/158, 185-199, 202-215, 217-234, 288-297, 351-364, 377 and 537-575.

Finally, the Postal Service cannot claim that admission into evidence of the remainder of the RDM documents proffered by GameFly would result in unfair surprise. The Postal Service, which produced the reports in discovery, has had complete copies of them since their creation in 2005-2007 (and has possessed the Bates-numbered versions from GameFly for more than a year). GameFly, by specifically citing the documents (including in GameFly's April 12, 2010, document roadmap and Mr. Glick's rebuttal testimony), clearly put the Postal Service on notice that GameFly was relying on the documents. GameFly Document Roadmap (April 12, 2010) at ¶¶ 28, 33, 36, 51, 114, 143; Glick Rebuttal (GFL-RT-1) at 10 n. 5, 11 n. 5. Accordingly, the Postal Service could have cross-examined Mr. Glick about the documents during one or more of his appearances on the witness stand.

CONCLUSION

For the foregoing reasons, the documents submitted herewith should be formally admitted into evidence and transcribed into the record.

Respectfully submitted,

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October 29, 2010

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APPENDIX A

DOCUMENTS SUBMITTED FOR THE RECORD



November 8, 2007

[REDACTED] ^{US110}
ACTING VICE PRESIDENT, PRICING AND CLASSIFICATION

[REDACTED] ^{US109}
VICE PRESIDENT, CUSTOMER SERVICE

[REDACTED] ^{US102}
VICE PRESIDENT, ENGINEERING

SUBJECT: Audit Report – Review of Postal Service First-Class Permit Reply Mail
(Report Number MS-AR-08-001)

This report presents the results of our self-initiated audit of the U.S. Postal Service First-Class Permit Reply Mail (PRM) (Project Number 06YG041MS000). We initiated this audit based on concerns raised regarding potential preferential treatment given to a large digital versatile disc (DVD) mailer. Our objective was to determine whether PRM mailers' mailpieces are processed in accordance with their approved classification and pricing.

The Postal Service generally processes PRM mailpieces in accordance with their approved classification and pricing, as outlined in the *Domestic Mail Manual* (DMM). However, employees manually process approximately 70 percent of the approved First-Class two-way DVD return mailpieces from one DVD rental company because these mailpieces sustain damage, jam equipment and cause missorts during automated processing. Nonmachinable mailpieces are subject to a surcharge. However, the DMM does not currently address the characteristics of the mailer's two-way DVD return mailpiece that make it nonmachinable.

Because these mailpieces are not machinable, the Postal Service pays significant additional labor costs to manually process them. We estimate the additional labor costs to process these mailpieces were \$41.9 million during the past 2 years, and will be \$61.5 million over the next 2 years. We will report this monetary impact of \$103.4 million in our *Semiannual Report to Congress* as \$41.9 million in unrecoverable costs and \$61.5 million in funds put to better use.

We recommended management revise the DMM's Nonmachinable Criteria for First-Class letter-size mail to identify additional nonmachinable characteristics and physical

This report has not yet been reviewed for release under FOIA or the Privacy Act. Distribution should be limited to those within the Postal Service with a need to know.

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standards for these mailpieces. We also recommended management notify affected mailers that Postal Service Engineering must test the mailers' two-way DVD return mailpieces against the revised Nonmachinable Criteria to ensure the affected mailpieces are machinable, or be subject to the \$0.17 nonmachinable surcharge. Should a mailer not make its mailpiece machinable, we recommended management ensure Business Mail Entry Unit employees begin collecting the \$0.17 per piece nonmachinable surcharge.

Management was not responsive to the findings and recommendations because, although they indicated agreement with the recommendations, they did not provide actions to address the recommendations nor did management provide action completion dates. Management has no initiatives in progress, completed, or planned to address the issues in this report. Management's comments and our evaluation of these comments are included in the report.

The OIG considers recommendations 1, 2, and 3 significant, and therefore requires concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the follow-up tracking system until the OIG provides written confirmation the recommendations can be closed.

We appreciate the cooperation and courtesies provided by your staff during the review. If you have any questions or need additional information, please contact [REDACTED] [REDACTED], Director, Sales and Service, or me at (703) 248-[REDACTED].

[REDACTED]
[REDACTED]
Deputy Assistant Inspector General
for Revenue and Systems

Attachments

cc: [REDACTED]

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GFL0000686

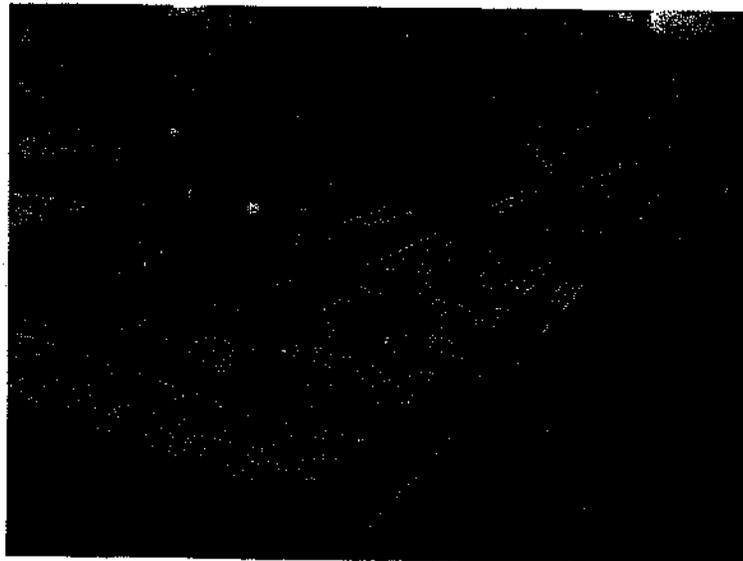
INTRODUCTION

Background

The U.S. Postal Service delivers optical disks, digital versatile discs (DVDs), compact discs (CDs), and minidisks for on-line rental service companies such as Netflix, Inc.[®], Blockbuster Online[®], GameFly[®], and [REDACTED] through the use of prepaid envelopes using the Business Reply Mail (BRM) and Permit Reply Mail (PRM) formats. Subscribers receive the DVDs or CDs through the mail, generally with 1-day delivery.

These companies use the Postal Service for timely delivery of rented DVDs and CDs. For example, one DVD rental company operates more than 100 shipping centers throughout the U.S. and, on average, ships 1.6 million DVDs each day. Another DVD rental company ships DVDs via the Postal Service from 38 distribution centers in the U.S. Other companies have also entered the marketplace with similar product offerings, bringing increased revenue to the Postal Service.

Outbound PRM two-way DVD mailpieces processed with other First-Class Mail[®] at the Houston, Texas, Processing and Distribution Center (P&DC), November 2, 2006.



PRM is a mailer service which enables a permit imprint holder to receive First-Class Mail[®] and Priority Mail[®] back from customers by prepaying postage for reply pieces at the time of mailing. Mailers must distribute PRM pieces as part

of a discount First-Class Mail mailing and not through any other means.¹

On August 3, 2006, the Postal Service launched PRM to replace BRM because DVD mailpieces were not well-suited for the BRM classification. Mailers who use PRM are those who have close to 100 percent returns, such as DVD rental companies.

Most PRM mailers currently use a two-way DVD mailpiece for shipping to and from the customer, where the envelope used to ship the DVD to the customer is converted and used to return the DVD to the rental company (referred to as the two-way DVD return mailpiece). One DVD rental company mailer places the DVD in the front of the envelope on its way to the customer, creating a hard leading edge on the mailpiece. On the return trip back to the rental company, the DVD ends up on the trailing edge when the envelope is converted by the customer. This is because the customer tears off the perforated cover of the envelope to expose the return address. The return address information is printed upside down relative to the original cover, meaning that the envelope must be rotated 180 degrees to be processed upright. After this rotation, the DVD is positioned on the trailing edge of the envelope, creating a leading flap that is referred to as a "floppy leading edge."

Regarding pricing, PRM DVD mailers present their mailings at a business mail entry unit, and most pay First-Class presort automation letter rates for outbound mailpieces. Postage for the return envelopes is prepaid at full First-Class Mail rates and is collected when the outbound pieces are mailed. Mailpieces that fail one or more of the nonmachinable criteria in the Domestic Mail Manual (DMM) are assessed a nonmachinable surcharge of \$0.17 per piece.²

The Postal Service has two ways of granting PRM authorizations. Mailers wishing to obtain individual mail entry site authorizations must apply for PRM through the Manager, Business Mail Entry (MBME) at the district office where the permit imprint account is held, and mailpieces must be approved by the local Mailpiece Design Analyst. Mailers seeking a national authorization must submit a

¹ DMM, Section 507.9.1.1 (updated May 14, 2007).

² DMM, Section 133.1.9 (updated May 14, 2007).

request to the Pricing and Classification Service Center (PCSC).

Locally, if a mailpiece's design cannot be authorized according to the DMM, the MBME informs the mailer in writing that the PCSC will make a determination. The letter sent by the MBME to the mailer should request that the mailer provide additional sample mailpieces to the MBME, along with a letter asking that these mailpieces be tested by Postal Service Engineering (Engineering) for automation letter-size rates. The MBME forwards the mailer's letter and sample mailpieces to the PCSC for a determination. The PCSC then follows its normal authorization procedures (outlined below).

The PCSC receives letter requests directly from mailers seeking a national authorization or from MBMEs seeking clarification for a local authorization. These requests include sample mailpieces to be tested. The PCSC reviews the mailpieces and determines whether to deny authorization or forward the sample mailpieces to Marketing's Mailing Standards group, to Engineering, or to both for further review. Engineering notifies Mailing Standards and the PCSC of test results in writing, and the PCSC or Mailing Standards issues a ruling to the mailer. Marketing announces national authorizations in the *Pricing & Classification Weekly Communication* and any other media that reach the internal postal audience.

To better understand how DVDs are processed, the Postal Service contracted with an outside consultant to study the mail characteristics and processing methods used by postal facilities that process DVD envelopes. This study, titled *United States Postal Service (USPS) Mail Characteristics Study of DVD-by-Mail*, includes cost and volume estimates that reflect the Postal Service's current processing methods. Results of this study are discussed later in this report.

Objective, Scope, and Methodology

See Appendix A.

Prior Audit Coverage

We did not identify any prior audits or reviews related to the objective of this audit.

AUDIT RESULTS

Many Two-Way DVD Return Mailpieces Processed Manually, But Surcharge Not Assessed

The Postal Service generally processes PRM mailpieces in accordance with their approved DMM classification and pricing. However, approximately 70 percent³ of one DVD rental company's approved First-Class two-way return mailpieces⁴ are manually processed. The Postal Service manually processes such a significant number of these mailpieces because of the nonmachinability of the envelope design. This design uses a floppy leading edge, which often sustains damage, causes jams in equipment, and missorts during automated processing.

The Postal Service has specific criteria in the DMM to determine whether letter mail is nonmachinable.⁵ Currently, the envelope design with the floppy leading edge meets these criteria, as none of the negative characteristics listed in the DMM specifically apply to this type of mailpiece.

Additionally, in 2002, Postal Service Marketing's Preparation and Standards⁶ group (Marketing) notified this DVD rental company that their two-way DVD return mailpiece was machinable, although Engineering had determined 2 weeks earlier that the same mailpiece was not automation-compatible. As a result, the mailer was not required to pay either the current \$0.17 or older (prior to May 14, 2007) \$0.13 nonmachinable surcharge.⁷

Manually processing these mailpieces is costly to the Postal Service. We estimated that the costs to the Postal Service for this manual effort for the past 2 years were \$41.9 million. If the Postal Service were to revise the DMM's nonmachinable criteria⁸ to identify additional characteristics and physical standards for First-Class letter mailpieces with the same design and general characteristics as the current mailer, the Postal Service could reduce processing costs

³ The OIG performed a statistical sample of 24 Postal Service sites that handle the DVD rental company's return mailpieces. Based on projections of the sample results, we estimate 70 percent of this company's two-way DVD returned mailpieces were processed manually.

⁴ A return mailpiece is one that a customer is returning to the mailer.

⁵ DMM 101, *Physical Standards*, Section 1.2, *Nonmachinable Criteria*.

⁶ Marketing's Preparation and Standards group has been renamed Mailing Standards and reports to the Vice President, Pricing and Classification.

⁷ On May 14, 2007, the Postal Service announced a rate change. DMM 133, *Rates and Eligibility*, Section 1.9, *Nonmachinable Surcharge*, now requires a \$0.17 surcharge for any nonmachinable mailpiece. Prior to May 14, 2007, the surcharge was \$0.13 per piece (DMM 133.1.6, Footnote 3).

⁸ DMM 101, *Physical Standards*, Section 1.2, *Nonmachinable Criteria*.

and would have funds put to better use of \$61.5 million over the next 2 years. (See Appendix B for details.)

Manual Processing
Observed

In 2005, the Postal Service contracted with an outside consultant to study the mail characteristics and processing methods used by Postal Service facilities that process two-way DVD mailpieces. The outside consultant concluded that the Postal Service manually processed 77 percent of one of the large on-line DVD rental companies' two-way DVD return mailpieces.

Through observation and contact with 24 P&DCs, the U.S. Postal Service Office of Inspector General (OIG) estimates that 70 percent of this DVD rental company's two-way DVD return mailpieces are manually processed, a figure slightly lower than the outside consultant's 77 percent. Both the outside consultant and the OIG observed that the two-way return mailpieces are diverted at various points throughout the mailstream and processed manually rather than being processed by automation, as required by two-way DVD classification and pricing.

At the P&DCs where the OIG observed two-way DVD mail processing, we found operations personnel manually taking two-way DVD return mailpieces from the initial rough cull;⁹ from the Advanced Facer-Canceller System machine; and at other points during processing operations for later facing¹⁰ and placing them in trays at the end of the shift. Western Area management issued a standard operating procedure (SOP) directing delivery and operations employees to isolate all two-way DVD return mailpieces from the mailstream before they enter the plant for processing. At the Denver P&DC, we found that even with an SOP to isolate all two-way DVD return mailpieces before they arrive at the plant, operations personnel still removed PRM mailers to be faced and placed in trays at the end of the shift. At the Queens, NY P&DC, we found a sign instructing operations personnel to pull out one DVD rental

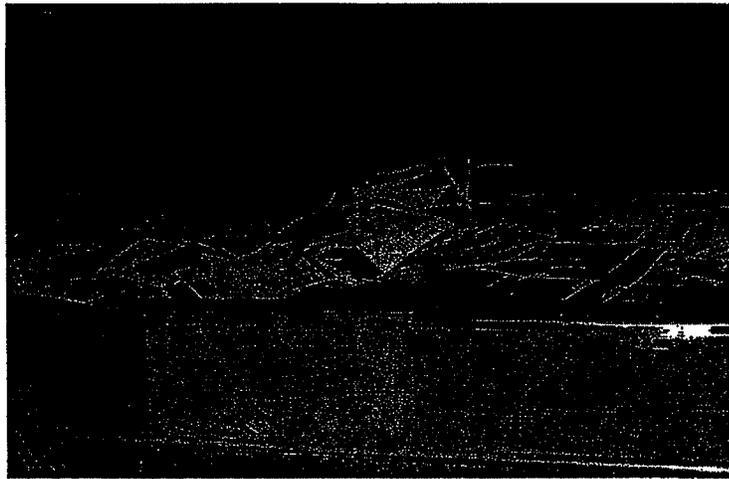
⁹ Culling refers to removing, by hand, nonletter mail (such as small parcels, rolls, and odd-shaped material) from letter mail, and nonmachinable mailpieces from automation rate pieces.

¹⁰ Facing refers to arranging mail in a uniform orientation with the delivery address facing forward and the postage stamp, meter stamp, or permit imprint positioned in the upper right corner.

company's return mailpieces from collection mail. The OIG did not observe any other PRM mailer's two-way DVD return mailpieces being manually processed as much as this specific mailer's pieces were manually processed.

At the P&DCs where the OIG observed Postal Service processing of two-way DVD mailers, operations personnel told the OIG that the return mailpieces were manually pulled to avoid damaging the mailpiece, jamming the mail processing equipment, and missorting during processing.

After being removed from the mailstream, PRM mailpieces at the Denver P&DC await facing and placing in trays, November 8, 2006.



The outside consultant's study also noted:

"Often employees cull the easily identifiable bright colored envelopes from the automated mail stream. Some supervisors in mail processing facilities believe these pieces will not run correctly on automation machinery based on their experiences working with this equipment, or feel that the risk of damage, mis-sorts, or rejects justifies their removal from the automated processing stream. It was not unusual to see containers of separated return DVDs at points throughout the mail processing flow."

Improper Notification
Letter Provided

On June 11, 2002, Engineering issued a letter to the DVD rental company regarding the test results of their two-way DVD mailpiece. Engineering concluded that the return portion of the two-way envelope used by this mailer was not

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automation compatible because "the pieces did not stack correctly" and "many pieces. . . had the flimsy end fold over and covered the address information." The letter did not address machinability.

In response to Engineering's letter, on June 17, 2002, the mailer sent an e-mail questioning Engineering's determination. On June 24, 2002, Marketing responded to the mailer with a letter stating that although their two-way DVD return mailpieces were "not completely automation-compatible, [they] were machinable." The letter also stated, "return pieces tested would not be subject to the nonmachinable surcharge effective June 30, 2002, for mailpieces that must be handled manually."

Marketing's June 24, 2002, letter negated Engineering's determination that the mailpieces were not automation-compatible by stating that this DVD mailer's return mailpieces, "although not completely automation-compatible, were machinable." By adding the phrase "although not completely," Marketing not only changed Engineering's earlier determination that this DVD mailer's return mailpieces sent in for testing "were not automation compatible," but also made a determination on machinability without performing flexibility testing on the mailpiece. The DMM¹¹ states that Engineering, not Marketing, is responsible for advising mailers of its findings (by letter) regarding the results of flexibility testing.

The OIG asked Engineering representatives for all copies of the 2002 testing results, but were told that none existed. Engineering officials told the OIG they did not know of any separate testing that Marketing conducted on the subject mailpieces in order to arrive at their conclusion. We questioned both Marketing and Engineering officials about whether the return mailpieces were machinable. Marketing asserts – and Engineering denies – that Engineering advised Marketing that the return mailpieces were machinable.

In addition, in December 2005, Postal Service Engineering conducted testing on a two-way DVD mailpiece submitted by another DVD rental company that was similar to the one

¹¹ DMM 201, Section 3.11.2 states in part: "A mailer wanting to have mailpieces tested for flexibility must submit at least 50 sample pieces and a written request to USPS Engineering. . . . The request must describe mailpiece contents. . . and Engineering advises the mailer by letter of its findings."

used by the aforementioned DVD rental company. Engineering determined that the return portion of this other company's DVD mailer was nonmachinable. In a December 28, 2005, letter to the company, Engineering noted the similarities between the two companies' DVD mailpieces, stating:

"It should be noted that Engineering tested a similar mailpiece in 2002 and in a letter dated June 11 of that year, informed [a DVD rental company] that the mailpiece was not automation compatible. The samples submitted by [the other company] have not been modified in any way that would significantly improve machinability. . . . In a sense, this mailpiece design is being tested everyday throughout the Postal system with very poor results. Engineering's ongoing experience with the poor machinability of [the DVD rental company's] mailers indicates that the [current] design will sustain damage, cause jams and be mis-sorted during processing. This will lead operations personnel to divert the mailers from the automation mail stream and handle them manually. Based on current experience, the test performed and the tabbing deficiencies noted, Engineering finds [the other company's] two-way DVD mailer is not machinable."

Engineering's determination that the other DVD rental company's mailpiece is nonmachinable is inconsistent with Marketing's determination that the DVD rental company's identical mailpiece is machinable. The Postal Service should give consistent treatment to two mailpieces with the same characteristics. Inconsistent treatment of mailpieces with the same characteristics may lead mailers to perceive that the Postal Service shows favoritism towards some DVD rental service companies.

DMM Nonmachinable
Criteria Needs
Revision

The DMM does not address characteristics that make the DVD rental company's two-way return mailpiece nonmachinable.

DMM, Section 101 gives criteria for identifying mailpieces that are subject to the nonmachinable surcharge. The following guidance was in effect at the time Marketing determined the mailpiece to be machinable:

- DMM, Section 101.6.4.1: Letter-size pieces that weigh 1 ounce or less and meet one or more of the nonmachinable characteristics in section 1.2 are subject to the nonmachinable surcharge (see section 133.1.9).
- DMM, Section 101.1.2: A letter-size piece is nonmachinable if it has one or more of the following characteristics, including:
 - a) An aspect ratio (length divided by height) of less than 1.3 or more than 2.5.
 - b) Is polybagged, polywrapped, or enclosed in any plastic material.
 - c) Has clasps, strings, buttons, or similar closure devices.
 - d) Contains items such as pens, pencils, or loose keys or coins that cause the thickness of the mailpiece to be uneven.
 - e) Is too rigid (does not bend easily when subjected to a transport belt tension of 40 pounds around an 11-inch diameter turn).
 - f) For pieces more than 4-1/4 inches high or 6 inches long, the thickness is less than 0.009 inch.
 - g) Has a delivery address parallel to the shorter dimension of the mailpiece.
 - h) Is a self-mailer with a folded edge perpendicular to the address if the piece is not folded and secured.
 - i) Booklet-type pieces with the bound edge (spine) along the shorter dimension of the piece or at the top.

Although the DVD rental company's two-way DVD return mailpiece adheres to the DMM machinability criteria listed above, Engineering's testing of this and similar mailpieces

has consistently shown that this type of mailpiece is not machinable. Engineering has noted that mailpieces with this design "will sustain damage, cause jams, and be missorted." The OIG, through observations of DVD mailpiece processing conducted at 10 P&DCs, also found this specific two-way DVD mailpiece was likely to become damaged, jam equipment, and be missorted during automated processing.

Based on Engineering's conclusions about the PRM two-way DVD mailpieces, the Postal Service should revise the DMM to identify additional nonmachinable characteristics and physical standards for First-Class letter-size mail. If affected mailers choose not to redesign their two-way DVD mailpiece the Postal Service should impose nonmachinable surcharges of \$0.17 per piece.

Recommendations

We recommend the Acting Vice President, Pricing and Classification:

1. Coordinate with the Vice President, Engineering, on a Domestic Mail Manual (DMM) revision to the Nonmachinable Criteria DMM, Section 101.1.2 in order to identify additional nonmachinable characteristics and physical standards for First-Class letter-size mail with the same design and general characteristics of the mailpiece with the floppy leading edge.
2. Notify affected mailers that their two-way Digital Video Disk return mailpieces must be tested by Postal Service Engineering against the revised Nonmachinable Criteria DMM, Section 101.1.2 to ensure that the affected mailpieces are machinable, or be subject to the \$0.17 nonmachinable surcharge.

We recommend the Vice President, Customer Service:

3. Ensure that Business Mail Entry Unit employees begin collecting the \$0.17 per piece nonmachinable surcharge for all affected mailpieces if mailers do not alter their mailpieces.

**Management's
Comments**

In response to recommendation 1 management stated that in the last year 742 million pieces of Permit Reply Mail comprised only 0.77% of more than 96 billion pieces of First-Class Mail. Management agreed that machinability

standards need to be reexamined periodically, but cautioned that it must also consider how any DMM changes would affect all users of the mail. Additionally, management stated that the specific changes envisioned by this audit could have implications for other customers that are not yet properly understood. In addition to cost, the Postal Service is greatly concerned with the possible negative impact on affected customers if a DMM change results in a substantial price increase.

Concerning recommendation 2, management agreed to test DVD return mailpieces "against DMM standards when and if those standards are altered." In response to recommendation 3, management stated that "customers who mail pieces that do not conform to current DMM standards should pay the nonmachinable surcharge."

Management also had a comment regarding the following statement in Appendix A of our report: "We did not assess the reliability of the Corporate Business Customer Information System (CBCIS) as part of our audit; therefore, we do not base our conclusions or recommendations solely on information in the database." Management believes this statement conflicts with our use of CBCIS volume data in Appendix B.

We have included management's comments, in their entirety, in Appendix C.

**Evaluation of
Management's
Comments**

Although management agreed with our findings, their comments were not responsive to the findings and recommendations. Management did not identify any actions it will take to address the issues raised in this report.

Management's comments misquote our first recommendation as a suggestion that the DMM be revised to "identify additional nonmachinable characteristics and physical standards for First-Class Mail letter-size mail." Management omitted the rest of the recommendation, "*with the same design and general characteristics of the mailpiece with the floppy leading edge,*" and offered no indication that it would act to address the floppy leading edge problem identified in this report. Our recommendation to revise the DMM would not affect all First-Class mailers. It pertains only to mailpieces with a floppy leading edge, which sustain damage, cause jams in equipment, and

missort during automated processing. As for the impact on affected customers, rejecting similar mailpieces from other mailers, while allowing one mailer to continue using this mailpiece creates the appearance of favoring a large mailer over smaller ones.

Agreeing to test DVD return mailpieces against DMM standards "when and if those standards are altered," without having committed to altering the DMM, does not satisfy these recommendations.

Regarding recommendation 3, management stated that customers who mail pieces that do not conform to current DMM standards should pay the nonmachinable surcharge. Our recommendation pertained to "affected mailpieces," (mailpieces affected by the DMM revisions suggested in recommendation 1). In any case, management did not specify any action that it would take to collect the surcharge, under either current or revised DMM criteria.

The OIG disagrees with management's assertion of a conflict between information presented in Appendices A and B. Our statement in Appendix A means we did not conduct a review of data processing controls over the CBCIS. However, we tested the reasonableness of the CBCIS data. To test the reasonableness of projected return volume using CBCIS, we compared it to a separate projection using the mailer's internal forecasted customer base for March 2007 and the mid-point of its forecasted range of its customer base for December 2007.

The results of the two forecasts were nearly identical, giving us reasonable assurance that we could use the data obtained from the CBCIS to support the monetary impact calculation.

Note also that we estimated the unit cost of manual processing at \$0.08146. Management's response indicates that the unit cost is \$0.11291. If management is correct, our monetary impact calculation is very conservative.

**Additional Matter
Needing
Management's
Attention**

The DMM gives the Postal Service's complete mailing standards. Customers and Postal Service employees depend on the DMM for information and guidance about mailing. Further, the DMM attempts to give users all the information they need within a single section without referring users to different sections. Although one of the Postal Service's goals is to reduce the need to refer to another section, in some circumstances, a reference directs a user to a different section.

During our review of PRM guidance, we noted that clarification is needed to Section 9 of the DMM 507, which provides information on the PRM category and elements. Section 9.1.1 states that mailers must distribute PRM pieces as part of a discount First-Class mailing and not through any other means, but does not refer users to the PRM guidelines in DMM 200, *Discount Mail Letters and Cards*, and Section 230, *First-Class Mail*. Although it is the Postal Service's goal to reduce the number of instances a user is referred out of a section, we believe it is important to give users an out-of-section reference to the section on discount First-Class Mail. This reference, when added to Section 9.1.1, would give PRM mailers complete guidelines.

Suggestion

We suggest the Acting Vice President, Pricing and Classification, revise the DMM to include an out-of-section reference from the PRM section at 9.1.1 to DMM, Section 230, *First-Class Mail*.

APPENDIX A

OBJECTIVE, SCOPE AND METHODOLOGY

We initiated this audit based on concerns raised regarding potential preferential treatment given to a large DVD mailer. We determined whether PRM mailers' mailpieces are processed according to their approved classification and pricing.

To accomplish our objective, we performed a walk-through of the PRM process (tracing from permit to authorization to outbound to return of mail to automation compared to manual sorting). We also reviewed applicable regulations, manuals, instructions, and other supporting documentation relating to PRM, and its predecessor BRM, to evaluate internal controls and the reliability and validity of data.

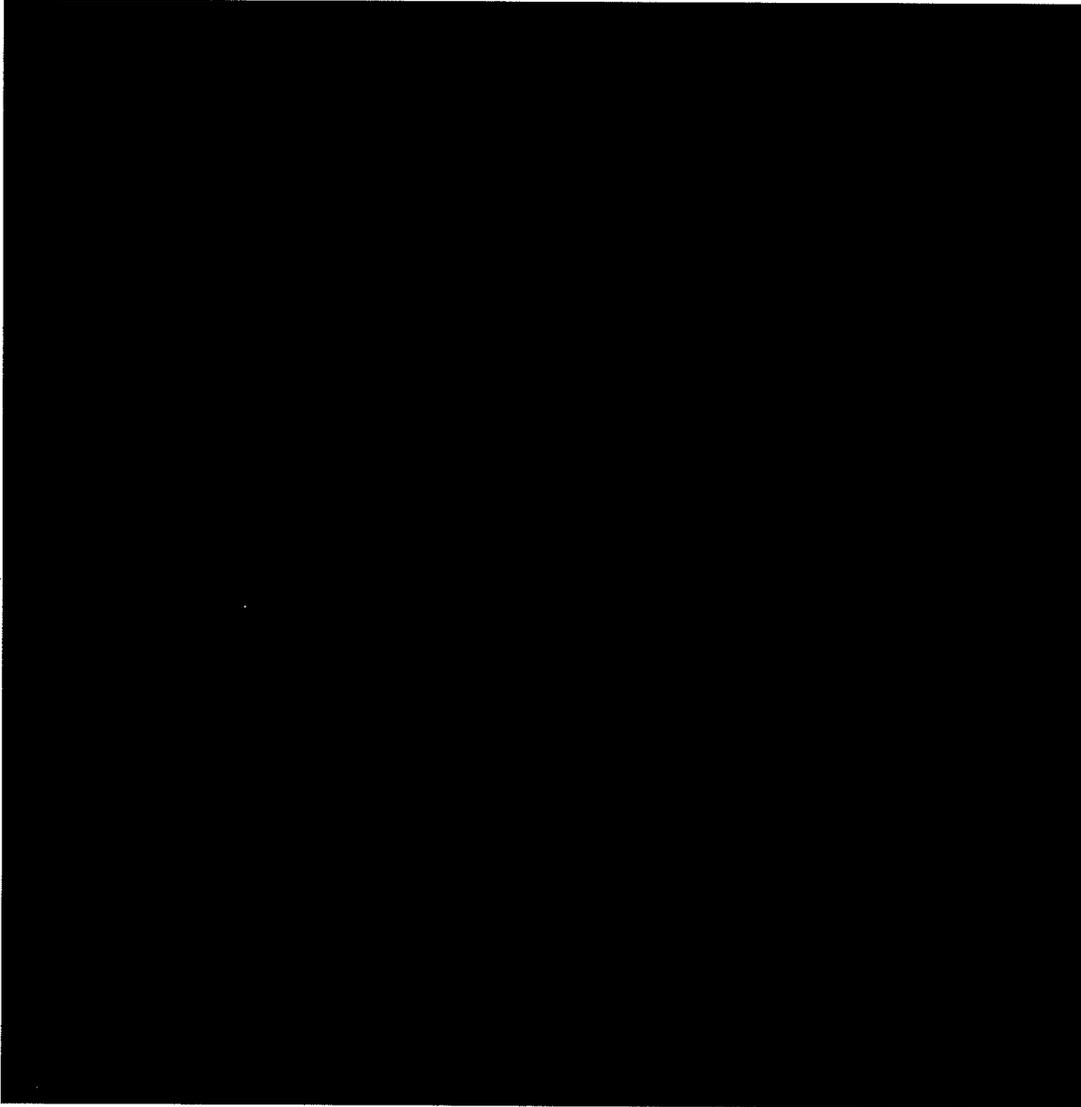
We interviewed Postal Service personnel for background information on DVD mailing approvals and processes. We interviewed Postal Service officials at the PCSC to determine their role in the process for mailers seeking approval to use PRM, especially those who mail automation-compatible DVD and CD mailpieces. We also interviewed industry officials for information on their distribution processes.

We visited 10 Postal Service facilities to observe the mailing of DVDs to determine how they were processed, and contacted an additional 14 Postal Service facilities by telephone to confirm their processing of DVDs.

We reviewed the November 2006 study, *USPS Mail Characteristics Study of DVD-by-Mail*, developed by an outside consultant for the Postal Service, to determine why the study was requested and how the Postal Service used the results.

We conducted this performance audit from September 2006 through November 2007 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management officials on August 15, 2007, and included their comments where appropriate. We did not assess the reliability of the CBCIS as part of our audit; therefore, we do not base our conclusions or recommendations solely on information in the database.

APPENDIX B



APPENDIX C. MANAGEMENT'S COMMENTS



October 25, 2007

TAMMY L. WHITCOMB
DEPUTY ASSISTANT INSPECTOR GENERAL FOR REVENUE AND SYSTEMS

SUBJECT: Review of Postal Service First-Class Permit Reply Mail
(Report Number MS-AR-07-DRAFT)

This report has been reviewed by management from USPS Engineering, HQ Marketing, and Operations. After a review of the findings, management agrees with some of the recommendations, but disagrees with a number of issues.

Recommendation 1:
Coordinate with Vice President, Engineering on a Domestic Mail Manual (DMM) revision to the Nonmachinable Criteria (DMM Sections 101.1.2 [and 201.2.1]) in order to identify additional nonmachinable characteristics and physical standards for First-Class Mail letter-size mail.

Response:
Management agrees that machinability standards need to be reexamined periodically. However, there are several factors that must be taken into consideration with respect to the instant audit. First, the Postal Service management must consider the magnitude of this decision. In the last year there were more than 95 billion pieces of First-Class Mail. Of this number, only 742 million were Permit Reply Mail which equates to 0.77% of all First-Class Mail. Before changing any criteria in the DMM, the Postal Service must consider how proposed changes would affect all users of the mail. The specific changes envisioned by this audit could have implications for other customers that are not yet properly understood.

Second, the cost is but one factor to consider when setting prices. In addition to cost, the Postal Service is greatly concerned with the possible negative impact on affected customers if a change in mailing standards results in a substantial price increase. Under the Postal Accountability and Enhancement Act (PAEA), it is even more important to consider all aspects of a product to properly price it within the marketplace.

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WASHINGTON DC 20260-6127
202-268-7243
FAX: 202-268-5773

-2-

Recommendation 2:

Notify affected mailers that their two-way [DVD] return mailpieces must be tested by Postal Service Engineering against the revised Nonmachinable Criteria (Domestic Mail Manual Section 104.1.2), in order to ensure the affected mailpieces are machinable, or be subject to the \$0.17 nonmachinable surcharge.

Response:

Management agrees that two-way DVD return mailpieces should be tested against DMM standards when and if those standards are altered. Pricing and Classification will work to ensure all Permit Reply Mail (PRM) customers are treated equally with advance notification in writing concerning any proposed changes in the DMM that will affect their mailpieces.

Recommendation 3:

Ensure Business Mail Entry Unit (BMEU) employees begin collecting the \$0.17 per piece nonmachinable surcharge for all affected mailpieces should mailers not alter their current mailpieces.

Response:

Management agrees with Recommendation 3 that customers who mail pieces that do not conform to current DMM standards should pay the nonmachinable surcharge.

Additional Comments:

Background:

The paragraph above the picture on page 1 describing a PRM customer and its company profile needs to be deleted or redacted from the report. It has no bearing on the report or findings of this report.

All PRM customers must apply for authorization through the district manager overseeing the BMEU where the permit imprint account is held. Permit holders must submit pre-production samples of PRM pieces for USPS approval prior to distribution.

Mailpieces are processed manually:

The Postal Service does handle PRM return pieces inconsistently throughout the entire country. This reflects variations by plant in volume and handling characteristics of diverse PRM return pieces which are produced by different PRM mailers, and in the mix of sorter models present at each plant. Plants use a mix of handling practices, including some automation designed to minimize costs consistent with service given their unique circumstances. Through an outside consultant, the Postal Service learned that all PRM designs contribute positive contribution.

Improve Notification Letter Provided:

Although the course of events is accurately portrayed in this section, it is to be noted that this use of First-Class Mail at the time was relatively new and no Standard Operating Procedures (SOP) were in place to include new customers in this service. Since this use has expanded, an SOP has been put into place.

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Appendix:

In Appendix A, it is stated, "We did not assess the reliability of the Corporate Business Customer Information System (CBCIS) as part of our audit; therefore, we base no conclusions or recommendations solely on the data contained in the database." This completely conflicts with Appendix B, where it states, "To determine Questioned Costs for two years in arrears, we multiplied \$0.08148 by 0.70 by the return volume for each month from the Postal Service's CBCIS for the period covering July 2005 through June 2007. We summed over the months to calculate \$41,080,608." For this reason, the CBCIS reliability statement needs to precede this entire section.

It is also to be noted that under the new law, USPS will only submit PRC cost methodology. Therefore, the difference in labor costs per piece between automated and manual processing for the Outgoing Primary Operation is 11.291 cents.

From PRC-LR-12, FCM Letters Costs Final.xls, Sheet SPINMACH COST

Outgoing Primary:
Automation 0.798 cents
Manual 12.081 cents
Difference 11.281 cents

VS109

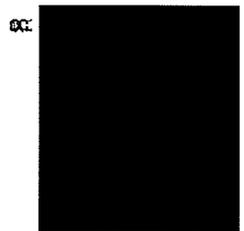


Vice-President, Customer Service



Vice-President, Pricing and Classification

VS110



cc:

- US-173
- US-051
- US-102
- US-003
- US-026
- US-160
- US-082
- US-153
- US-093
- US-117

PUBLIC



UNITED STATES
POSTAL SERVICE

DVD Mail
Fastest growing USPS product



US-071

US-110



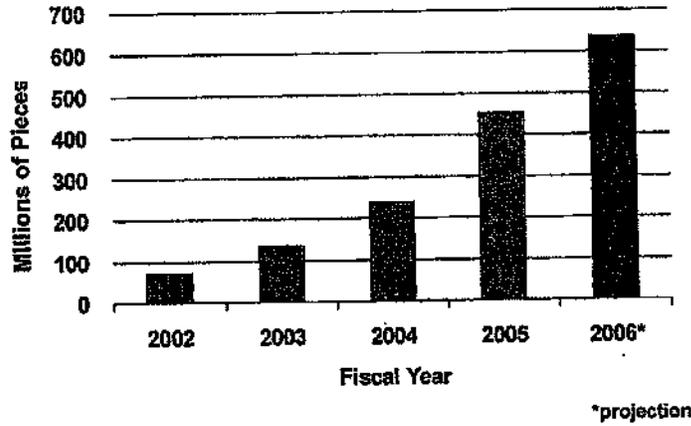
Background

- ▶ **FY05-06 focus on long-term solution to growing DVD volumes**
 - ◆ **Possible classification/price**
 - ◆ **Envelope design specifications**
 - ◆ **Standardization of acceptance procedures**
 - ◆ **Recommendation to study costs to determine the need for intervention**

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DVD mail volume



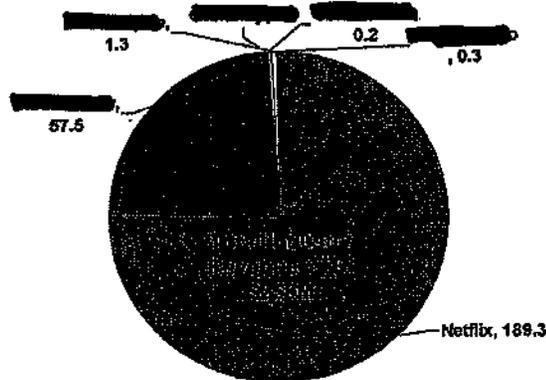
September 5, 2006

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3



Industry revenue



Top 10 FCM Mailers	
1	[Redacted]
2	[Redacted]
3	[Redacted]
4	[Redacted]
5	Netflix
6	[Redacted]
7	[Redacted]
8	[Redacted]
9	[Redacted]
10	[Redacted]

News items - all mail

September 5, 2006

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Netflix

- ▶ **Among the fastest growing postal customers**
 - ◆ **FY06: 50%; Last 5 years: +75%**
- ▶ **One of the largest USPS account**
 - ◆ **Top 5 in FCM Mailers**
 - ◆ **Ranked 12th in overall USPS revenue**
- ▶ **Still using informal combination of classifications and rates**
 - ◆ **Bypassed BRM call-out**
 - ◆ **Allowed pre-payment of return BRM piece**
 - ◆ **Previously waived BRM per piece fee**
- ▶ **Tendency to ignore/bypass USPS rules and regulations**
 - ◆ **Change to envelope design**
 - ◆ **Request of manual handling**

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Recent postal activity

- ▶ **Instituted SOP for BMEUs integrating new DVD mailers**
- ▶ **Introduced Permit Reply Mail**
 - ◆ **Codifies pre-payment of round trip**
 - ◆ **New mail markings allow better measurement**
- ▶ **Completed mail characteristic study**
 - ◆ **Survey of plant practices**
 - » **Online survey of 300 plants**
 - ◆ **Direct observation of mail processing at select locations**
 - » **25 site visits**

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PUBLIC

3

GFL0000734



What the mail characteristics study shows

- ▶ **Lack of consistency throughout country**
 - ◆ Substantial variation in handling practices
 - ◆ Culling occurs throughout mail processing
 - ◆ Concerted effort to manually separate return pieces by company
- ▶ **Blockbuster envelopes appear to be superior**
- ▶ **Local SOPs are in place or are being developed**
- ▶ **Number of return envelopes are not counted**
 - ◆ Measuring true productivity is difficult

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Mail characteristic study warrants follow-up

- ▶ **Lack of standardization makes normal costing approaches problematic**
 - ◆ Average variability assumptions
 - ◆ Delivery costs may be affected by scale
- ▶ **Effects on other mail difficult to assess without more rigorous observation**
- ▶ **Preliminary cost estimates**
 - ◆ Illustrate the need to standardize around best practices
 - ◆ Suggest that revenues exceed cost, but with a cost coverage substantially less than typical FCM
 - ◆ Probably understate "true" costs

mail processing

September 5, 2006

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8

PUBLIC

4

GFL0000735



Other mail characteristic study findings

▶ "Magic Machines"

- ◆ Tampa processes 100% of DVD mail on automation including AFCS
- ◆ Low breakage rate – 1.9%
- ◆ Contradicts Netflix's claims
- ◆ Replication on other equipment difficult
- ▶ El Paso has the most costly process with a higher breakage rate of 2%

September 5, 2006

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Recommendations - Short term

- ▶ [REDACTED]

Extreme
Variation in
costs (pt. to pt.)

September 5, 2006

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Recommendations - Long term

Same thing

[REDACTED]

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11

PUBLIC

The September 12 meeting began at 2 p.m. in Headquarters Conference Room 1P619.
 Next meeting: Monday, September 26, 2 p.m., Headquarters Conference Room 1P439.

Present	Members	Phone	Office
X	VS-152	202-268-	Pricing and Pricing Strategy
X	VS-012	202-268-	Mailing Standards
X	VS-023	703-292-	Enterprise Sales Solutions
X		202-268-	Finance, Business Evaluation
X		202-268-	Pricing Strategy
X		202-268-	Pricing Strategy
X		202-268-	Implementation and Outreach
X		202-268-	Operational Requirements and Integration
X		202-268-	Pricing Strategy
X		202-268-	Field Operations Standard Implementation
X		202-268-	Pricing
X		202-268-	P&DC Operations
X		202-268-	Business Mail Acceptance
		202-268-	Mailing Standards
		202-268-	Legal Policy and Rates
		202-268-	Legal Policy and Rates
		202-268-	Product Management
X		703-280-	Letter Mail Technology (Engineering)
		202-268-	Pricing
		703-280-	Flats Mail Technology (Engineering)
X		212-613-	Pricing and Classification Service Center
		202-268-	Operational Requirements and Integration
X		202-268-	Operational Requirements and Integration
Guests			
X		202-268-	Manager, Pricing Strategy

VS-156
 VS-027
 VS-030
 VS-033
 VS-063
 VS-066
 VS-068
 VS-074
 VS-154
 VS-084
 VS-077
 VS-112
 VS-157
 VS-125
 VS-159
 VS-131
 VS-136
 VS-137
 VS-155
 VS-151
 VS-110

Agenda

- Pricing, Product, and Mailing Standards Updates**
 - (a) Classification Strategy [redacted] - VS-110
 - (b) Postage Statement Workaround for Prepaid Returns [redacted] VS-023
- Engineering and Operations Update**
 - (a) Test of 60-Pound Stock DVD Envelopes [redacted] - VS-159
 - (b) Stiffness Detector Test [redacted] and [redacted] VS-151; VS-154
- Open Discussion Items**
 - (a) Barcode Readability
 - (b) Confirm
 - (c) Tabbing and Perforations

VS-023
In the interim, [REDACTED] plans to work with the Account Managers of the four authorized mailers to determine whether these mailers can update their presort software before new rates take effect next year.

► **Task: Postage Statement Software.** Coordinate work with the USPS Account Managers and the RDM mailers on voluntary addition of two line items for repaid returns.
Lead: [REDACTED]; **Due:** provide update at 9/26/2005 meeting.

Engineering and Operations Update

(a) Test of 60-Pound Stock DVD Envelopes

VS-159 [REDACTED] reported receiving last week the 5,000 sample prototypes with a modified paperweight of 60 pounds (offset) and slightly shortened length and height requirements of 7-1/2 by 5-1/4 inches. These prototype pieces weigh 1 ounce on the outbound and 0.93 ounce on the inbound.

VS-159 [REDACTED] ran 1,285 of those pieces (about 6 full letter trays) using the same first test protocol established for the extensive test completed this past April with five different envelope designs. This protocol requires running the pieces through the delivery point barcode sorter (DBCS) three times to simulate the outbound trip of RDM. [REDACTED] reported that the prototype pieces ran well with only five flyouts.

VS-159 For the second protocol, *VS-159* [REDACTED] ran 674 pieces converted from the 1,285 pieces into the return design and ran them through the Advanced Facer Canceler System (AFCS). Again the pieces ran well with only three pieces rejected during the cull. He held out 10% of the pieces for damage analysis. When *VS-159* [REDACTED] ran a portion of the remaining 600 pieces on the DBCS, there were numerous gate jams that forced the test to be suspended. The test will be continued on another DBCS.

VS-159 [REDACTED] estimated that completion of the machinability portion of this second test will occur by the end of September. Complete disc damage data should be available later in October.

VS-159 [REDACTED] also reported that he has not received the promised samples from the two large RDM mailers based on the modified new specifications of smaller size and lighter paperweight.

Based on some comments from the field about needing to test RDM envelopes on the Carrier Sequence Barcode Sorter (CSBCS), [REDACTED] plans to include some test runs on that equipment too. The CSBCS is found in small delivery units and has only a limited number of bins (a smaller "footprint" than that on the DBCSCs). The mail for the CSBCS must first be sorted to the carrier by a delivery point barcode sorter before being passed off to the delivery unit or small post office for processing on the CSBCS. Once this has taken place, the CSBCS can sort the carrier route mail into carrier route sequence, generally with three passes. As a result, RDM could actually be sorted at least three more times before delivery, increasing the exposure to repetitive stress to the optical discs contained within the mailpieces.

► **Task: New Envelope Testing.** Provide update on test.
Lead: [REDACTED]; **Due:** provide update at 9/26/2005 meeting.

(b) Stiffness Detector Test

VS-151 [REDACTED] reported that a group from Operations reviewed the AFCS operation at the Merrifield VA plant and distribution center (P&DC) at the end of August to run informal tests using two different AFCS machines: AFCS 1 (with a single-pass reject rate of 2 percent) and AFCS 5 (with a single-pass reject rate of 4 percent). Unlike AFCS 1, AFCS 5 tends to reject all envelopes containing CDs and DVDs.

VS-151 [REDACTED] mentioned that many of the rejects are typically machinable pieces rejected for reasons other than nonmachinability. The rejected pieces often are pieces riding too high in the belts or arriving as doubles (two pieces at the same time). Plants cull through the rejected mail for flats, thick pieces, and rigid pieces, then dump the remaining pieces back into the feed system to attempt to process those pieces again through the AFCS.

VS-151 [REDACTED] noted that some plants have semi-automated systems for transporting the recycled rejected mail back to the AFCS. This may be a source of additional damage to the optical discs as they could pass

Round-Trip Disc Mail (RDM) Work Group Minutes: 12 September 2005

around on this transport belt to the AFCS and back several times. Some plants are also working the rejected mail on older Mark II facer-canceler machines, another potential source of additional damage.

The group collected about 320 accumulated rejects from the AFCS 5, representing about a 4% reject rate out of 8,000 pieces processed on that machine. The rejects were recycled twice on the AFCS 5 to reduce the number of rejects to pieces that truly would be rejected by the AFCS 5 based on the characteristics of the pieces themselves rather than other processing factors.

From the 320 pieces, 20 pieces (including 17 pieces containing DVDs) were culled manually to avoid damage to the pieces. Of the remaining 300 rejects, the AFCS 5 processed all but 35 (the true rejects) after the initial pass and the two recycling passes. These 35 pieces were then run on the more tolerant AFCS 1, resulting in only 14 rejected pieces.



►Task: No further action at this point.

Open Discussion Items

(a) Barcode Readability

VS-154

confirmed that the wide field of view cameras now installed on letter-sorting machines provide more tolerance for positional barcode skew on letters, whether POSTNET delivery barcodes or PLANET Code barcodes for Confirm. As a result, the hand-applied outgoing mailing labels used by the RDM mailers no longer seem to create readability problems now processed on the upgraded equipment.

►Task: No further action at this point.

(b) Confirm



Because Confirm relies on passive scanning, its usage would not add appreciably to Postal Service costs during the experiment. is currently exploring how to combine mailer and Postal Service requirements if the mailer wished to pay the subscription fee for Confirm. If the mailer did not wish to pay the subscription fee, the Postal Service would not share detailed data with the mailer.

VS-030

►Task: Confirm. Continue research on application of Confirm to the RDM experiment.
Lead: ; Due: provide update at 9/26/2005 meeting.

(c) Tabbing and Perforations

Because of the added expense of tabbing, one of the large RDM mailers would like the Postal Service to revisit the tabbing requirement in the proposed RDM envelope specifications. The same mailer has also asked that the Postal Service propose standards for perforation strength on envelope design.

USPS Engineering has limited expertise in perforation specifications or requirements. Perforations represent a compromise between strength and ease of use. Envelope manufacturers should assume responsibility for perforation design. Testing would expose inadequate perforations. Proposed RMD mailpieces with perforated features incapable to handle the rigors of automation processing would not be approved.

►Task: Tabbing and Perforations. Research existing industry standards on perforation and review tabbing rule.
Lead: and ; Due: provide update at 9/26/2005 meeting.

Respectfully submitted,
Pricing Strategy

VS
152

VS-154

The September 26 meeting began at 2 p.m. in Headquarters Conference Room 1P439.
 Next meeting: Monday, October 17, 2 p.m. Headquarters Conference Room 1P439.

	Present	Members	Phone	Office
US-152	X		202-268-	Pricing and Pricing Strategy
US-012	X		202-268-	Mailing Standards
US-023			703-292-	Enterprise Sales Solutions
US-156			202-268-	Finance, Business Evaluation
US-027	X		202-268-	Pricing Strategy
US-030			202-268-	Pricing Strategy
US-033			202-268-	Implementation and Outreach
US-063			202-268-	Operational Requirements and Integration
US-066	X		202-268-	Pricing Strategy
US-068			202-268-	Field Operations Standard Implementation
US-074	X		202-268-	Pricing
US-154	X		202-268-	P&DC Operations
US-084			202-268-	Business Mail Acceptance
US-077			202-268-	Mailing Standards
US-112			202-268-	Legal Policy and Rates
US-157	X		202-268-	Legal Policy and Rates
US-126	X		202-268-	Product Management
US-159	X		703-280-	Letter Mail Technology (Engineering)
US-131			202-268-	Pricing
US-136			703-280-	Flats Mail Technology (Engineering)
US-137	X		212-330-	Pricing and Classification Service Center
US-155	X		202-268-	Operational Requirements and Integration
US-151	X		202-268-	Operational Requirements and Integration
Guests				

Agenda

1. Pricing, Product, and Mailing Standards Updates
 - (a) Teleconferences with RDM Mailers
 - (b) Postage Statement Workaround

2. Engineering and Operations Update
 - (a) Test of 60-Pound Stock DVD Envelopes

Discussion Points and Tasks

VS-027

VS-066

Pricing, Product, and Mailing Standards Update

(a) Teleconferences with RDM Mailers

VS152

_____, _____, and _____ reported on the series of teleconferences that Pricing Strategy conducted from September 21 through September 26 with Netflix, Blockbuster, _____, the _____, and _____.

NF-010

_____, who also participated, coordinated the schedules for the associated account managers or sales specialists: _____ (for Blockbuster), _____ (for Netflix), and _____.

GF-001

Other Postal Service participants included _____ and _____. We are including notes from those teleconferences for reference.

BB-009

VS-151

Netflix

VS-110

VS-157

VS-153

September 21 Teleconference

Netflix participants:

- _____, Chief Operating Officer - NF-013
- _____, Senior Director, Postal Operations - NF-016
- _____, Attorney
- _____, Attorney

VS-110

_____ manager of Pricing Strategy, opened the teleconference by presenting the proposal, including the pricing and classification, for a three-year experimental classification for Round-trip Disc Mail (RDM). He explained that the experiment would allow the Postal Service and the mailing industry—including envelope manufacturers and disc manufacturers—to determine and assess design criteria that could possibly lead to a fully automation-compatible envelope for two-way mailing that weighed 1 ounce or less and protected the disc. With extensive testing and experimentation, we would be in a better position to conclude whether such a design with a 1-ounce ceiling were economically and physically feasible.

The experiment would also allow the Postal Service to collect sufficient processing data through the use of Confirm for costing analysis and subsequent pricing design based on the unique mailpiece characteristics of RDM and how the mail is handled in a more automated mailstream. _____ then detailed the major pricing and classification requirements including the testing and certification of participating mailpieces.

VS-110

_____ from Netflix responded that this proposal was a good start but that he did not see how it would solve the situation for Netflix in regard to costly disc damage and breakage. He presented these points:

NF 013

NF 013

- Automation. _____ pointed out that the Netflix outbound pieces were prepared and handled as automation letters, with few processing problems either at the Netflix fulfillment sites or at the Postal Service processing and distribution centers (P&DCs).

We agreed that the outgoing pieces machined well but our concern revolved around the return pieces with the floppy leading edge. These pieces jam processing equipment and therefore often require manual handling. For efficiency and cost avoidance, we believe that modifying the current Netflix envelope would allow better processing. The experiment would give us, Netflix, and others in the mailing industry the option to explore various design configurations and paper weights and types for their individual mailpieces.

NF013

- 1-Ounce Hurdle and Temporary Classification. [REDACTED] expressed concern that the 1.3-ounce ceiling proposed for the experiment might not become permanent, returning everyone to the current struggle with constructing efficient First-Class Mail envelopes that weigh 1 ounce or less. He believed that we would simply be deferring the "additional ounce" issue for three years but only on a temporary basis. He added that even permitting the additional weight did not protect the disc from exposure to damage by the Advanced Facer-Canceler System (AFCS). Both he and [REDACTED] attributed the processing of return RDM pieces on the AFCS as the major source of disc breakage.

NF-016

We mentioned that we also shared concerns about disc damage. Again, we emphasized that the experimental classification would provide not only a window of opportunity for testing envelope designs and developing workable specifications but that it also gave us a methodical way to collect data for overcoming the damage issue as well as developing an equitable pricing structure for this type of mail that continues to grow in volume and diversity.

NF013

- Machinability Regulations. [REDACTED] voiced concern about the proposed machinability criteria and regulations that letter mail containing discs must meet in order to avoid the payment of the nonmachinable surcharge for letters. He did not believe that these proposed criteria were sufficiently flexible to allow mailers whose designs did not meet those criteria to be tested for machinability. He also stated that publishing new regulations would force Netflix and all other two-way DVD and CD mailers to participate in the experiment. He also reminded us that in reality two mailers represent 98% of the current RDM mailstream.

We responded that machinability of such mail was becoming a more serious operational issue as more mailers began adopting the two-way mailing concept and other mailers began designing one-way advertising letter mail containing discs. Machinability is no longer an issue just for two-way DVD or CD envelopes; it is turning into an issue for all letter envelopes containing discs.

We stated that finding machinable designs is becoming a long-term situation. Our research, for example, has revealed that the DVD as a viable medium will not peak until 2013. Finding a customer and operational solution is critical. Mailers and mailpiece designers are seeking guidance on designing machinable disc pieces. We maintained that establishing clear machinability regulations now represents a responsible way to guide those mailers in designing appropriate mailpieces.

We also replied that Netflix had several other options to consider such as using letter-size Standard Mail for outgoing pieces or considering using flat-size pieces for both outgoing and incoming return mail. We did not intend or foresee forcing anyone to participate in the experimental classification. We assured Netflix that participation would be a voluntary choice.

We acknowledged that currently two mailers dominate the DVD mail-order rental market. Even so, with low financial barriers for entry into this market and, as viewed by others, appealing profit margins from the business model Netflix pioneered, we predicted that more mailers will launch similar DVD and CD rental businesses. As a point of reference, we noted that our Sales organization has already identified 20 new mailers actively engaged in similar mail-order enterprises.

- Planet Codes and Special Rate Markings. Tom believed that using Confirm was a beneficial idea as long as the envelope designs worked on automation equipment. Provided that the marking requirements were similar to the current markings, Netflix did not object to the need and value of clearly identifying the pieces during the experiment.

NF013

We assured [REDACTED] that the markings were simple: changing the wording on the Business Reply Mail (BRM)-formatted envelope and adding the classification marking in the indicia on the outgoing pieces.

Round-Trip Disc Mail (RDM) Work Group Minutes: 26 September 2005

NF-013

then enumerated several other points critical to Netflix (all of which focused in some way on costs):

NF-013

NF-013

- Breakage. again emphasized that the ultimate solution that would meet the business needs of Netflix would entail devising a system—such as the Netflix proposal several months ago presented to senior postal operational executives—to reject the return pieces before they entered into the AFCS. mentioned that in the Netflix proposal, the Postal Service would install cameras in the opening operations that would detect a special barcode on Netflix pieces and then shunt the specially barcoded pieces aside. He noted that even the postal processing system counted 1,000 AFCS units nationwide, Netflix would be willing to fund part of the installation costs. Netflix also reported privately testing envelope prototypes with Siemens as that corporation develops upgrades for the AFCS.

We mentioned that the Postal Service had already conducted an informal test for modifying the stiffness detector on the AFCS so that it could reject letter mail containing discs. We pointed out, however, that employing such processes, while eliminating part of the source of damage, did not eliminate other sources of damage such as the delivery point barcode sorters (DBCSs). We affirmed that we are also striving to find an economical and customer-focused solution within our current operational environment.

NF013

- New Envelope Designs. stated that it was not economically viable for Netflix or any other mailer to convert to a series of ever-evolving envelope designs. Netflix has spent millions of dollars updating its fulfillment operations using its current envelope design. Making extensive changes to that envelope design would thus require costly retooling of its automated systems. We replied that Netflix would not need to modify extensively its current envelope design other than using a stiffer paper and repositioning the disc. In fact, we mentioned that Engineering had tested some stiffer Netflix designs weighing 1.2 and 1.3 ounces last year that machined well on our letter-sorting equipment.

At the conclusion of the teleconference, Netflix requested a second teleconference for the following Monday, September 26, to discuss further the proposed experimental classification.

September 26 Teleconference (Follow-Up)

Netflix participants:

- Chief Operating Officer NF 013
- Senior Director, Postal Operations NF-016
- , Attorney
- , Attorney

Before we started the discussion on the proposed experimental classification, we mentioned that the Postal Service was working with Netflix to update the postage statement data to reflect the new May 2005 edition of Form 3601-R for First-Class Mail. We explained that using this new edition would help us account for the return mail in a consistent way and benefit Netflix by correctly reporting its actual volumes and postage costs.

NF-013

AFCS Number 1 Issue. repeated the same message from the previous teleconference: the overriding issue for Netflix concerned disc damage on the AFCS. The experimental classification with its machinability criteria would not help Netflix overcome this issue. If Netflix mail were to be processed on the AFCS as proposed in the experiment, he estimated that it would adversely affect postal revenue and compel Netflix to transfer nearly two-thirds of its marketing funds to the purchase of replacement discs. At the same time, breakage rates under a fully automated environment could cost Netflix a million dollars over the next five years. By transferring projected marketing funds to disc replacement, Netflix might possibly lower postal revenue by \$1.3 to \$1.4 billion over the same five-year period because of slower growth in subscriber enrollments and associated mail volumes.

NF 013

Testing conducted by Netflix tends to indicate that the breakage rate on the AFCS is nearly four times as much as damage on the DBCSs. pointed out the number of bullwheels on the AFCS around which the mail must pass exceeds the number on the DBCS and that the severity of the turn angles on the AFCS diverter gates tends to be more severe than those on the DBCS. He believed that part of the solution lay in automating the culling process or modifying the current AFCS upgrade. also

NF 013

mentioned that Netflix had been testing mail with [REDACTED] for possible suggestions on modifying the equipment.

We mentioned that one possible solution was designing pieces that traveled out as letter-size pieces, but were then reconfigured for the return as flat-size pieces, bypassing the AFCS. Although Netflix expressed interest in this novel concept that offered an automated handling process, Netflix did not want to pay the additional \$0.12 surcharge for First-Class Mail flat-size pieces weighing 1 ounce and less. Under the experiment, however, the pieces would weigh more than 1 ounce and therefore would not be subject to the surcharge. We also mentioned that, as other RDM mailers had recommended, perhaps only part of a participating mailer's mail be part of the experiment. Even though Netflix had questioned us about this very concept before, we replied that several other mailers felt that only partially participating might be prudent for their business.

US-153 [REDACTED] and [REDACTED] stated that there were many more steps involved than simply pulling the mail at the AFCS operations. Each of these steps adds certain labor costs. [REDACTED] said that what the Postal Service needed was a machinable piece that was handled on all letter-sorting equipment and that would be easily sorted into bins on the DBCS and then collected for delivery to the customer. US-153

Netflix responded that the Postal Service had tested and approved the machinability of their return current mailpiece in 2002. [A letter was issued from Mailing Standards stating that the pieces were not completely automation-compatible but that they were not subject to the nonmachinable surcharge under existing *Domestic Mail Manual* standards.]

We responded that we believe that minor changes have been made to the original envelope design; the return portion does not process well on equipment because of the floppy leading edge. We also added that all machinability criteria need to be reviewed and revised, possibly in conjunction with the next omnibus rate case as done with the R2000-1 rate case.

NF013 NSA and Volume Discounts. [REDACTED] the external lawyer engaged by Netflix, suggested an NSA in which Netflix would not receive postage discounts as such, but simply continue to receive the special handling in our opening operations for the return mail. [REDACTED] added that Netflix might consider a small additional charge for the special handling. The Netflix attorney [REDACTED] then added that perhaps Netflix would be willing to pay a higher rate of \$0.01 per piece for the manually culled return pieces. [REDACTED] then mentioned the idea of volume discounts, stating that the Postal Service Governors had the authority to grant volume discounts. NF013

NF013 [REDACTED] mentioned that the Postal Service should see how much Netflix is saving the company by using caller service and managing a large number of expedited plant loads via Netflix transportation. He believed that those savings should be considered in allowing the special service that the Postal Service provides in culling Netflix mail before it reaches the AFCS. He also recommended our looking at a niche classification that was volume sensitive. Once a mailer reached a certain volume level, the mailer could then have special handling.

We replied that an NSA could certainly be reconsidered. Any changes in pricing, however, would need to be filed with the Postal Rate Commission. It was not something we could unilaterally do. However, we reminded Netflix again that it is not unique in the use of caller service or providing transportation. We mentioned that other companies, particularly large banks and other financial institutions, have been long time users of caller service and lock box drop shipments. In fact, we reminded Netflix that those companies willingly paid for those services for the value of receiving return mail more rapidly.

We also explained that Netflix was looking at bottom-up costing based on current processes that could change over the course of time. In regard to a niche classification that was volume sensitive, we replied that the issue is not volume but machinability. For example, if a small-volume mailer produced nonmachinable pieces that jammed and damaged equipment because that mailer did not receive special handling, then we have accomplished nothing. In fact, mail from the small-volume mailers could become more problematic because it is not readily identifiable. A jam is a jam, regardless of the mail owner. In addition, we explained that the Postal Service had the responsibility of working with all mailers, large-volume or small-volume.

NF-013 [REDACTED] appreciated the ongoing work by the Postal Service to find a workable solution, but he felt the ball was back in our court. We explained that we would relay the information to Mike for further discussion and development.



GameFly

September 22 Teleconference

GF-002

We updated GameFly about the proposed experimental classification. Although GameFly prepares and mails its pieces as flats, [redacted] stated that GameFly would be willing to participate in the experiment for part of its mail. He said that doing this would allow GameFly to validate the viability of letter-size mail for its product.

GF-002

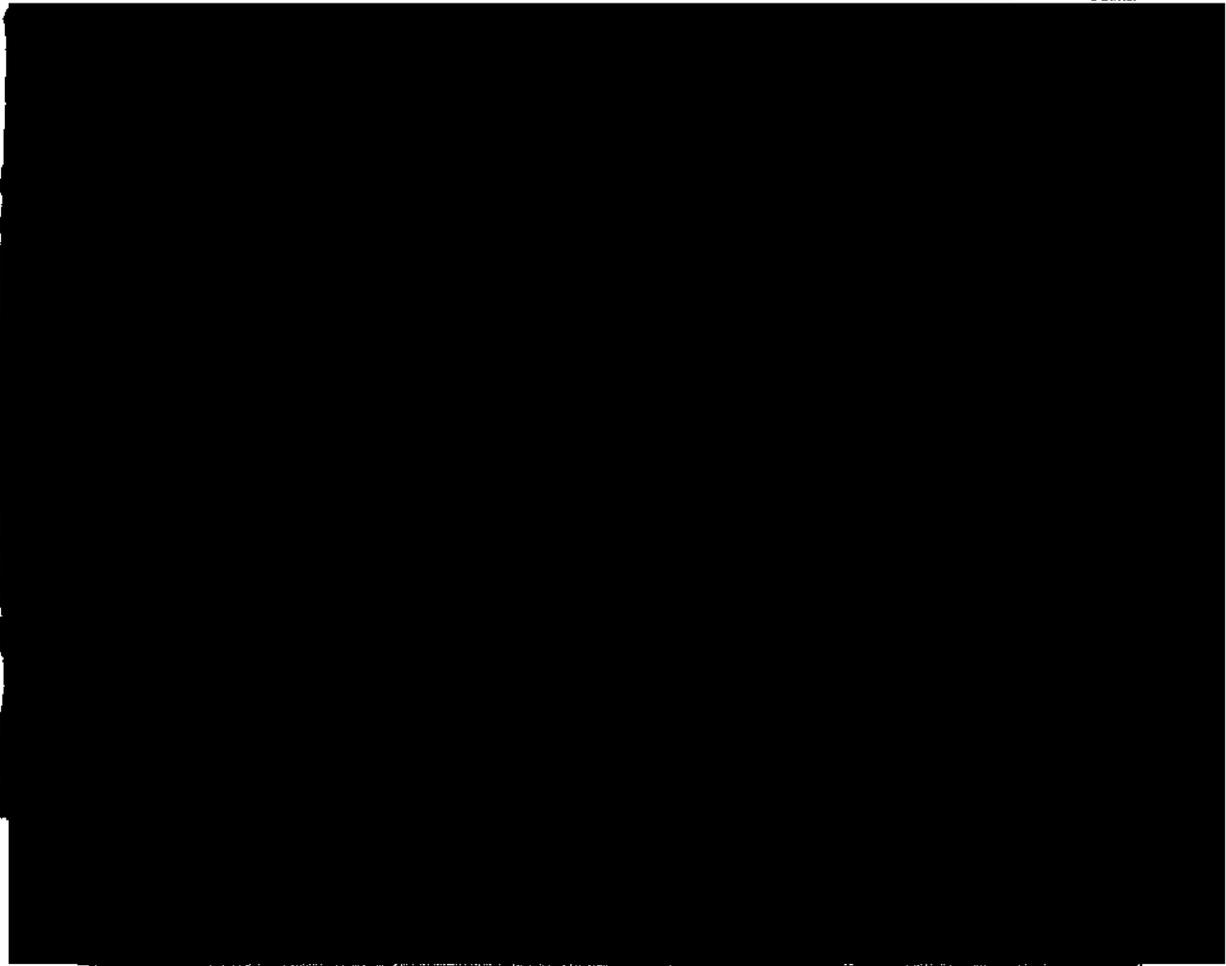
We explained that, because an experimental classification would require data collection, we would need to reserve one or two numbers available on the PLANET Code used on the Confirm system for both the outgoing and the incoming return pieces. GameFly already uses Confirm for order fulfillment because it has only the one distribution hub in Los Angeles. [redacted] mentioned that he continued to have some problems with the proper scanning of the PLANET Codes on the return pieces. We agreed to help GameFly isolate ZIP Codes with poor scanning performance and work with the various P&DCs to provide direction on how GameFly pieces are to be processed on flat-sorting equipment.

► **Task:** Confirm Scanning. Analyze pattern of scans and issue a standard operating procedure (SOP) to the field explaining how to process GameFly pieces.
Lead: [redacted] **Due:** update at 10/17/05 meeting.

VS-154

Discussion Points and Tasks

Pricing, Product, and Mailing Standards Update



(b) **Postage Statement Workaround for Prepaid Returns**

PO-001

VS-023

er worked with (PostalOne! team) to draft and issue instructions to the business mail entry units and field acceptance personnel on procedures for correctly entering the prepaid returns part of the RDM mailings presented by the four authorized companies. Operations Integrations Specialists and the Account Managers for the RDM mailers will also receive the information. The final instructions was issued on September 14 through the electronic Newsletter.

Currently, use of the May 2005 edition of the postage statement PS Form 3600-R remains optional for RDM mailings, creating several problems for proper data collection and volume and revenue reconciliation. Until new postage rates and fees are adopted in early 2006, firms that develop presort software (which also generates postage payment documentation) are not inclined to update their programs used by these mailers.

Blockbuster

September 23 Teleconference

BB-016

Blockbuster participant: [REDACTED]

BB-016

We updated Blockbuster about the proposed experimental classification. [REDACTED] responded that Blockbuster agreed with trying to find an automated solution to the round-trip mail. He said that Blockbuster would want to include its retail store mail in the experiment along with the mail from the distribution centers. He stated that Blockbuster was still seeking a simple postage payment system for the retail stores.

BB-016

Disc Damage. [REDACTED] expressed concern about damage to the discs in the current Blockbuster design. He reported an overall damage rate of 3% with the newer envelope designs, with about a 2.8% rate for pieces mailed from the distribution centers compared with 5% for pieces mailed from the retail stores.

We replied that mail from the retail stores goes through the culling operations twice, on the outbound and on the inbound. Mail presented from the distribution centers goes through those operations only once, on the inbound. We also conjectured that mail deposited into collection boxes could be subject to damaged from heavier mailpieces also being deposited into the boxes.

BB-016

Confirm. [REDACTED] mentioned that Blockbuster was currently experimenting with using Confirm on the return pieces.

We stated that we were pleased that Blockbuster saw the business value in Confirm. We explained, however, that because Confirm would be a required feature of the experimental classification for data collection, that we would need to claim one or two numbers available in the PLANET Code for identifying envelope designs.

Postage Payment. The Blockbuster business model leverages inventory in its distribution centers with inventory in its chain of franchised retail stores. This combination of distribution centers and retail stores has now created an urgent need to find a centralized postage payment system. About 1,000 of the 4,500 stores nationwide currently handle online orders received from the order center in Dallas, and that number continues to climb weekly as more stores are added to the online program.

BB-016

[REDACTED] reported that the retail stores process 30 to 120 orders a day, affixing First-Class Mail postage to the outgoing and the incoming return pieces. We mentioned to [REDACTED] that our Business Service Network (BSN) records indicate many start-up problems with Blockbuster mailpieces not bearing postage found in collection boxes.

BB-016

BB-016

[REDACTED] hoped that the Postal Service could devise a satisfactory postage payment system to streamline payment processes for Blockbuster and allow the retail pieces to participate in the proposed experimental classification.

We replied that we would form an ad-hoc group to revisit the issue and work through the national account manager to keep Blockbuster updated. After we completed a list of requirements, we would then present them to Blockbuster for review and comment.

► **Task:** Centralized Imprint Postage Payment. Form ad-hoc team to restudy and develop requirements for establishing a centralized imprint postage payment system for retail mail.
Lead: [REDACTED] **Due:** update at 10/17/05 meeting.

US-152

September 23 Teleconference

Butler participant: [REDACTED]

We updated [REDACTED] about the proposed experimental classification. We reminded [REDACTED] that, because nothing has been approved at this stage by our executive committee or the board of governors, everything we discussed was subject to change and, at the same time, confidential. [REDACTED] responded that he agreed with the general direction and purpose of the proposed experimental classification but had concerns about the following features:

- Weight. [REDACTED] recommended that the ceiling should be 1.5 ounces, not 1.3 ounces. He believed that two-tenths of an ounce could be critical in achieving the optimal machinable piece that machined well and protected the disc from damage on either the DBCS or the AFCS. He said that during the experiment that we might find that 1.3 ounces do not suffice to reach our goal of the ideal piece, creating a similar situation now found with the 1-ounce hurdle. We responded that we would review this comment. One solution would be the elimination of the weight criteria as long as dimensional criteria were in place to restrict overall possible weight.
- Letter Dimensions. [REDACTED] recommended that we revisit the dimensional requirements and start with the maximums for length and height now permitted for automation letters, while maintaining the 1/8-inch maximum thickness. Different dimensions would require different paper weights to achieve the stiffness and machinability required for these pieces. [REDACTED] also said we need to revisit the concept of a letter outbound piece with a flat-size inbound piece. That recommendation should be included with our experiment.
- Testing and Certification. [REDACTED] agreed that the Postal Service should institute a testing and certification regimen. He believed that we should offer mailers three options: (1) prepare mailpieces according to printed requirements (those requirements should guarantee that a disc mailpiece would travel through all automated equipment easily and with minimal damage; those requirements however, should not be construed to guarantee creating a piece weighing 1 ounce or less); (2) purchase commercial envelopes already tested and certified by the Postal Service; or (3) request testing of pieces that do not meet printed requirements, at least for pieces designed under the experimental classification. We replied that such a three-option arrangement would provide flexibility, but that we believed all pieces not already certified should require testing and certification until we had accumulated sufficient testing and design data to ensure that published standards would always lead to an automation-compatible piece.
- Printed Customer Instructions. [REDACTED] believed that, in addition to the disc and protective sleeve, we should permit a separate slip containing printed customer instructions for reconfiguring the return piece. We responded that instructions could be printed on part of the envelope.
- We mentioned that we were concerned about the addition of material that could lead to pressure to include advertising material to offset the damage to discs.
- Confirm. [REDACTED] believed that requiring Confirm would place an unnecessary financial burden on smaller mailers. We replied that participants would not pay for Confirm unless they wanted the data.
- Barcoding. [REDACTED] firmly insisted that all pieces, whether nonpresorted or presorted, should bear the appropriate barcode. He believed that we could make that requirement under an experimental classification. We replied that such a requirement had been previously discussed; under the experiment, we believed that we could impose it.
- Caller Service. [REDACTED] believed that we should provide flexibility in this requirement for small-volume mailers.

We replied that although the cost of caller service might seem burdensome, that its use eliminated delivery and some transportation costs for the return pieces. This elimination of costs represented a compromise on allowing pieces over 1 ounce.

► **Task:** [redacted] Recommendations. Discuss issues with RDM team.
Lead: [redacted] **Due:** discuss at 10/17/2005 meeting.

US-152

(b) Postage Statement Workaround for Prepaid Returns

US-023

[redacted] contacted all the account managers handling RDM mailers. So far the largest RDM mailer has begun the process of modifying its software and output to accommodate the new data items on PS Form 3600-R. A letter will be sent from Business Mail Support advising RDM mailers of the availability of the new form and how the Postal Service will work with them. [redacted] from PostalOne! is now working with [redacted] the national account manager for Netflix, on getting the software used by that company updated to reflect the new data items.

PO-001

NF-010

► **Task:** Postage Statement Software. Continue coordinating work with the USPS Account Managers and the RDM mailers on voluntary addition of two line items for repaid returns.
Lead: [redacted] **Due:** provide update at 10/17/2005 meeting.

PO-001

Engineering and Operations Update

(a) Test of 60-Pound Stock DVD Envelopes

US-159

[redacted] updated the work group on his ongoing testing of the prototypes with a modified paperweight of 60 pounds (offset) and slightly shortened length and height of 7-1/2 by 5-1/4 inches. These prototype pieces weigh 1 ounce on the outbound and 0.93 ounce on the inbound.

US-159

So far, [redacted] has tested nearly 2,000 of the 5,000-piece sample lot, running the pieces through the full cycle and extracting 10% samples after various individual machine runs. [redacted] has also provided Siemens with 300 pieces for testing on the MLR (Multi-Line Replacement) of the Advanced Facer-Canceler System (AFCS). The Siemens test could reveal some additional insights into damage caused by the belts and the deflector gates on the AFCS. Approximately 100 sample were returned by Siemens to Engineering through the mail. [redacted] plans to complete his tests by the end of next week and begin tabulating the damage.

US-159

US-159

US-159

[redacted] reported that the shorter pieces are producing more flyouts on our processing equipment and the lighter paper is degrading more rapidly in processing, leading to more paper breakdowns and "foldovers." The number of "doublefeeds" and jams is also increasing over the previous heavier weight prototypes tested at the beginning of the year. Mailpiece length appears to be a critical variable in designing two-way DVD letter pieces for successful processing. Paperweight and paper characteristics still require more analysis.

Disc damage is now becoming the number one issue with RDM mailers as more mail is processed on equipment. For our purposes, a damaged disc is one that is either broken (separated into pieces) or shows any crack that would prevent proper operation, radiating from the hub (center) of the piece toward these edges.

► **Task:** New Envelope Testing. Continue testing and analysis.
Lead: [redacted] **Due:** provide update at 10/17/2005 meeting.

US-159

Respectfully submitted,
Pricing Strategy

\$200 million opportunity
15 cents

Netflix ⇒ 6 month conversion to PRM

UNITED STATES POSTAL SERVICE

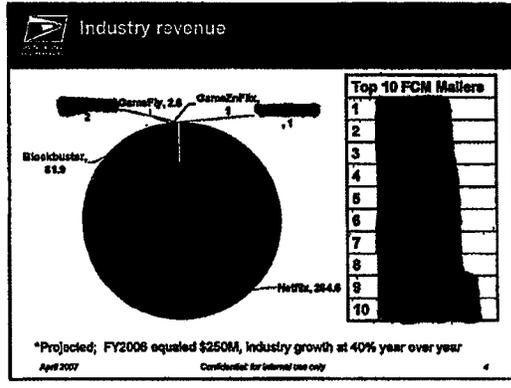
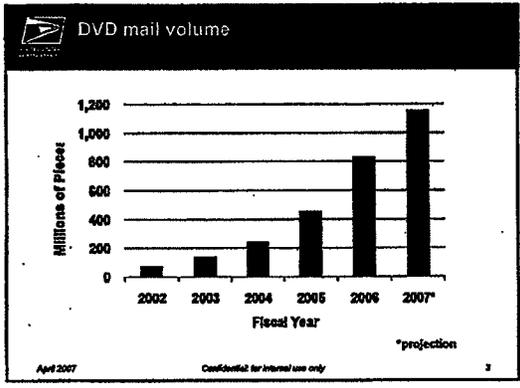
DVD Mail
Fastest growing USPS product

Mike Plunkett, A/VP Pricing and Classification

Background

- FY07-08 focus on long-term solution to growing DVD volumes
- Possible classification/price
- Envelope design specifications
- Standardization of acceptance procedures
- Recommendation to study costs to determine the need for intervention

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Netflix

- Fastest growing
 - FY07: 43%; FY08: 50%; Last 5 years: +75%
- One of the largest USPS accounts
 - Top 5 in FCM Mailers
 - Ranked 10th in overall USPS revenue
- Unique classification - Permit Reply Mail (PRM)
 - Allowed pre-payment of return piece at entry
- Make changes as they see fit
 - Change to envelope design
 - Request of manual handling

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Blockbuster

- Fast growing
 - FY07: 40%; FY08: 45%
- One of the largest USPS accounts
 - Top 10 in FCM Mailers
- Using combination of postal services for fulfillment
 - Central distribution centers
 - Unique classification - Permit Reply Mail (PRM)
 - Retail locations
 - FCM Stamps
- Make changes as they see fit
 - Change to envelope design
 - Request of manual handling

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PUBLIC

Fluts Summit

- Use final rate case
- Christensen study may force PRM to lock up price

GFL0000844

 Recent postal activity

- ▶ Instituted SOP for BMEUs integrating new DVD mailers
 - Codifies pre-payment of round trip
 - New mail markings allow better measurement
- ▶ Introduced Permit Reply Mail
 - Codifies pre-payment of round trip
 - New mail markings allow better measurement
- ▶ Completed mail characteristic study
 - Survey of plant practices
 - ▶ Online survey of 300 plants
 - Direct observation of mail processing at select locations
 - ▶ 25 site visits

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 What the mail characteristics study shows

- ▶ Lack of consistency throughout country
 - Substantial variation in handling practices
 - Culling occurs throughout mail processing
 - Concerted effort to manually separate return pieces by company
- ▶ Blockbuster envelopes appear to be superior
- ▶ Local SOPs are in place or are being developed
- ▶ Number of return envelopes are not counted
 - Measuring true productivity is difficult

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 Mail characteristic study warrants follow-up

- ▶ Lack of standardization makes normal costing approaches problematic
 - Average variability assumptions
 - Delivery costs may be affected by scale
- ▶ Effects on other mail difficult to assess without more rigorous observation
- ▶ Preliminary cost estimates
 - Illustrate the need to standardize around best practices
 - Suggest that revenues exceed cost, but with a cost coverage substantially less than typical FCM
 - Probably understate "true" costs

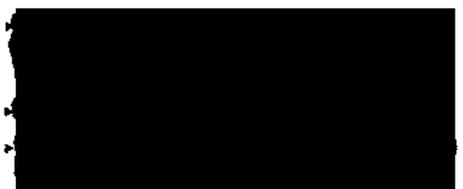
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 Other mail characteristic study findings

- ▶ "Magic Machines"
 - Tampa processes 100% of DVD mail on automation including AFCS
 - Low breakage rate - 1.9%
 - Contradicts Netflix's claims
 - Replication on other equipment difficult
- ▶ El Paso has the most costly process with a higher breakage rate of 2%

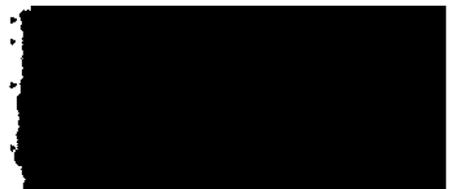
April 2007 Confidential for internal use only 10

 Recommendations - Short term



April 2007 Confidential for internal use only 11

 Recommendations - Long term



April 2007 Confidential for internal use only 12

PUBLIC

**Status Report and Recommendation on
Filing an Experimental Classification for
Round-trip Disc Mail**

**Individual Teleconferences with
Mailers and Envelope Manufacturers
21-23 September 2005**

PUBLIC

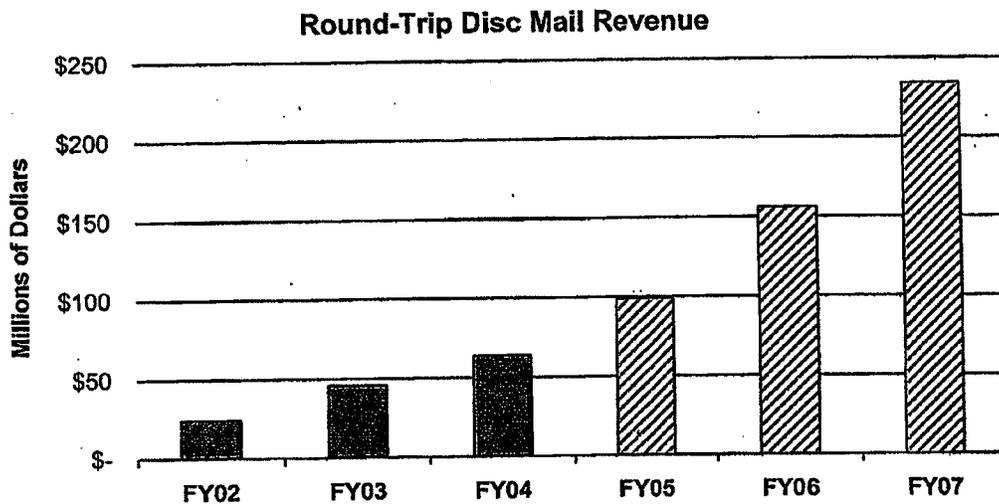
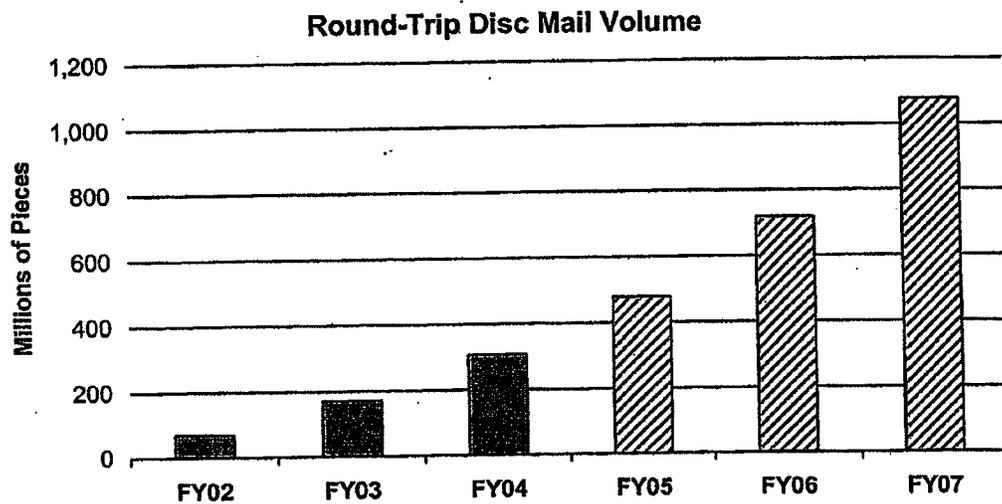
GFL0000849

Section 1: Current Status

Volume and Revenue

According to data from CBCIS, this mailing segment showed average annual volume growth of 75% between fiscal years 2002 and 2004. Estimated annual growth of 50% to 55% is expected through fiscal year 2007.

In fiscal year 2004, mail volumes for this segment approached 300 million pieces and revenue topped \$63 million. Projected volumes and revenue for fiscal year 2005 are 480 million pieces and \$90 million.



PUBLIC

Pricing and Classification

GFL0000850

Section 1: Current Status

Operational Issues

Industry growth is highlighting operational challenges in processing the two-way envelopes on their return trip. In their return configuration, most of the current envelope designs do not process effectively on letter-sorting equipment. Many of the envelopes are:

- Not machinable in letter automation: inadequate design features and construction cause jams and damage mail.
- Not automation-compatible: some unreadable barcodes and addresses lower productivity.

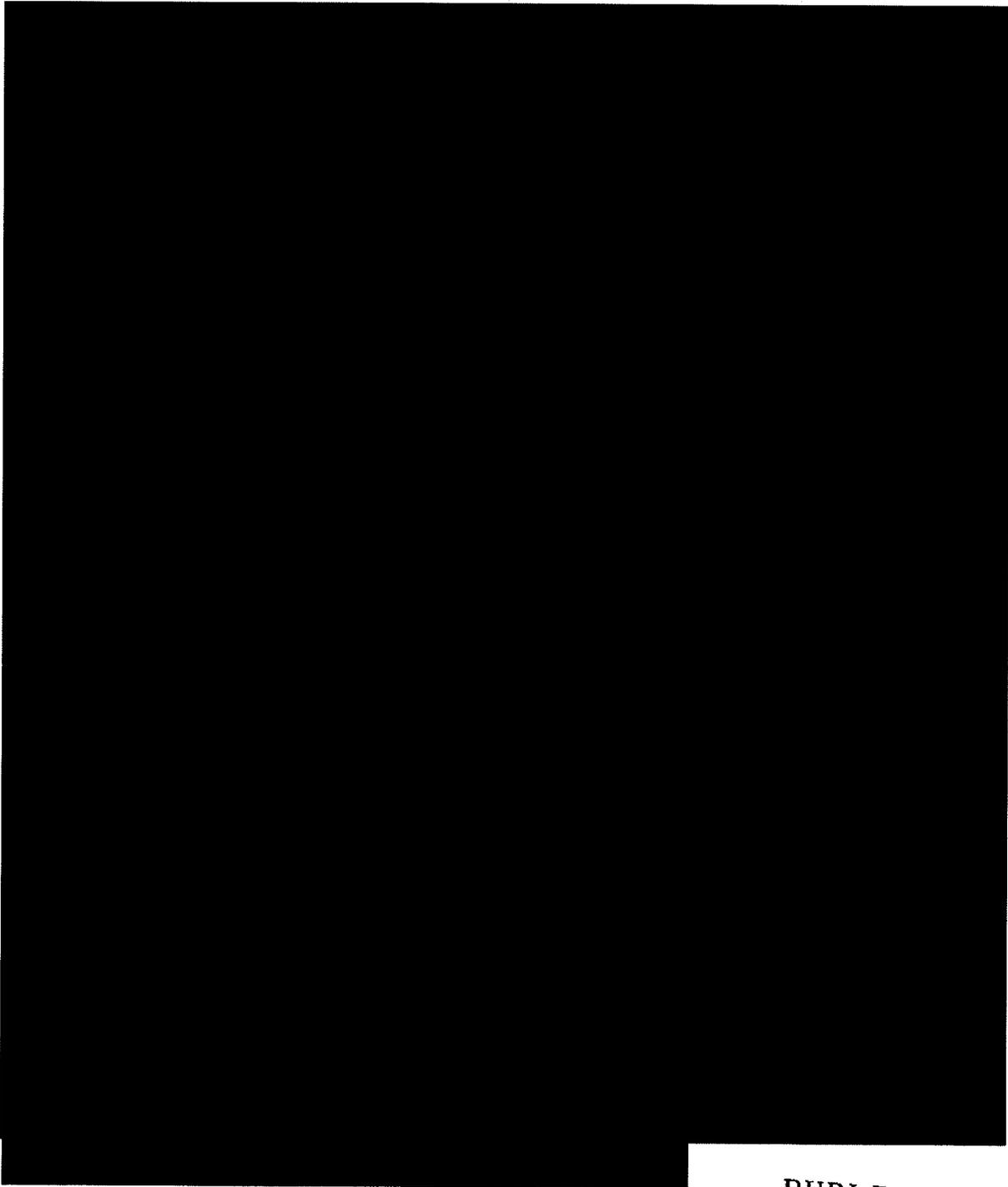
Handling Instructions

Headquarters instructed the field in December 2003 to run outgoing RDM letters on automation equipment. No processing instructions have been issued to the field describing how to handle the return pieces, although the field has been instructed to dispatch this mail in sleeved EMM trays.

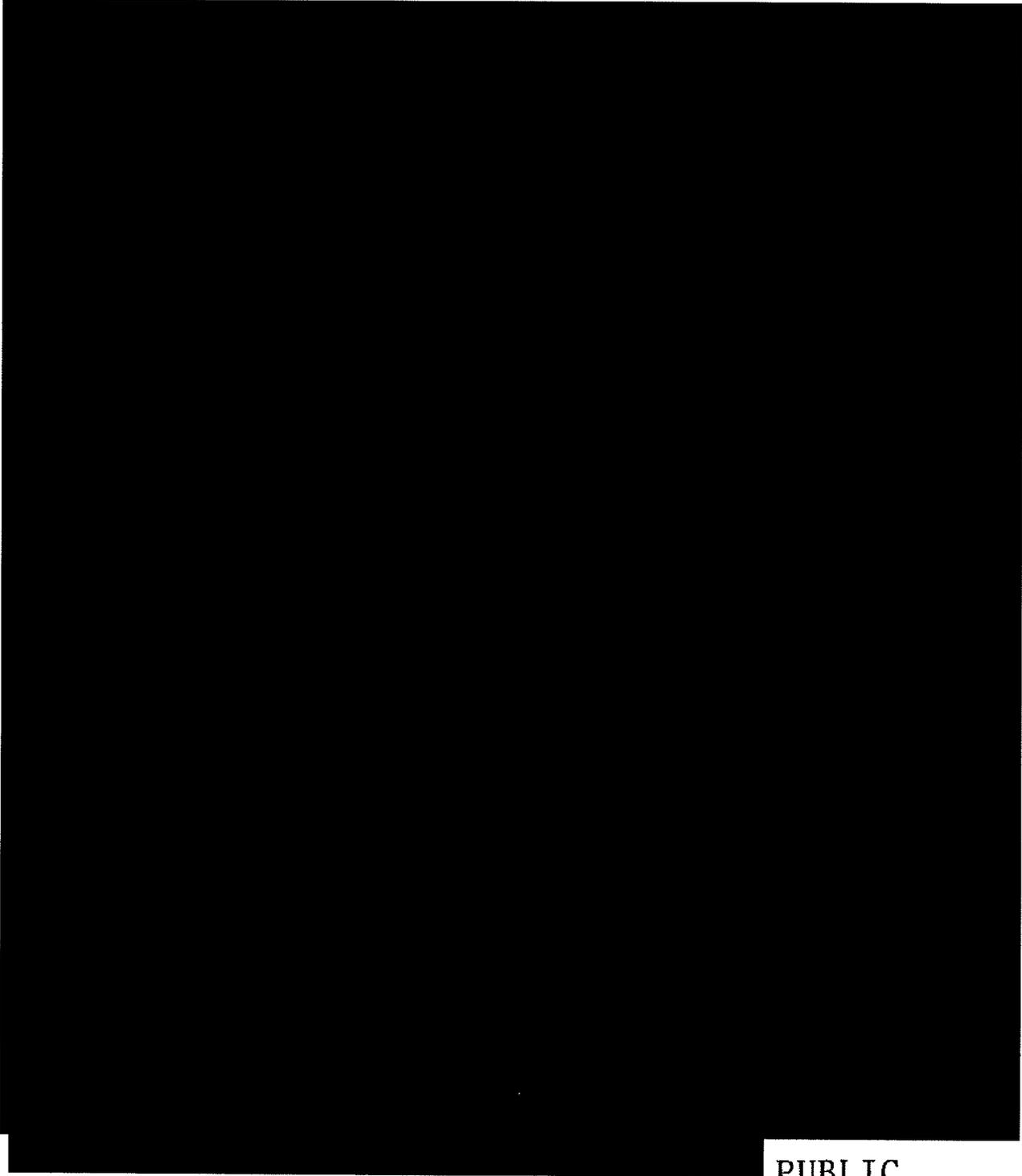
Headquarters Operations conducted plant visits and interviews in early 2005 and learned that local offices have developed a variety of ways to handle the return pieces. Some plants pull all identifiable mail in the opening operations and handle it either manually or in flats processing

Manual handling of these nonmachinable envelopes reduces contribution by an estimated \$2 million each month at current volumes.

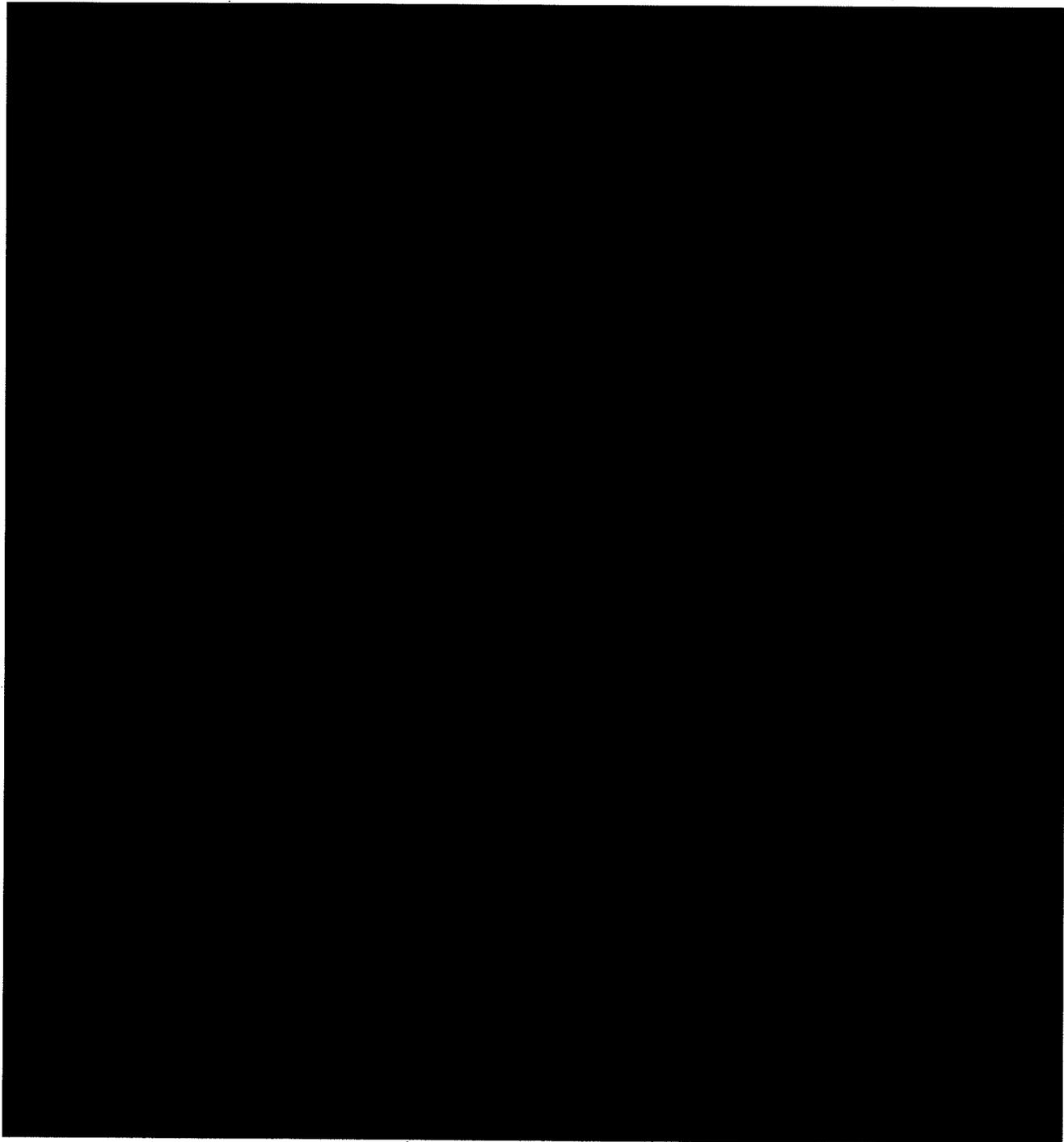
PUBLIC



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**USPS Mail Characteristics Study of
DVD-by-Mail**

Final Report and Recommendations

*Christensen Associates
August 2006*

PUBLIC

GFL0000921

1.0 INTRODUCTION

1.1 Purpose

A growing number of movie viewers and gaming enthusiasts have turned to online DVD rental companies in recent years. These companies have incorporated the Postal Service into their business models as a means of providing timely delivery of rented DVDs. DVD mailers send the DVDs to customers using single piece or presort First-Class Mail. The rental companies prepay return postage at single piece First-Class Mail rates, providing their customers with a self-contained return envelope. The Postal Service has asked Christensen Associates to study the mail characteristics and processing methods utilized by postal facilities that process these DVD envelopes, and to recommend best practices for future handling of these growing volumes. The volume estimates, analysis, and recommendations for processing methods developed during this DVD-by-mail study are contained in this report.

1.2 Background

Netflix, based in Los Gatos, CA; Blockbuster, based in Dallas, TX; and Gamefly, based in Los Angeles, CA; account for the vast majority of DVD-by-mail volumes. Taken together, these three companies were responsible for an estimated 571 million pieces of mail and just under \$200 million of Postal Service revenue in FY 2005.¹ The online DVD rental business model involves monthly subscribers maintaining online lists of DVDs they wish to receive. The rental company provides the customer with a DVD from the customer's list via the Postal Service. When finished with the DVD, the customer returns it through the mail in the envelope provided by the rental company. Upon receipt of the returned DVD from the customer, the rental company mails another DVD from the customer's list. When sufficient volumes are presented, the rental company pays presort First-Class Mail rates for the outbound trip to the viewer, and single piece First-Class Mail rates for the return trip from the viewer. The return piece carries a Business Reply Mail marking, for ease of sorting, even though postage has been prepaid.

Netflix serves nearly five million subscribers, utilizing a network of 39 distribution centers spread across the country and conveniently located near Postal Service mail processing facilities.² Blockbuster has far fewer dedicated shipping centers, but it also uses its large network of retail stores to fill the DVD needs of subscribers.

While the enormous growth in DVD-by-mail subscribers has been a boon to Postal Service First-Class Mail volume and revenue, the DVD envelopes do present challenges at mail processing facilities. The mixture of automation equipment at postal plants and the rigid, but at the same time fragile, DVDs can lead to difficulties. Both the Netflix and Blockbuster envelopes are designed to be letter automation-compatible, for the outbound trip to the subscriber and the return trip from the subscriber. Gamefly envelopes are designed to run on flat automation, and are AFSM 100 compatible.

¹ Source: FY 2005 *PostalOne!* (these data do not include Blockbuster's stamped pieces).

² Source: www.netflix.com.

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Netflix and Blockbuster have complained of damage to DVD envelopes caused by postal automation equipment. In response, Postal Service personnel contend that envelope design is the primary reason for damage.

2.0 PRELIMINARY SITE VISITS

In preparation for the data collection effort, investigative site visits were made to mail processing facilities in Madison, WI; Milwaukee, WI; Chicago, IL; and Palatine, IL. The purpose for these preliminary site visits was to:

- Become familiar with the design of DVD envelopes
- Develop a list of the methods used to process both outbound and return DVDs
- Examine the extent of damage, rejects, and missorts on automation equipment
- Talk with machine operators and mail handlers about DVD-by-mail processing
- Determine the feasibility of collecting volume information on DVD envelopes

During these visits, it became evident that most mail handlers are aware of the issues involved in processing DVD envelopes. Often, mail handlers cull the easily identifiable bright red (Netflix) and yellow (Blockbuster) envelopes from the automated mail stream. Some personnel in mail processing facilities simply assume these pieces will not run correctly on automation machinery, or feel that the risk of damage, missorts, or rejects justifies their removal from the automated processing stream. It was not unusual to see containers of separated returning DVDs at each point in the mail processing flow.

Mail handlers and machine operators were more than willing to talk about the issues with processing DVDs. They expressed frustration with each type of Blockbuster and Netflix DVD envelope they handled, whether designed for the outbound trip to the viewer or the return trip to the rental company, but the complaint heard more than any other was over the long flap on the lead edge of the Netflix return envelope. The Netflix envelope is much larger than the Blockbuster envelope (which is just slightly larger than the size of a DVD). While the Netflix DVD is on the lead edge of the mail piece on its way to the customer, the DVD ends up on the trailing edge on the return trip to the rental company. On the return trip the leading flap has often become bent, causing damage, rejects, and missorts on automation equipment. Non-DVD mail pieces can get caught in this large flap and missorted as well.

To demonstrate the problem, one site ran two trays of collection mail with the return Netflix envelopes mixed in on their DBCS for us (the operator normally culled all these pieces). Of the 93 Netflix DVD envelopes in the two trays:

- 53 were sorted correctly into a dedicated Netflix bin
- 35 were missorted
- 5 were rejected
- 11 non-Netflix pieces were also found in the Netflix bin

It was difficult to determine the extent of damage to DVDs caused by automation equipment during these preliminary visits because we observed so little being run. We saw several exposed DVDs and torn envelopes. Despite being caller service locations for either Netflix or Blockbuster,

none of these sites kept records of the number of returning DVDs that passed through their facilities. One site indicated that once the volumes began to grow, they stopped counting.

In addition to providing an understanding of the scope of the issue of DVD-by-mail processing, these preliminary visits were instrumental in designing both the web survey questionnaire and on-site data collection forms. It became clear that it would be difficult to classify plants into clearly-defined methods of processing. It was determined that both the web-based survey and on-site collection forms needed to be flexible enough to account for the numerous methods of processing that existed.

As a follow-up to these preliminary visits, a dozen phone calls were placed to processing plants in different regions of the country. Through these phone calls it was determined that the DVD-related issues observed during the investigative site visits to Midwest plants also exist at plants across the country. One plant said that it processes the Netflix return envelopes, with the problematic flap, by running the pieces upside-down on the DBCS machinery. By processing the DVD envelopes in this way, the DVD is on the lead edge of the mail piece and problems with jams, damage, and missorts are avoided. Anecdotes such as these illustrate the extent to which plants go to avoid the processing problems inherent in DVD envelopes.

3.0 STUDY PHASE ONE: WEB-BASED SURVEY

The first phase of the DVD-by-Mail Study was an online questionnaire directed at personnel with particular knowledge of the processing of DVD envelopes at each processing plant. The questionnaire was designed to solicit information related to the methods used to process DVD-by-mail volumes in each plant.

3.1 Universe and Compliance

The Sectional Center Facilities (SCFs) appearing in the Domestic Mail Manual (DMM) labeling list L002 formed the universe for the web-based questionnaire. Site coordinators with specific knowledge about the processing of DVD-by-mail volumes were requested from each SCF in the list. First through contact with the district offices, and finally through individual requests to the processing plants themselves, approximately 400 site coordinators provided contact information and were emailed a link to the online survey questionnaire. Personnel selected as site coordinators tended to be in-plant support managers or tour supervisors. In the end, individuals from just under 350 facilities completed the web-based survey.

3.2 Survey Instrument

The text of the web-based survey can be found in *Appendix A*. The survey is divided into sections related to the outbound trip of the DVD envelope from the online rental company to the viewer, and the return trip of the DVD envelope from the viewer to the rental company. Mailer-specific (Netflix, Blockbuster, Gamefly) questions were asked about:

- Preparation levels at arrival and departure (containerization, sleeving, etc.)
- Methods of processing

- Problems with sorting DVD envelopes on machinery (damage, missorts, etc.)
- Cross-docking facilities
- Types of damage and methods of repair
- Refund policies
- Existence of manual preparation units for DVDs
- Points of manual separation

Respondents were asked to provide any additional comments that helped describe how they process DVD-by-mail volumes. If at any point during the web survey a site coordinator needed to confer with other plant personnel on a response to a given question, they could simply close their web browser and return later to complete the survey.

3.3 Data Cleaning

Christensen Associates staff carefully scrutinized the responses to the web-based survey for inconsistencies or unclear responses. Where "other" was listed as a reply to a question, site coordinators were asked for specifics in a text box. The text box comments were examined and, where clearly appropriate, adjustments made to corresponding answers. For instance, if a respondent who was asked how they process *the majority* of DVDs being sent by Netflix to its subscribers, marked "other" and wrote "most are run on the DBCS, but some are processed manually," their answer was changed to "DBCS." Also, if a respondent was asked to "select all that apply," but instead selected "other" and wrote "all of the above," the database was changed to indicate that each item was selected.

In a handful of cases, respondents called (unsolicited) to request that answers they had previously provided to the web survey be changed due to new information they had received. Most of these calls were received while the survey was still available online. Respondents either completed a new survey or, if the change that needed to be made was relatively minor, corrections were made directly to the survey database.

In the event the responses to a given survey question indicated confusion about the question's intent, respondents were contacted for follow-up inquiries via email. Approximately 100 emails were sent seeking follow-up information. Where necessary, edits were made to the survey database as a result of new information that was received through these follow-ups. Finally, any discrepancies between the web survey responses and on-site observations made by Christensen Associates staff, either during preliminary site visits or on-site data collection efforts (see Section 4.0 below on the on-site data collection), were also corrected.

3.4 Survey Results

3.4.1 Responses to Introductory Questions

Summary totals of the responses to the introductory questions of the web-based survey are presented in *Table 1 of Appendix B*. A small percentage of the respondents indicated that they either do not process originating mail (i.e., wouldn't encounter DVD envelopes on the outbound trip from the rental company to the viewer) or destinating mail (i.e., don't process DVD envelopes on the return trip from the viewer to the rental company) at their facilities. These respondents

were only asked questions related to the type of DVD-by-mail volumes that they process. Just under 30 percent of respondents who indicated that they do process originating mail also indicated that a manual unit dedicated to the preparation of trays of DVD envelopes exists at their facilities.

3.4.2 Responses to Outbound Trip Questions

Table 2 of Appendix B shows a summary of the non-textual responses to the web survey questions related to the outbound trip of the DVD-by-mail volumes from rental company to viewer. The responses to Netflix or Blockbuster-focused questions in this section of the web survey were relatively uniform. The majority of respondents indicated that they process both Netflix and Blockbuster outbound DVDs on DBCS equipment. The vast majority of these respondents also indicated that their facilities Delivery Point Sequence (DPS) the Netflix and Blockbuster DVDs on their way to the viewer. Facilities that tend to process outbound DVDs in manual operations do so because of issues with jams or damage on machinery (or in a few cases don't have machinery). Torn envelopes are the most prevalent form of damage plants encounter when processing DVDs making their way from the rental company to the subscriber.

3.4.3 Responses to Return Trip Questions

Table 3 of Appendix B shows a summary of the non-textual responses to the questions in the section of the web survey related to the return trip of the DVD envelope from the viewer back to the rental company. There is more disparity between the Netflix and Blockbuster responses in this section of the survey. While just 28 percent of respondents indicated that Netflix return DVDs are processed on automation equipment, 59 percent indicated that Blockbuster return DVDs are processed on automation equipment. Of those respondents who indicated that they process return DVDs on automation equipment, the vast majority again responded that these pieces are run on DBCS equipment. Thirty-two percent of respondents who manually process Netflix return DVDs indicated that Netflix has asked them to manually process its return DVD envelopes. Respondents again indicated that torn envelopes were the most prevalent form of damage to DVD-by-mail pieces on the return trip from the subscriber to the rental company.

3.4.4 Additional Comments Provided

Respondents were asked to provide any additional comments about DVD-by-mail processing at the end of each section of the web survey. A sample of the comments provided at the end of the section of questions related to the processing of DVDs on the outbound trip to the viewer include:

- "Usually the DVDs have been machine processed once before reaching [this facility]. We can usually run them through another time through the SCF sortation safely. We have found that we can not risk a 3rd or 4th run through DPS. The DVD covers cannot withstand it. We now handthrow those DVDs going to our CRRT zones."
- "Blockbuster DVDs envelopes are a better automation compatible mail piece than Netflix."

Mail Characteristics Study of DVD-by-Mail

- "We receive Netflix from [another facility] containerized in large letter trays. We then sort these manually to the surrounding Post Offices. There seems to be some jams and some damage if we process these in automation. To protect all customers involved from damage to the DVD manual sorting seems to be the best option."
- "The outbound DVD[s] for the most part are excellent and process through our DPS procedure, we have very little damage to these DVDs."
- "We have few problems with the outbound envelopes. Most of the damage is on the in-bound side."
- "Very few damaged Blockbuster envelopes - the envelopes are designed more effectively than Netflix."
- "Outbound damage is minimal when processed on AFSM."
- "These need to be kept out of the letter machine mail stream and be routed to the flat sorting operation in order to avoid damage and delays."
- "Blockbuster's mailpiece design is far superior when compared to Netflix. Since the envelope size is the same size as the DVD, damage is not an issue."

More respondents provided comments in the section of the web survey related to the processing of DVDs returning from the viewer than in the section on outbound DVD processing. A sample of the comments received at the end of the section of questions on processing returning DVDs include:

- "Netflix return envelopes sort poorly due to design. The leading edge of the mailpiece lacks any rigidity, and therefore can be easily missorted by the DBCS."
- "The incoming DVDs are for the most part captured at the AFCS Operations and are manually extracted from the mail stream; a very labor intensive operation."
- "[Blockbuster] envelopes have a sturdy firmer edge, more compacted--sort better on automation machine. Do not see as many damaged (if any) pieces as NetFlix which get damaged due to floppy edge getting caught in machinery."
- "[Netflix] DVDs are culled out before they go through the AFCS's and placed in EMM trays and given to the courier when they arrive with the outbound DVDs that do run through automation."
- "Blockbuster DVDs are sent to manual letter operations and are sorted to the proper destinating address."
- "Netflix return DVDs are 'pulled' from the mail at any/all points in the processing cycle. In other words, for the most part, we make a concerted effort to manually separate these return mail pieces."
- "As with Netflix Return DVDs, some of the Blockbuster DVDs are culled in our 010 operation and processed on our UFSM 1000 (in addition to our DBCS's). It depends on how the DVD is situated in the envelope, since it doesn't take up the entire space of the envelope. If the DVD is situated toward the "feed end" of the envelope, it is run on a DBCS. Otherwise, it is sent to our UFSM 1000 and processed there."
- "Each [delivery] unit holds out any Netflix mail and trays up this mail, it is then collected and placed in a container for the caller to pick up the mail."
- "Blockbuster DVDs are sorted on the DBCS, unlike Netflix [which] is pulled out before going through the machine. Blockbuster's return envelope is much better than Netflix's."

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- "We give floor talks so employees know what to do with the DVD. Incoming they are processed into DPS. Outgoing, they are isolated from all areas and sent to the manual processing."
- "Blockbuster DVDs have an envelope which is a better design than Netflix so very few are damaged. Blockbuster DVDs run well on automation."
- "All the DVDs are sent to the Box section where they are faced and placed into EMM letter trays."
- "At this time we are pulling return Netflix out of the automated mail stream to manual operations. Packaging is too large for the DVD inside. Blockbuster, for instance, has an envelope appropriately sized to fit the DVD inside. Therefore, the envelopes run well in automation."

4.0 STUDY PHASE TWO: ON-SITE DATA COLLECTION

The purpose of the second phase of the DVD-by-mail study was to collect information that was not attainable using a web-based survey. The following on-site data were collected:

- DVD damage, jam, reject, and missort rates on each type of automation equipment
- Damage to non-DVD pieces caused by DVD jams
- Amount of time spent clearing DVD and non-DVD jams on automation equipment
- Amount of time spent clearing DVD and non-DVD jams on the facer-cancellor
- Proportions of volumes passing through each point of the mail processing stream

4.1 Sample Selection

The sample of sites for on-site data collection was randomly drawn from the universe of SCFs used for the web-based survey.³ The probability of an SCF being selected was proportional to an estimate of the volume of returning DVDs processed at each SCF (see *Section 5.0* for more information on the development of the volume estimates). To maximize sample size given resource constraints, five locations were randomly selected first. Then for each of these five locations, two neighboring SCFs were randomly selected. The neighboring sites were sampled without additional flights. *Table 4* below shows the list of sampled sites and the dates they were visited. The main or initial draw is in bold letters within each group.

Table 4
Selected Survey Sites for On-Site Data Collection

Site	Date (2006)
Santa Barbara CA	June 26
Oxnard CA	June 27
Los Angeles CA	June 28
Kilmer NJ	June 27
Southeastern PA	June 28
Baltimore MD	June 29

³ Sites that indicated during the web survey that they don't process originating mail were excluded from the universe.

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Abilene TX	July 10
Midland TX	July 11
El Paso TX	July 12
Tampa FL	July 11
Orlando FL	July 12
Lake Mary FL	July 13
Chicago IL	July 11
Carol Stream IL	July 12
Palatine IL	July 13

The first site drawn within each group is shown in bold.

4.2 Survey Instrument

The data collection forms used for the second phase of the DVD-by-mail study can be found in *Appendix B*. The *Machine Statistics* form was used to collect data on damage, jams, rejects, and missorts, as well as information on machine downtime. The total volume of each mailer's DVDs run on the machinery, for the duration of the observation, was recorded on this form as well. The *Processing Flow Counts* form was used to measure the returning DVDs being separated at each point in the mail processing stream. Data collectors used separate forms for Netflix, Blockbuster, and Gamefly. Where the volume of return DVDs was high, data collectors measured DVDs in inches. These inch measurements were later converted to pieces using a conversion rate calculated at each site.

4.3 Data Collection Teams

Five teams of two data collectors each from Christensen Associates visited the fifteen sampled SCFs (each team sampled at three plants). All arrangements were made through the site coordinators identified via the web-based survey. Data collectors arrived at the plants at least 30 minutes prior to the processing of collection mail. Upon arrival, data collectors toured the facility, with the site coordinator or some other knowledgeable plant employee, and familiarized themselves with the locations of automation equipment and DVD envelope culling points. Plant personnel were expressly asked not to deviate from their normal methods of processing DVD envelopes.

4.3.1 Machine Statistics

The data collector responsible for recording machine statistics took both outbound and return observations throughout the evening at each piece of machinery where DVD envelopes were actively being run. When mail processing stopped on a given machine due to employee breaks, low mail volume, or the need for maintenance on the machinery, the data collector concluded the observation and moved on to the next piece of equipment (if the machinery ran constantly, the data collector began and ended each observation at a pre-determined time). Observations were typically taken on the AFCS equipment first, until enough mail had been cancelled that other automation equipment (DBCS, OCR, etc.) were actively sorting.

While training for the on-site data collection effort during the preliminary site visits, the following two special cases impacting the machine statistics recording were observed:

- 1) *Un-cancelled rejects* - Data collectors observed un-cancelled mail pieces being rejected by facer-cancellors. In some plants these pieces were redirected to another machine or manual operation. In other plants these pieces were dumped back onto the culling belts for another pass through the machines. Operators continued to dump these hampers until they ran out of collection mail at the end of the evening. For the purposes of this study, any DVD envelopes redirected in this way were recorded as rejected pieces.
- 2) *"Soft" jams* - When recording jam statistics, data collectors became familiar with what machine operators termed a "soft" jam. Mainly observed on the DBCS, operators attempted to dislodge a soft jam by simply switching the machine on and off. Both DVD and non-DVD mail pieces caused soft jams. Data collectors only recorded information on jams when an operator physically opened a machine and worked on clearing a jam.

Data collectors generally used two methods to count the number of DVD envelopes that were processed on the automation equipment. Some data collectors found it most effective to count the pieces as they were fed into the machines. Others counted the envelopes in the machine runouts. In cases where the data collector was able to observe a complete run of either the presort DVDs from the mailer or returning DVDs from the subscribers, the DVD piece counts were obtained from end-of-run bin counts or drop-ship manifests.

4.3.2 Processing Flow Counts

The second team member was responsible for counting all the DVD envelopes returning from subscribers at each point in the mail processing stream. At times it was necessary that both data collectors observe nodes in the mail stream. Coordination with plant personnel was necessary to obtain accurate processing flow counts. The goal was to count any DVD envelopes returning from subscribers that were either manually separated or successfully run on the machinery. This count was taken for each of the three main DVD mailers. Data collectors also noted any other DVD rental companies' envelopes.

Data collectors observed the processing flow at several different locations in each plant. For plants that were caller service locations for the DVD mailers, it was possible to work next to the manual preparation station where the envelopes were being trayed for pickup. In order to track where the envelopes were coming from, data collectors marked containers at the various separation points with different colored stickers. Where this method was employed, mail handlers were instructed not to mix the containers from the various processing points. As a container arrived at caller service with a specific sticker color, the data collector counted the DVDs and recorded the total in the appropriate section of the *Processing Flow Counts* form.

In other plants, data collectors identified the mail handler responsible for gathering the containers of DVD envelopes from the various separation points in the mail processing stream. As the mail handler gathered the containers, the data collector counted the DVDs in them. In plants where DVD envelopes were commingled with other First-Class Mail throughout, recording the piece counts was more difficult. Data collectors often found it most effective to count the DVD

envelopes in the FIM and reject trays coming off the facer-cancellors. This method only worked in plants where the DVD processing stream was very clearly defined.

4.3.3 Wrap-up

Aside from recording machine statistics and processing flow counts, the on-site data collectors were also responsible for:

- Completing a web-based survey questionnaire for each plant visited
- Creating a detailed flow chart of the return DVD-by-mail processing flow for each mailer
- Collecting any necessary manifests and end-of-run reports

5.0 VOLUME ESTIMATES

Another purpose of the DVD-by-mail study was to develop an estimate of DVD volumes by mail processing method. The goal was to develop these estimates for both the outbound DVDs being mailed to the subscriber and the return DVDs being mailed back to the rental company. The methods employed to develop volume estimates are described below.

5.1 Outbound Trip Volumes by Processing Method

5.1.1 Estimation Procedure

In order to calculate an estimate of outbound (rental company to subscriber) DVD volumes by processing method, the total number of outbound DVD envelopes processed by each plant was needed. These plant-specific volumes could then be attributed to the processing method identified by each plant in the outbound section of the web-based survey. The total number of DVD pieces mailed by Netflix, Blockbuster (excluding stamped pieces), and Gamefly in FY2005 was obtained from the *PostalOne!* system.

These postage statement data indicated the points at which the DVD envelopes were entered, but not the plants where they were processed. The first step in distributing the *PostalOne!* volumes to the plants was to determine which destinating three-digit ZIP codes each plant processed. This information was obtained from the list of destinating SCFs found in Column C of the DMM labeling list L002. Next, the *PostalOne!* volumes were distributed to the appropriate three-digit ZIP codes. To accomplish this, distribution keys were developed for each mailer.

For Netflix, its own "On-Time Survey" information was used as a distribution key. Once or twice each year, Netflix asks its subscribers to complete a short on-line survey about the arrival dates and condition of the DVDs that they receive. The total number of respondents to this survey over a four-week period (by three-digit ZIP code) was used to distribute the *PostalOne!* volumes for Netflix. For Blockbuster and Gamefly, total delivery points by three-digit ZIP code were used to

distribute their *PostalOne!* volumes. Finally, the volumes by three-digit ZIP code were attributed to the destination plant, and the method used to process these volumes determined by the plant's responses to the web-based survey.

5.1.2 Results

Table 5 below shows the estimate of FY2005 outbound DVD volumes by processing method for Netflix, Blockbuster, and Gamefly. The vast majority of the outbound Netflix and Blockbuster DVD-by-mail volumes are processed on some form of BCS equipment. Even though the Gamefly envelopes were designed to be run in the flat automation stream, many of these pieces are processed on BCS equipment as well. Other than the fact that a higher percentage of Netflix outbound DVDs are processed on AFSM 100 equipment, the processing methods used for the initial trip of Netflix and Blockbuster DVDs are similar.

Processing Method	Netflix (%)	Blockbuster (%)	Gamefly (%)
DBCS/BCS/CSBCS			
MLOCR			
AFSM 100			
UFSM 1000			
SPBS/LIPS/APPS			
Manual			
Other			

5.2 Return Trip Volumes by Processing Method

5.2.1 Estimation Procedure

As mentioned earlier, very few, if any, plants have records of the number of returning DVD envelopes that are processed. Even caller service locations for the larger DVD rental companies do not keep track of this information. Because the DVDs mailed by these rental companies to their subscribers must be returned, the same *PostalOne!* volumes used in the outbound estimate were used to develop the estimate of return DVD volumes by processing method.

The list of originating facilities from the DMM labeling list L201 was used to determine which originating plant processed each three-digit ZIP code. For Netflix, its number of on-time survey respondents by three-digit ZIP code was again used to distribute the *PostalOne!* volumes. Total delivery points were again used as distribution keys for Blockbuster and Gamefly. The distributed DVD volumes by three-digit ZIP code were summed by originating plant, and attributed to the method of return processing the plants identified while completing the web-based survey.

5.2.2 Results

Table 6 below presents the estimate of FY2005 return DVD volumes by processing method for Netflix, Blockbuster, and Gamefly. In stark contrast to the uniform outbound estimates, 77 percent of the Netflix return DVD envelopes are processed manually compared to Blockbuster's 36 percent. Just over 58 percent of Blockbuster's return DVDs are processed on some form of BCS equipment. The vast majority of Gamefly's return DVDs are processed on the AFSM 100.

Processing Method	Netflix (%)	Blockbuster (%)	Gamefly (%)
DBCS/BCS/CSBCS			
MLOCR			
AFSM 100			
UFSM 1000			
Manual			
Other			

6.0 BEST PRACTICE RECOMMENDATIONS

A final goal of the DVD-by-mail study was to compile a set of recommendations for best practice handling of DVD-by-mail pieces. Whether during the preliminary site visits or on-site data collection, Christensen Associates staff closely observed the processing of DVD envelopes to determine what worked well and what didn't. Mail handlers and machine operators offered many different solutions to the processing problems that they encountered. Based on all the observations made and notes taken during the USPS Study of DVD-by-Mail, the sections that follow summarize the current processing environment and provide recommendations for future handling of DVD-by-mail volumes.

6.1 Envelope Design

Before examining the current processing environment, it is important to emphasize that some major issues exist in DVD envelope design. Possibly due to lower volumes than its counterparts, Gamefly was the only one of the three major DVD mailers that mail handlers and machine operators didn't take issue with when it came to envelope design. It is also the only one mailed at flat rates. Precedents are being set in the current design of Netflix (and to some extent Blockbuster) envelopes that other companies should not be encouraged to follow. Issues related to the design of Netflix and Blockbuster DVD envelopes are described below.

Netflix

The oversized Netflix envelope does not cause as many problems on the initial trip to the subscriber as it does on the return trip. The two design issues of the outbound envelope that came up most were:

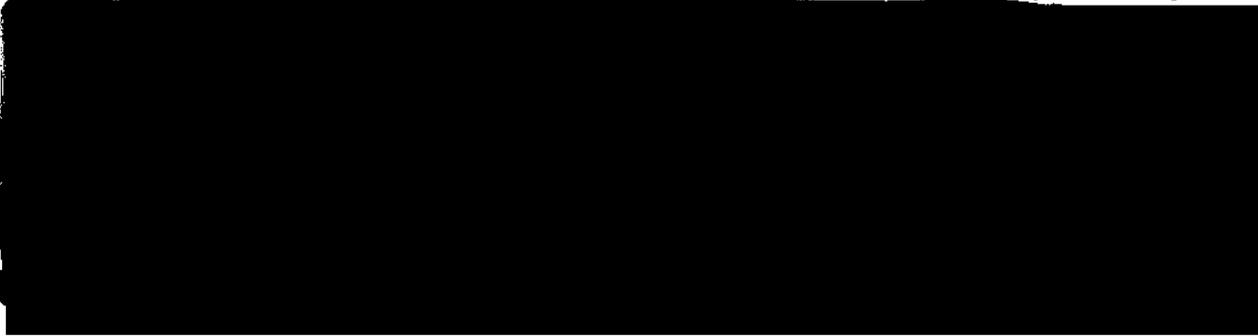
- 1) *The slot* – The outbound Netflix envelopes have a skinny slot at the top that allows Netflix to scan the contents. Operators have complained that the slot allows air into the piece, causing the envelope to inflate and jam the machines.
- 2) *The sticker* – A small, round sticker is placed on the top of each Netflix outbound envelope to secure the front of the piece. This sticker is folded in half (half over the front of the piece, and half over the back), and often loosens prior to or during mail processing. The loosened stickers cause mail pieces to clump together and jam the feeders. Machine operators were often observed reattaching these stickers on each piece at induction. When the subscriber receives the DVD, the sticker and front sheet are removed revealing the return mail piece.

Already during the preliminary site visits, Christensen Associates staff were made aware of the deficiencies in the design of the Netflix return envelope. Many more complaints were heard in plants about the Netflix return envelope than the issues with the slot and sticker on the outbound envelope. By the time the Netflix envelope has made its way to the subscriber and back to the plant, the envelope has aged to the point that a flap has developed on the lead edge of the piece (due to the fact that the DVD is on the trailing edge). This flap tends to fold over when processed on the machinery, causing damage, jams, missorts, and rejects. Often other mail is caught in this flap on the machinery and missorted or damaged as well.

Blockbuster

Fewer complaints were heard in processing plants about the Blockbuster DVD envelope than the Netflix envelope. Some mail handlers contended that the Blockbuster envelope is too square for automation, but appreciated the fact that Blockbuster designed an envelope that wouldn't fold over during processing. Still, two main issues with the design of the Blockbuster return envelope were witnessed during the study.

- 1) *Lack of barcode causes loop mail* – Blockbuster often presents non-barcode DVD envelopes to be mailed to its subscribers (mail pieces sent from its retail locations). The Postal Service sprays a fluorescent ID tag on the back of these mail pieces during processing. When the subscriber removes the front of the envelope to reveal the return piece, the postal-applied ID tag on the back remains. When the subscriber attempts to mail the DVD back to Blockbuster, the postal machinery reads the original ID tag and accesses its stored address information, as opposed to the mailer-applied barcode, and the piece is sorted once again to the subscriber's address.
- 2) *Envelope color causes mechanical rejects* – The bright yellow color of the Blockbuster envelope causes high reject rates on DBCSs in Output Sub System (OSS) mode. The yellow color on the back of the envelope matches closely with the fluorescent orange ID tag applied at the facer-cancellor. A DBCS in OSS mode can not read the fluorescent code and rejects the mail piece.



6.2 Envelope Recommendation



6.3 Current Processing Methods

As evidenced by the web survey results and volume estimates, the treatment of outbound DVD envelopes headed to subscribers is more uniform among plants than the treatment of the returning DVDs. Though concerns about damage in automated processing of the fragile disks have led to manual handling in a small segment of plants, the majority of postal facilities still reap the cost benefits of running these pieces on machinery. In some locations, flat sorters and OCRs are employed and the outbound envelopes are handled with other "bulky" mail. Unfortunately, the delivery units bear the increased handling costs associated with the plants that are processing these volumes on the flat sorters. While issues in envelope design, such as the Netflix stickers, have introduced the need for special attention by operators at induction in automated operations, most plants are willing to take the extra steps to keep these unique mail pieces in the automated processing stream.

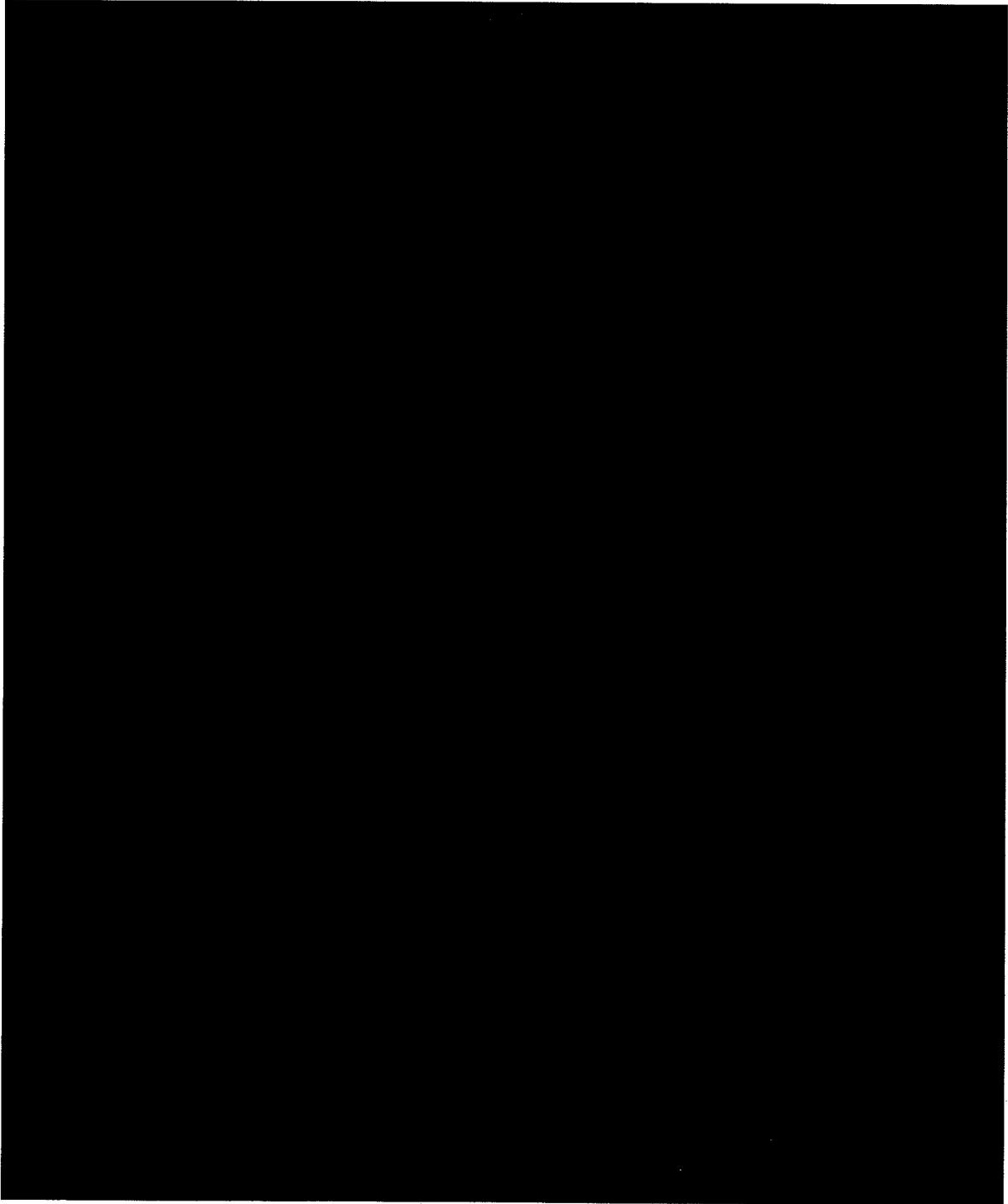
DVD envelopes returning from subscribers have introduced a wider array of issues in Postal Service processing. Larger design issues, such as the flap on the lead edge of the Netflix envelopes, have led many plants to abandon automated processing of DVDs due to the increased risk of jams, missorts, rejects, and damage. Disjointed DVD culling efforts were observed during the study at plants across the country. Machine operators within a plant often differ in their opinion of whether Netflix or Blockbuster return pieces can run successfully on the equipment. An AFCS operator culling return DVDs is often stationed next to another AFCS operator who is letting them run.

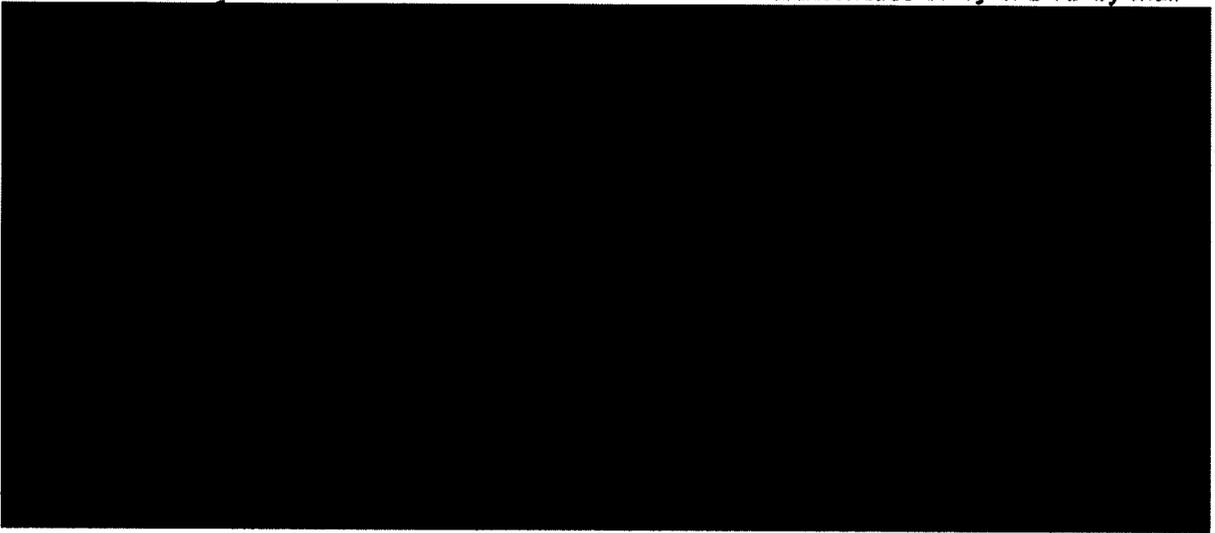


Even in plants that successfully run returning DVDs, machine operators often have difficulty explaining the reasons for their success. Christensen Associates staff observed Netflix return DVDs being sorted with surprising success on two DBCS machines in one plant during the on-site phase of the survey. Operators within that same plant demonstrated what happens when they run the DVD envelopes on any other DBCS machine. The majority of the pieces run on the other DBCS were jammed, rejected, or missorted. The three machines were the same model, and maintenance contended that each machine was adjusted the same.

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6.4 Processing Recommendations





**USPS Mail Characteristics Study of
DVD-by-Mail**

Survey Instruments, Methodologies, and Results

*Christensen Associates
November 2006*

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1.0 INTRODUCTION

1.1 Purpose

A growing number of movie viewers and video game enthusiasts have turned to online DVD rental companies in recent years. These companies have incorporated the Postal Service into their business models as a means of providing timely delivery of rented DVDs. DVD mailers send the DVDs to customers using single piece or presort First-Class Mail. The rental companies prepay return postage at single piece First-Class Mail rates, providing their customers with a self-contained return envelope. The Postal Service has asked Christensen Associates to study the mail characteristics and processing methods utilized by postal facilities that process these DVD envelopes. This report contains a description of the survey methods and results. The results include cost and volume estimates that reflect the Postal Service's current processing methods.

1.2 Background

Netflix, based in Los Gatos, CA; Blockbuster, based in Dallas, TX; and Gamefly, based in Los Angeles, CA; account for the vast majority of DVD-by-mail pieces. Taken together, these three companies were responsible for an estimated 571 million pieces of mail and just under \$200 million of Postal Service revenue in FY 2005.¹ The online DVD rental business model involves monthly subscribers maintaining online lists of DVDs they wish to receive. The rental company provides the customer with a DVD from the customer's list via the Postal Service. When finished with the DVD, the customer returns it through the mail in the envelope provided by the rental company. Upon receipt of the returned DVD from the customer, the rental company mails another DVD from the customer's list. When sufficient volumes are presented, the rental company pays presort First-Class Mail rates for the outbound trip to the subscriber, and single piece First-Class Mail rates for the return trip from the subscriber. The return piece carries a Permit Reply Mail marking, for ease of sorting, and postage has been prepaid.

Netflix serves nearly five million subscribers, utilizing a network of 39 distribution centers spread across the country and conveniently located near Postal Service mail processing facilities.² Blockbuster has far fewer dedicated shipping centers, but it also uses its large network of retail stores to fill the DVD needs of subscribers.

The enormous growth in DVD-by-mail subscribers has been a benefit to Postal Service First-Class Mail volume and revenue. The mixture of automation equipment at postal plants and the rigid, but at the same time fragile, DVDs can lead to difficulties. The Netflix and Blockbuster envelopes are designed to be letter automation-compatible both for the outbound trip to the subscriber and the return trip from the subscriber. Gamefly envelopes are designed to run on flat automation and are AFSM 100 compatible.

¹ Source: FY 2005 *PostalOne!* which does not include Blockbuster's stamped pieces.

² Source: www.netflix.com.

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2.0 PRELIMINARY SITE VISITS

In preparation for the data collection effort, investigative site visits, near Christensen's office in Wisconsin, were made to mail processing facilities in Madison, WI; Milwaukee, WI; Chicago, IL; and Palatine, IL. The purpose for these preliminary site visits was to:

- Become familiar with the design of DVD envelopes
- Develop a list of the methods used to process both outbound and return DVDs
- Examine the extent of damage, rejects, and missorts on automation equipment
- Talk with machine operators and other personnel about DVD-by-mail processing
- Determine the feasibility of collecting volume information on DVD envelopes

During these visits, it became evident that most mail processing employees are aware of the issues involved in processing DVD envelopes. Often, employees cull the easily identifiable the bright colored envelopes from the automated mail stream. Some supervisors in mail processing facilities believe these pieces will not run correctly on automation machinery based on their experiences working with this equipment, or feel that the risk of damage, missorts, or rejects justifies their removal from the automated processing stream. It was not unusual to see containers of separated return DVDs at points throughout the mail processing flow.

Mail processing employees and machine operators were more than willing to talk about the issues with processing DVDs. They expressed frustration with each type of envelope they handled, whether designed for the outbound trip to the subscriber or the return trip to the rental company, but the complaint heard more than any other was over the long flap on the lead edge of the Netflix return envelope. The Netflix envelope is much larger than the Blockbuster envelope (which is just slightly larger than the size of a DVD). While the Netflix DVD is on the lead edge of the mail piece on its way to the subscriber, the DVD ends up on the trailing edge on the return trip to the rental company.³ On the return trip the leading flap often becomes bent, causing damage, rejects, and missorts on automation equipment. Non-DVD mail can get caught in this large flap and end up being missorted as well.

To demonstrate the problem, personnel at one site processed two trays of collection mail with the return Netflix envelopes mixed in on their DBCS (the operator normally culled all these pieces). Of the 93 Netflix DVD envelopes in the two trays:

- 53 were sorted correctly into a dedicated Netflix bin
- 35 were missorted
- 5 were rejected
- 11 non-Netflix pieces were also found in the Netflix bin

It was difficult to determine the extent of damage to DVDs caused by automation equipment, or if the automation equipment caused damage during these preliminary visits. Many sites we visited

³ This is due to the design of the Netflix envelope. To return a Netflix DVD, a subscriber tears off the perforated cover of the envelope to expose the return address. The return address information is printed upside down relative to the original cover, meaning that envelope must be rotated 180 degrees to be processed upright. After this rotation, the DVD is positioned on the trailing edge of the envelope.

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didn't run these pieces on the automation equipment. Although we were told that one of the reasons these pieces were not run on automation equipment was because the pieces were often damaged, we could not measure damage rates without having the facility alter their processing methods. Of those pieces that we observed being run on automation equipment, we saw several exposed DVDs and torn envelopes. However, we could not verify that the automation caused the damage. Despite being caller service locations for both Netflix and Blockbuster, none of these sites kept records of the number of returning DVDs that passed through their facilities. One site indicated that once the volumes began to grow, they stopped counting.

In addition to providing an understanding of the scope of the issue of DVD-by-mail processing, these preliminary visits were instrumental in designing both the web survey questionnaire and on-site data collection forms. It became evident that it would be difficult to classify plants into clearly defined methods of processing. It was determined that both the web-based survey and on-site collection forms needed to be flexible enough to account for the numerous methods of processing that exist.

As a follow-up to these preliminary visits, a dozen phone calls were placed to processing plants in different regions of the country. From these phone calls it was determined that the issues observed during the preliminary site visits to Midwest plants also exist at plants across the country. One plant said that it processes the Netflix return envelopes, with the problematic flap, by running the pieces upside-down on the DBCS machinery. In this way, the DVD is on the lead edge of the mail piece and problems with jams, damage, and missorts are avoided. Anecdotes such as these illustrate the extent to which plants go to avoid the processing problems inherent in some types of DVD envelopes.

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3.0 STUDY PHASE ONE: WEB-BASED SURVEY

The first phase of this survey effort was an online questionnaire directed at personnel with particular knowledge of the processing of DVD envelopes at each processing plant. The questionnaire was designed to solicit information related to the methods used to process DVD-by-mail volumes in each plant.

3.1 Universe and Compliance

The Sectional Center Facilities (SCFs) appearing in the Domestic Mail Manual (DMM) labeling list L002 formed the universe for the web-based questionnaire. Site coordinators from each SCF in the list with specific knowledge about the processing of DVD-by-mail volumes were asked to participate in the survey. Site coordinators provided contact information for 405 facilities. Each coordinator was emailed a link to the online survey questionnaire. Site coordinators tended to be in-plant support managers or tour supervisors. In the end, coordinators from 348 facilities completed the web-based survey. Fifty-seven facilities were contacted but did not complete the survey.

3.2 Survey Instrument

The text of the web-based survey can be found in *Appendix A*. The survey is divided into sections related to the outbound trip of the DVD envelope from the online rental company to the subscriber, and the return trip of the DVD envelope from the subscriber to the rental company. Company-specific (Netflix, Blockbuster, Gamefly) questions were asked about:

- Preparation at arrival and departure (containerization, sleeving, etc.)
- Methods of processing
- Problems with sorting DVD envelopes on machinery (damage, missorts, etc.)
- Cross-docking facilities
- Types of damage and methods of repair
- Refund policies
- Existence of manual preparation units for DVDs
- Points of manual separation

Respondents were asked to provide any additional comments that helped describe how their plant processes DVD-by-mail pieces. If at any point during the web survey a site coordinator needed to confer with other plant personnel on a response to a given question, they could close their web browser and return later to complete the survey.

3.3 Data Cleaning

Christensen Associates staff carefully scrutinized the responses to the web-based survey for inconsistencies or unclear responses. Where "other" was listed as a reply to a question, site

coordinators were asked for specifics in a text box. The text box comments were examined and, where clearly appropriate, adjustments were made to corresponding answers. For instance, if a respondent who was asked how they process *the majority* of DVDs being sent by Netflix to its subscribers marked "other" and wrote "most are run on the DBCS, but some are processed manually," their answer was changed to "DBCS." Also, if a respondent was asked to "select all that apply," but instead selected "other" and wrote "all of the above," the database was changed to indicate that each item was selected.

In a handful of cases, respondents called (unsolicited) to request that answers they had previously provided to the web survey be changed due to new information they had received. Most of these calls were received while the survey was still available online. Respondents either completed a new survey or, if the change that needed to be made was relatively minor, corrections were made directly to the survey database by Christensen Associates staff.

In the event the responses to a given survey question indicated confusion about the question's intent, respondents were contacted for follow-up inquiries via email. Approximately 100 emails were sent seeking follow-up information. Where necessary, edits were made to the survey database as a result of new information that was received through these follow-ups. Finally, any discrepancies between the web survey responses and on-site observations made by Christensen Associates staff, either during preliminary site visits or on-site data collection efforts (see Section 4.0 below concerning on-site data collection), were also corrected.

3.4 Survey Results

3.4.1 Responses to Introductory Questions

Summary totals of the responses to the introductory questions of the web-based survey are presented in *Table B-1 of Appendix B*. A small percentage of the respondents indicated that they either do not process originating mail (i.e., would not encounter DVD envelopes on the outbound trip from the rental company to the subscriber) or destinating mail (i.e., do not process DVD envelopes on the return trip from the subscriber to the rental company) at their facilities. These respondents were only asked questions related to the type of DVD-by-mail pieces that they process. Just under 30 percent of respondents who indicated that they do process originating mail also indicated that a manual unit dedicated to the preparation of trays of DVD envelopes exists at their facilities.

3.4.2 Responses to Outbound Trip Questions

Table B-2 of Appendix B shows a summary of the non-textual responses to the web survey questions related to the outbound trip of the DVD-by-mail volumes from rental company to subscriber. The responses to Netflix- or Blockbuster-focused questions in this section of the web survey were relatively uniform. The majority of respondents indicated that they process both Netflix and Blockbuster outbound DVDs on DBCS equipment. The vast majority of these respondents also indicated that their facilities Delivery Point Sequence (DPS) the Netflix and Blockbuster DVDs on their way to the subscriber. Facilities that tend to process outbound DVDs in manual operations do so because of issues with jams or damage on machinery. In some cases there facilities did not have the machinery. Torn envelopes are the most prevalent form of

damage plants encounter when processing DVDs making their way from the rental company to the subscriber.

3.4.3 Responses to Return Trip Questions

Table B-3 of Appendix B shows a summary of the non-textual responses to the questions in the section of the web survey related to the return trip of the DVD envelope from the subscriber back to the rental company. There is more disparity between the Netflix and Blockbuster responses in this section of the survey. While just 28 percent of respondents indicated that Netflix return DVDs are processed on automation equipment, 59 percent indicated that Blockbuster return DVDs are processed on automation equipment. Of those respondents who indicated that they process return DVDs on automation equipment, the vast majority again responded that these pieces are run on DBCS equipment. Thirty-two percent of respondents who manually process Netflix return DVDs indicated that Netflix has asked them to manually process its return DVD envelopes. Respondents again indicated that torn envelopes are the most prevalent form of damage to DVD-by-mail pieces on the return trip from the subscriber to the rental company.

3.4.4 Additional Comments Provided

Respondents were asked to provide any additional comments about DVD-by-mail processing at the end of each section of the web survey. Sample comments about outbound DVDs include:

- "Usually the DVDs have been machine processed once before reaching [this facility]. We can usually run them through another time through the SCF sortation safely. We have found that we can not risk a 3rd or 4th run through DPS. The DVD covers cannot withstand it. We now handthrow those DVDs going to our CRRT zones."
- "Blockbuster DVDs envelopes are a better automation compatible mail piece than Netflix."
- "We receive Netflix from [another facility] containerized in large letter trays. We then sort these manually to the surrounding Post Offices. There seems to be some jams and some damage if we process these in automation. To protect all customers involved from damage to the DVD manual sorting seems to be the best option."
- "The outbound DVD[s] for the most part are excellent and process through our DPS procedure, we have very little damage to these DVDs."
- "We have few problems with the outbound envelopes. Most of the damage is on the in-bound side."
- "Very few damaged Blockbuster envelopes - the envelopes are designed more effectively than Netflix."
- "Outbound damage is minimal when processed on AFSM."
- "These need to be kept out of the letter machine mail stream and be routed to the flat sorting operation in order to avoid damage and delays."
- "Blockbuster's mailpiece design is far superior when compared to Netflix. Since the envelope size is the same size as the DVD, damage is not an issue."

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More respondents provided comments in the section of the web survey related to the processing of DVDs returning from the subscriber than in the section on outbound DVD processing. Sample comments about returning DVDs include:

- "Netflix return envelopes sort poorly due to design. The leading edge of the mailpiece lacks any rigidity, and therefore can be easily missorted by the DBCS."
- "The incoming DVDs are for the most part captured at the AFCS Operations and are manually extracted from the mail stream; a very labor intensive operation."
- "[Blockbuster] envelopes have a sturdy firmer edge, more compacted—sort better on automation machine. Do not see as many damaged (if any) pieces as NetFlix which get damaged due to floppy-edge getting caught in machinery."
- "[Netflix] DVDs are culled out before they go through the AFCS's and placed in EMM trays and given to the courier when they arrive with the outbound DVDs that do run through automation."
- "Blockbuster DVDs are sent to manual letter operations and are sorted to the proper destinating address."
- "Netflix return DVDs are 'pulled' from the mail at any/all points in the processing cycle. In other words, for the most part, we make a concerted effort to manually separate these return mail pieces."
- "As with Netflix Return DVDs, some of the Blockbuster DVDs are culled in our 010 operation and processed on our UFSM 1000 (in addition to our DBCS's). It depends on how the DVD is situated in the envelope, since it doesn't take up the entire space of the envelope. If the DVD is situated toward the "feed end" of the envelope, it is run on a DBCS. Otherwise, it is sent to our UFSM 1000 and processed there."
- "Each [delivery] unit holds out any Netflix mail and trays up this mail, it is then collected and placed in a container for the caller to pick up the mail."
- "Blockbuster DVDs are sorted on the DBCS, unlike Netflix [which] is pulled out before going through the machine. Blockbuster's return envelope is much better than Netflix's."
- "We give floor talks so employees know what to do with the DVD. Incoming they are processed into DPS. Outgoing, they are isolated from all areas and sent to the manual processing."
- "Blockbuster DVDs have an envelope which is a better design than Netflix so very few are damaged. Blockbuster DVDs run well on automation."
- "All the DVDs are sent to the Box section where they are faced and placed into EMM letter trays."
- "At this time we are pulling return Netflix out of the automated mail stream to manual operations. Packaging is too large for the DVD inside. Blockbuster, for instance, has an envelope appropriately sized to fit the DVD inside. Therefore, the envelopes run well in automation."

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4.0 STUDY PHASE TWO: ON-SITE DATA COLLECTION

The purpose of the second phase of the DVD-by-mail study was to collect information that was not attainable using a web-based survey. The following on-site data were collected:

- DVD damage, jam, reject, and missort rates on each type of automation equipment
- Damage to non-DVD pieces caused by DVD jams
- Amount of time spent clearing DVD and non-DVD jams on automation equipment
- Amount of time spent clearing DVD and non-DVD jams on the Advanced Facer Cancellor System (AFCS)
- Proportions of DVD volumes passing through each point of the mail processing stream

4.1 Sample Selection

The sample of sites for on-site data collection was randomly drawn from the universe of SCFs used for the web-based survey.⁴ The probability of an SCF being selected was proportional to an estimate of the volume of returning DVDs processed at each SCF (see *Section 5.0* for more information on the development of the volume estimates). To maximize sample size given resource constraints, five locations were randomly selected first. Then, for each of these five locations, two neighboring SCFs (within 200 miles of the initially selected plant) were randomly selected. *Table 1* below shows the list of sampled sites and the dates they were visited. The initially drawn site is in bold letters within each group.

⁴ Sites that indicated during the web survey that they don't process originating mail were excluded from the universe.

Table 1
Selected Survey Sites for On-Site Data Collection

<u>Site</u>	<u>Date (2006)</u>
Santa Barbara CA	June 26
Oxnard CA	June 27
Los Angeles CA	June 28
Kilmer NJ	June 27
Southeastern PA	June 28
Baltimore MD	June 29
Abilene TX	July 10
Midland TX	July 11
El Paso TX	July 12
Tampa FL	July 11
Orlando FL	July 12
Lake Mary FL	July 13
Chicago IL	July 11
Carol Stream IL	July 12
Palatine IL	July 13

The first site drawn within each group is shown in bold.

4.2 Survey Instrument

The data collection forms used for the second phase of the DVD-by-mail study is found in *Appendix B*. The *Machine Statistics* form was used to collect data on damage, jams, rejects, and missorts, as well as information on machine downtime. The total volume of each company's DVDs run on the machinery, for the duration of the observation, was recorded on this form as well. The *Processing Flow Counts* form was used to measure the returning DVDs being separated at each point in the mail processing stream. Data collectors used separate forms for Netflix, Blockbuster, and Gamefly. Where the volume of return DVDs was high, data collectors measured DVDs in inches. These inch measurements were later converted to pieces using a conversion rate calculated at each site.

4.3 Data Collection Teams

Five teams of two data collectors each from Christensen Associates visited the fifteen randomly selected SCFs (each team collected data at three plants). All arrangements were made through the site coordinators identified via the web-based survey. Data collectors arrived at the plants at least 30 minutes prior to the processing of collection mail. Upon arrival, data collectors toured the facility, with the site coordinator or some other knowledgeable plant employee, and familiarized themselves with the locations of automation equipment and DVD envelope culling points. Plant personnel were expressly asked not to deviate from their normal methods of processing DVD envelopes.

4.3.1 Machine Statistics

The data collector responsible for recording machine statistics took both outbound and return observations throughout the evening at each piece of machinery where DVD envelopes were actively being run. When mail processing stopped on a given machine due to employee breaks, low mail volume, or the need for maintenance on the machinery, the data collector concluded the observation and moved on to the next piece of equipment.⁵ Observations were typically taken on the AFCS equipment first, until enough mail had been cancelled that other automation equipment (DBCS, OCR, etc.) were actively sorting.

The preliminary site visits revealed two special cases affecting the recording of machine statistics:

- 1) *Un-cancelled rejects* - Data collectors observed un-cancelled mail pieces being rejected by AFCS machines. In some plants these pieces were redirected to another machine or manual operation. In other plants these pieces were dumped back onto the culling belts for another pass through the machines. Operators continued to dump these hampers until they ran out of collection mail at the end of the evening. For the purposes of this study, any DVD envelopes redirected in this way were recorded as rejected pieces.
- 2) *"Soft" jams* - When recording jam statistics, data collectors became familiar with what machine operators termed a "soft" jam. Operators attempted to dislodge a soft jam on the DBCS by switching the machine on and off. Both DVD and non-DVD mail pieces caused soft jams. Data collectors only recorded information on jams when an operator physically opened a machine and worked on clearing a jam.

Data collectors generally used two methods to count the number of DVD envelopes that were processed on the automation equipment. Some data collectors found it most effective to count the pieces as they were fed into the machines. Others counted the envelopes in the machine runouts. In cases where the data collector was able to observe a complete run of either the presort DVDs from the mailer or returning DVDs from the subscribers, the DVD piece counts were obtained from end-of-run bin counts or drop-ship manifests.

4.3.2 Processing Flow Counts

The second data collector was responsible for counting all the DVD envelopes returning from subscribers at each point in the mail processing stream. At times it was necessary that both data collectors observe nodes in the mail stream. Coordination with plant personnel was necessary to obtain accurate processing flow counts. The goal was to count any DVD envelopes returning from subscribers that were either manually separated or successfully run on the machinery. This count was taken for each of the three main DVD mailers. Data collectors also noted any other DVD rental companies' envelopes.

Data collectors observed the processing flow at several different locations in each plant. For plants that were caller service locations for the DVD mailers, it was possible to work next to the manual preparation station where the envelopes were being trayed for pickup. In order to track

⁵ If the machinery ran constantly, the data collector began and ended each observation at a pre-determined interval

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where the envelopes were coming from, data collectors marked containers at the various separation points with different colored stickers. Where this method was employed, mail processing employees were instructed not to mix the containers from the various processing points. As a container arrived at caller service with a specific sticker color, the data collector counted the DVDs and recorded the total in the appropriate section of the *Processing Flow Counts* form.

At other plants, data collectors identified the mail processing employee responsible for gathering the containers of DVD envelopes from the various separation points in the mail processing stream. As the employee gathered the containers, the data collector counted the DVDs in them. In plants where DVD envelopes were commingled with other First-Class Mail throughout, recording the piece counts was more difficult. Data collectors often found it most effective to count the DVD envelopes in the FIM and reject trays coming off the AFCS. This method only worked in plants where the DVD processing stream was very clearly defined.

4.3.3 Wrap-up

Aside from recording machine statistics and processing flow counts, the on-site data collectors were also responsible for:

- Completing a web-based survey questionnaire for each plant visited
- Creating a detailed flow chart of the return DVD-by-mail processing flow for each mailer
- Collecting any necessary manifests and end-of-run reports

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5.0 VOLUME ESTIMATES

A primary purpose of this study is to develop estimates of DVD volumes by mail processing method. The goal is to develop estimates for both the outbound DVDs being mailed to the subscriber and the returning DVDs being mailed back to the rental company. The methods employed to develop volume estimates are described in this section.

5.1 Outbound Trip Volumes by Processing Method

5.1.1 Estimation Procedure

In order to calculate an estimate of outbound (rental company to subscriber) DVD volumes by processing method, the total number of outbound DVD envelopes processed by each plant is needed. These plant-specific volumes can then be attributed to the processing method identified by each plant in the outbound section of the web-based survey. The total number of DVD pieces mailed by Netflix, Blockbuster (excluding stamped pieces), and Gamefly in FY2005 is obtained from the *PostalOne!* system.

These postage statement data indicate the points at which the DVD envelopes are entered, but not the plants where they are processed. The first step in distributing the *PostalOne!* volumes to the plants is to determine which destinating three-digit ZIP Codes each plant processes. This information is obtained from the list of destinating SCFs found in Column C of the DMM labeling list L002. Next, the *PostalOne!* volumes are distributed to the appropriate three-digit ZIP Codes. To accomplish this, distribution keys are developed for each DVD rental company.

For Netflix, its own "On-Time Survey" information is used as a distribution key. Once or twice each year, Netflix asks its subscribers to complete a short on-line survey about the arrival dates and condition of the DVDs that they receive. The total number of respondents to this survey over a four-week period (by three-digit ZIP Code) is used to distribute the *PostalOne!* volumes for Netflix. For Blockbuster and Gamefly, this same information is used to form proxy distribution keys. Finally, the volumes by three-digit ZIP Code are attributed first to the destination plant and then to the method used to process these volumes as determined by the web-based survey.

5.1.2 Results

Table 2 below shows the estimates of FY 2005 outbound DVD volumes by processing method. The vast majority of the outbound Netflix and Blockbuster DVD-by-mail volumes are processed on some form of BCS equipment. Even though the Gamefly envelopes are designed to be run in the flat automation stream, many of these pieces are processed on BCS equipment as well. Other than the fact that a higher percentage of Netflix outbound DVDs are processed on AFSM 100 equipment, the processing methods used for the initial trip of Netflix and Blockbuster DVDs are similar.

Table 2
Estimate of Outbound Volumes (000s) by Processing Method

Processing Method	Netflix (%)	Blockbuster (%)	Gamefly (%)
DBCS with DPS			
DBCS - no DPS			
CSBCS			
OCR			
AFSM 100			
USFM 1000			
SPBS			
Manual Letter			
Manual Flat			
Other			
Total			

5.2 Return Trip Volumes by Processing Method

5.2.1 Estimation Procedure

As mentioned in Section 2.0, very few, if any, plants have records of the number of returning DVD envelopes that are processed. Even caller service locations for the larger DVD rental companies do not keep track of this information. Because the DVDs mailed by these rental companies to their subscribers must be returned, the same *PostalOne!* volumes used in the outbound estimate are used to develop the estimates of returning DVD volumes by processing method.

The list of originating facilities from the DMM labeling list L201 is used to determine which originating plant processed each three-digit ZIP Code. For each company, the Netflix on-time survey data is again used to distribute the *PostalOne!* volumes to the three-digit ZIP code level. The distributed DVD volumes by three-digit ZIP Code are then summed first by originating plant and then by return processing method as determined by the web-based survey.

5.2.2 Results

Table 3 below presents the estimates of FY 2005 returning DVD volumes by processing method. In stark contrast to the uniform outbound estimates, 77 percent of the Netflix returning DVD envelopes are processed manually compared to Blockbuster's almost 35 percent. Just over 62 percent of Blockbuster's returning DVDs are processed on some form of BCS equipment. The vast majority of Gamefly's returning DVDs are processed on the AFSM 100.

Table 3
Estimate of Returning Volumes (000s) by Processing Method

Processing Method	Netflix (%)	Blockbuster (%)	Gamefly (%)
DBCS/BCS/CSBCS			
MLOCR			
AFSM 100			
UFSM 1000			
Manual			
Other			
Total			

6.0 Cost Estimates

Another purpose of this study is to estimate the costs to the Postal Service for processing different types of DVD envelopes. Using the results of the web-based and on-site surveys, costs can be estimated both for the outbound trip to the subscriber as well as the return trip back to the DVD rental company. Such cost estimates are developed in this section.

DVD envelopes are generally categorized into two groups based on their processing characteristics:

- Floppy-edge envelopes
- Centralized-disc envelopes

Floppy-edge envelopes have DVDs that are positioned on the leading or trailing edge of the envelope, thus creating unbalanced pieces during processing. Centralized-disc envelopes have the DVD positioned in the middle of the envelope, resulting in two evenly balanced edges.

6.1 Outbound Trip Cost Analysis

6.1.1 Estimation Procedure

As shown in *Table 2*, outbound DVD-by-mail pieces are processed in a variety of ways. Based on these findings, stylized models can be constructed to estimate the costs of processing outbound volumes of both types of DVD envelope. Outbound DVD processing generally follows 6 basic methods:

Letters processing methods

- DBCS processing with DPS
- DBCS processing without DPS
- Manual letters processing

Flats processing methods

- AFSM 100 processing
- UFSM 1000 processing
- Manual flats processing

For each method described above, costs are developed in a manner similar to the Postal Service's methodology used in PRC proceedings.⁶ A series of processing steps is defined. For any given step, work content is determined by first dividing the marginal productivity (pieces per hour) of a step by the average clerk and mail handler wage rate (dollars per hour). The resulting unit cost is then adjusted with premium pay and piggyback factors. The weighted unit cost for a step is determined by the proportional amount of volume flowing through the step. The overall unit cost is equal to summing the weighted unit costs over all steps. Additional non-modeled unit

⁶ For example, see USPS-LR-L-43 and USPS-LR-L-48 in docket no. R2006-1.

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costs are then added to account for BMEU activities, allied and miscellaneous mail processing activities, transportation, casing, and delivery. Finally, CRA controls are applied.

Detailed parameters are required to model the volumes of each step of a processing method. FY 2005 *Postal/One!* volume is partitioned between each of the 6 methods using volume proportions from the web-based survey described in Section 4.0. Flow densities, coverage factors, and automation reject and damage rates are then applied to determine step-specific volumes. Flow densities and coverage factors are taken from studies used in the current and previous PRC proceedings.⁷ Reject and damage rates are developed from the on-site survey described in Section 5.0.

Detailed cost parameters are also needed including clerk and mailhandler average wage rates, operation-specific marginal productivities and piggyback factors, class-specific premium pay factors, unit costs of non-modeled steps,⁸ and CRA proportional adjustment factors. The majority of these parameters are taken from studies of presorted First-Class Mail and Standard Mail used in the on-going PRC proceedings.⁹ Some parameters are developed from presorted First-Class Mail first-ounce increment cost data.

6.1.2 Results

Table 4 below presents the FY 2005 unit cost estimates for outbound DVD volumes by processing method and DVD envelope type.¹⁰ In general, letter-processing methods have a lower unit cost than flats-processing methods. As expected, there is not much difference in the processing cost between floppy-edge and centralized-disc envelopes since both types tend to be processed similarly during the outbound trip to the subscriber.

⁷ See USPS-T-24 in docket no. R2000-1 (presort letter densities), USPS-LR-J-63 in docket no. R2001-1 (flats densities), and USPS-LR-L-44 in docket no. R2006-1 (coverage factors).

⁸ Unit costs for non-modeled steps account for Bulk Mail Entry Unit (BMEU) activities, allied and miscellaneous mail processing activities, transportation (C/S 14) and delivery activities. Unit costs for each of these steps are developed from sources outside the model. Unit costs for BMEU activities and allied/miscellaneous mail processing activities are based on shape-specific cost pool data as found in USPS-LR-L-123. The unit costs for transportation is based on first-ounce letter costs of presorted First-Class Mail letters. Unit costs for casing/delivery activities are taken from USPS-LR-L-67.

⁹ See the following sources from docket no. R2006-1: USPS-LR-L-43 (flats CRA proportional adjustment factor); USPS-LR-L-48 (letters CRA proportional adjustment factor); USPS-LR-L-55 (wages rates and premium pay factors); USPS-LR-L-67 (delivery costs); USPS-LR-L-137 (piggyback factors).

¹⁰ The detailed calculations for each processing method and DVD envelope type are found in the Excel workbooks that accompany this report: "FE Outbound v.xls," "CD Outbound v.xls".

Table 4
Estimates of Outbound Unit Costs (Cents) By Processing Method And DVD Envelope Type

Processing Method	Floppy-Edge Envelope	Centralized-Disc Envelope
Pieces Processed in Letter Operations		
DBCS with DPS	8.42	8.85
DBCS/OCR without DPS	17.02	17.42
Manual Letters	22.64	26.89
Total Letters	11.27	11.15
Pieces Processed in Flats Operations		
AFSM 100	20.60	21.74
UFSM 1000	29.08	33.50
Manual Flats	30.83	34.93
Total Flats	21.21	22.20
Total	12.75	12.23

6.2 Return Trip Cost Analysis

6.2.1 Estimation Procedure

Stylized models can also be constructed to estimate the processing costs of DVD-by-mail pieces being returned to DVD rental companies. As shown in *Table 3*, returning centralized-disc envelopes tend to be processed more on automation equipment than floppy-edge envelopes. As noted in Section 3.4.4, this is because on the return trip DVDs in floppy-edge envelopes are positioned toward the trailing edge which makes these pieces less amenable to automation processing.

Each of the 15 facilities that participated in the on-site survey represents a different DVD processing method. Although some facilities used similar methods, no two facilities used exactly the same method. Because of this variation, it is necessary to construct cost models that are specific to each of the surveyed facilities. Cost results of each facility can then be weighted together to form a national-average unit cost for each type of DVD envelope.¹¹

The steps needed to process returning DVD envelopes are divided into 5 general categories:

- culling prior to or within the automation mail stream
- sorting on automation equipment
- manual sorting
- manual preparation for caller service
- miscellaneous work (damage repair, missort redirection)

¹¹ The weights used to form the national-average unit cost are based on the inverse of the original sampling probabilities for each facility. They are adjusted using the Horvitz-Thompson procedure to ensure unbiased results. This procedure is required for unequal probability samples. See W. G. Cochran, *Sampling Techniques*, 3rd Edition (1977).

For each facility, modeled costs are based on a series of processing steps. Each sampled facility has a different combination of processing steps. For instance, the way DVDs are culled varies by facility. Some facilities cull all DVD envelopes in the collection mail stream prior to induction into the AFCS. Other facilities cull some DVD envelopes prior to AFCS induction while culling others farther down the automation processing stream. Still others cull no DVD envelopes at all, choosing instead to process them all on automation equipment. The way a facility treats the two types of DVD envelopes also varies. Some facilities cull both types at once, creating "jackpotted" DVD containers, and then separate them at a different operation. Other facilities have completely distinct processing methods for each type of envelope. To estimate the proportional volume flows across these processing steps, each facility's on-site survey data is used. Volumes are adjusted based on the facility-specific automation reject rates, missort rates, and damage rates.

Unit costs are developed in a manner similar to the outbound cost models—namely, by combining productivities, wage rates, premium pay factors, and piggyback factors for each processing step at each facility, and then summing the resulting weighted unit costs over all steps. Additional non-modeled unit costs are then included to account for collection activities, allied and miscellaneous mail processing activities, transportation, and caller service pick up.¹² Additional data are developed from First-Class single-piece, first-ounce increment cost data. Finally, a CRA proportional adjustment factor is applied.¹³

An important question to consider is what productivity should be used to determine the work content of culling activities. Unlike the cost models for outbound DVDs—where the majority of the processing steps are associated with automation processes that have well-defined productivities—many of the returning DVDs are culled from the automation mail stream. Such a process has not been closely studied. To our knowledge, there are no measured culling productivities that the Postal Service has developed, nor are there MODS data that exactly measure culling activities. Because of this, proxy productivities must be developed.

There are two ways to think of culling activities. On the one hand, culling may be a very manual process in which employees sift through piles of collection mail as it is loaded onto belts. On the other hand, culling may be a relatively minor job that only involves quickly riffling through mail that has already been prepped for induction onto automation equipment. This suggests a range of productivities depending on the exact point in the mail stream where DVD envelopes are culled. We propose two proxy productivities to represent the extremes of this range:

- Low-End Productivity: 625 pieces per hour (5.76 seconds per piece)
- High-End Productivity: 2,166 pieces per hour (1.67 seconds per piece)

The low-end productivity is developed from the national-average manual sorting productivities as found in MODS. The high-end productivity is developed from the national-average riffling

¹² Mail costs for each of these steps are developed from sources outside the model. Unit costs for collection activities, allied/miscellaneous mail processing activities, and transportation are based on first-ounce letter cost of single-piece First-Class Mail letters. The unit cost of caller service pick up is taken from USPS-LR-L-69.

¹³ CRA proportional adjustment factor is taken from the BRM study found in USPS-LR-L-69 in docket no. R2006-1.

productivity for MODS operation 029. Both productivities are based on FY 2005 data and have been adjusted with their respective variabilities.¹⁴

6.2.2 Results

To estimate the impact of using different proxies for culling activities, we develop three distinct scenarios.¹⁵ *Table 5* reports the results for scenario 1 across each of the 15 sampled facilities.¹⁶ In this scenario, both ends of the productivity range are used. The high-end productivity is used for culling at the feeding stations in automation operations (e.g., AFCS induction, DBCS induction, OCR induction). For culling at all other operations (e.g., dock, collection mail belt, AFCS rejection, hand cancellation), the low-end productivity is used.

¹⁴ The low-end productivity is adjusted using the manual letters cost pool variability (0.69). The high-end productivity is adjusted using the cancellation cost pool variability (0.50). See USPS-T-11 (Table 1) in docket no. R2006-1.

¹⁵ The detailed calculations for each scenario are found in the Excel workbooks that accompany this report. The scenarios for the floppy-edge envelope are found in "FE Return Scenario 1 v.xls," "FE Return Scenario 2 v.xls," and "FE Return Scenario 3 v.xls." The scenarios for the centralized-disc envelope are found in "CD Return Scenario 1 v.xls," "CD Return Scenario 2 v.xls," and "CD Return Scenario 3 v.xls."

¹⁶ Facilities in Madison, WI and Milwaukee, WI have also been included in the return cost results. Data from these facilities were collected during the preliminary site visits. Because these two facilities were not part of the set of 15 randomly selected facilities, their Horwitz-Thompson weights are set to 1.00, meaning that they are self weighted and do not represent any other (non-sampled) facilities in the country.

Table 5
Estimates of Return Unit Costs (Cents)
By Facility And DVD Envelope Type

**Scenario 1: High-End Productivity Used At Some Culling Points,
 Low-End Productivity Used At Other Culling Points**

Facility	Floppy-Edge Envelope	Centralized-Disc Envelope
Orlando	40.07	40.06
Tampa	13.59	11.90
Lake Mary	23.78	28.75
Los Angeles	27.17	23.29
Oxnard	31.26	21.34
Santa Barbara	26.51	22.72
Abilene	28.30	18.93
Midland	19.69	16.20
El Paso	43.62	41.72
Madison	23.47	N/A
Milwaukee	27.79	N/A
Chicago	27.38	17.29
Carol Stream	27.56	32.88
Palatine	26.40	27.05
Kilmer	23.58	17.20
Southeastern	23.76	27.92
Baltimore	26.51	21.89
Total	27.68	25.20

Referring to the bottom of *Table 5*, the national-average unit cost is 27.68 cents for floppy-edge envelopes and 25.20 cents for centralized-disc envelopes. It is notable that, with the exception of a few facilities (Tampa, El Paso, Orlando), the distribution of unit costs across facilities for each envelope type is fairly compact. This is expected to some degree. Because the same set of processing productivities is applied to each facility, variation in unit costs is driven only by the mix in volume across processing steps. Thus, for each envelope type, the biggest cost differences occur between facilities that use automation to process the vast majority of DVDs versus those that cull the vast majority of DVDs and process them manually.

To measure how sensitive these models are to these proxy culling rates, the models can be reconfigured to produce the maximum and minimum national-average unit costs. Scenario 2 assumes the high-end productivity at all culling points, while scenario 3 assumes the low-end productivity at all culling points. These two scenarios are presented in *Table 6* and *Table 7*, respectively.

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Table 6
Estimates of Return Unit Costs (Cents)
By Facility And DVD Envelope Type

Scenario 2: High-End Productivity Used At All Culling Points

Facility	Floppy-Edge Envelope	Centralized-Disc Envelope
Orlando	26.42	26.41
Tampa	13.14	11.90
Lake Mary	16.67	15.10
Los Angeles	20.10	18.31
Oxnard	19.00	18.41
Santa Barbara	17.88	18.93
Abilene	22.19	18.93
Midland	19.69	16.20
El Paso	32.56	32.49
Madison	18.32	N/A
Milwaukee	17.95	N/A
Chicago	18.51	15.74
Carol Stream	21.03	21.89
Palatine	20.91	22.41
Kilmer	19.29	14.82
Southeastern	21.07	21.50
Baltimore	20.91	17.85
Total	20.59	19.50

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Table 7
Estimates of Return Unit Costs (Cents)
By Facility And DVD Envelope Type

Scenario 3: Low-End Productivity Used At All Culling Points

Facility	Floppy-Edge Envelope	Centralized-Disc Envelope
Orlando	40.07	40.06
Tampa	13.75	11.90
Lake Mary	23.78	28.75
Los Angeles	28.92	23.29
Oxnard	31.83	26.71
Santa Barbara	27.97	22.72
Abilene	30.58	18.93
Midland	27.53	16.20
El Paso	44.55	44.22
Madison	28.51	N/A
Milwaukee	28.20	N/A
Chicago	28.75	17.29
Carol Stream	34.65	35.34
Palatine	33.65	34.61
Kilmer	26.84	18.85
Southeastern	33.40	33.63
Baltimore	30.87	24.06
Total	30.33	26.84

The range of national-average unit cost runs from a minimum of 20.59 cents to a maximum of 30.33 cents for floppy-edge envelopes, and from a minimum of 19.50 cents to a maximum of 26.84 cents for centralized-disc envelopes. Notice that the gap between the national-average unit cost between the two envelope types is bigger for scenario 3 (3.5 cents) than for scenario 2 (1.1 cents). This is because centralized-disc envelopes are not culled as much as floppy-edge envelopes. This has a greater cost savings in scenario 3, where culling is based on a slower, more expensive productivity than in scenario 2.

Appendix A: Web-Based Survey Questionnaire

Thank you for agreeing to complete our survey on DVD-by-mail.

The survey shouldn't take more than about 15 minutes to complete.

We hope you complete this survey in one session. If you cannot, you can re-enter by clicking the link again.

To access the survey, type your finance number in the box below.
(Enter the first two digits in the first box and the remaining four digits in the second box.)

My finance number is:

____ - ____

Does your facility process destinating mail?
Please select only one

- Yes
- No

(If the response is "Yes")

The questions in this section of the survey pertain to processing of **outbound DVDs**.

By outbound DVDs, we mean DVDs going from the rental company (Blockbuster, Netflix, etc.) to the viewer.

OUTBOUND QUESTIONS BEGIN HERE

Does your facility process [NF BB GF] **outbound DVDs**? (Note: noticeable amount of GF?)
Please select only one

- Yes
- No

Question 1: How do [NF BB GF] **outbound DVDs** arrive for processing at your facility?
Please select all that apply

- NF BB GF Presort trays from [NF BB GF] (BMEU-entered or drop shipped)
- NF BB GF Presort trays from other mail processing facilities
- NF BB GF Commingled trays from other mail processing facilities
- NF BB GF Other (please specify in box below) _____

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Question 2: How do you process the majority of [NF BB GF] outbound DVDs?

Please select only one

- NF BB GF DBCS / BCS Operations
- NF BB GF MLOCR Operations
- NF BB GF AFSM 100 Operations
- NF BB GF UFSM 1000 Operations
- NF BB GF SPBS / LIPS / APPS Operations
- NF BB GF Manual Letter Operations
- NF BB GF Manual Flat Operations
- NF BB GF Other (please specify in box below) _____

(If the response to Question 2 is "DBCS")

Question 2a: Do you DPS the majority of [NF BB GF] outbound DVDs?

Please select only one

- NF BB GF Yes
- NF BB GF No

(If the response to Question 2 is "Manual Letter or Manual Flat")

Question 2b: Why are [NF BB GF] outbound DVDs processed manually?

Please select all that apply

- NF BB GF [NF BB GF] has asked that we process them manually
- NF BB GF [NF BB GF] outbound DVDs don't run well on machinery

(If the response to Question 2b is "don't run well on machinery")

Question 2b.1: Why don't [NF BB GF] outbound DVDs run well on machinery?

Please select all that apply

- NF BB GF They jam the machines
- NF BB GF They are damaged on the machines
- NF BB GF They are missorted on the machines
- NF BB GF They cause other mail to be missorted on the machines
- NF BB GF Other (please specify in box below) _____

Question 3: Are containers of [NF BB GF] outbound DVDs cross-docked to another mail processing facility?

Please select only one

- NF BB GF Yes
- NF BB GF No

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(If the response to Question 3 is "A")

Question 3a: For which destination facilities do you cross-dock containers of [NF BB GF] outbound DVDs? Please enter up to 8 facilities

_____	_____
_____	_____
_____	_____
_____	_____

Question 4: How are the majority of damaged [NF BB GF] outbound DVDs or envelopes treated in your facility? Please select only one

- | | |
|----------|---|
| NF BB GF | Repaired and returned to the mail stream |
| NF BB GF | Returned to [NF BB GF] for resubmission |
| NF BB GF | Damage is not an issue |
| NF BB GF | Other (please specify in box below) _____ |

(If the response to Question 4 is "repaired and returned to the mail stream")

Question 4a: Where are the majority of repairs to damaged [NF BB GF] outbound DVDs or envelopes made? Please select only one

- | | |
|----------|---|
| NF BB GF | Rewrap |
| NF BB GF | Sorting operations where damage occurred |
| NF BB GF | Other (please specify in box below) _____ |

(If the response to Question 4 is "returned to mailer for resubmission")

Question 4b: Is [NF BB GF] charged to resubmit damaged outbound DVDs? Please select only one

- | | |
|----------|--|
| NF BB GF | [NF BB GF] is not charged |
| NF BB GF | [NF BB GF] is charged only for outbound postage |
| NF BB GF | [NF BB GF] is charged for both outbound and return postage |

Question 5: What types of damage to [NF BB GF] outbound DVDs or envelopes are common in your facility? Please select all that apply

- | | |
|----------|------------------|
| NF BB GF | Torn envelopes |
| NF BB GF | Empty envelopes |
| NF BB GF | DVDs are exposed |
| NF BB GF | DVDs are loose |
| NF BB GF | DVDs are broken |

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Question 6: Please provide any additional comments that will help us understand how you process [NF BB GF] outbound DVDs. Please type comment in box below

OUTBOUND QUESTIONS END HERE

Does your facility process originating mail? Please select only one

- Yes
- No

(If the response is "Yes")

The questions in this section of the survey pertain to processing of return DVDs.

By return DVDs, we mean DVDs on the return trip from the viewer to the rental company (Blockbuster, Netflix, etc.)

RETURN QUESTIONS BEGIN HERE

Do you have a dedicated manual unit that prepares trays of return DVDs?
Please select only one

- Yes
- No

(If the response is "Yes")

What MODS operation are the employees in the dedicated manual unit clocked into?
Please type 3-digit code in box below

_____ 3-digit MODS code

(If the response is "Yes")

How many hours were spent in this dedicated manual unit during the last week?
Please type number of hours in the box below

_____ hours last week

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Does your facility process [NF BB GF] return DVDs? (Note: noticeable amount of GF?)
Please select only one

- Yes
- No

Question 1: Are efforts made to separate [NF BB GF] return DVDs from other collection mail at your facility?

NF BB GF	Yes
NF BB GF	No

(If the response to Question 1 is "Yes")

Question 1a: At what point are [NF BB GF] return DVDs separated from other collection mail?
Please select all that apply

NF BB GF	At the stations / branches
NF BB GF	In dock operations
NF BB GF	In 010 / 020 operations
NF BB GF	In automation operations (DBCS, MLOCR, AFSM 100, etc.)
NF BB GF	Other (please specify in box below) _____

Question 2: Are the majority of [NF BB GF] return DVDs that arrive in your collection mail sorted on automation equipment (other than the AFCS)?
Please select only one

NF BB GF	Yes
NF BB GF	No

(If the response to Question 2 is "Yes")

Question 2a: On what automation equipment do you process the majority of [NF BB GF] return DVDs? Please select only one

NF BB GF	DBCS / BCS
NF BB GF	MLOCR
NF BB GF	AFSM 100
NF BB GF	UFSM 1000
NF BB GF	SPBS / LIPS / APPS
NF BB GF	Other (please specify in box below) _____

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(If the response to Question 2 is "No")

Question 2b: Why are [NF BB GF] return DVDs processed manually?
Select all that apply

- | | |
|----------|--|
| NF BB GF | [NF BB GF] has asked that we process them manually |
| NF BB GF | [NF BB GF] return DVDs don't run well on machinery |

(If the response to Question 2b is "don't run well on machinery")

Question 2b.1: Why don't [NF BB GF] return DVDs run well on machinery?
Please select all that apply

- | | |
|----------|---|
| NF BB GF | They jam the machines |
| NF BB GF | They are damaged on the machines |
| NF BB GF | They are missorted on the machines |
| NF BB GF | They cause other mail to be missorted on the machines |
| NF BB GF | Other (please specify in box below) _____ |

Question 3: Do [NF BB GF] return DVDs arrive at your facility from other mail processing facilities? *Please select only one*

- | | |
|----------|-----|
| NF BB GF | Yes |
| NF BB GF | No |

(If the response to Question 3 is "Yes")

Question 3a: How are [NF BB GF] return DVDs that arrive from other facilities prepared?
Please select all that apply

- | | |
|----------|---|
| NF BB GF | Direct [NF BB GF] trays / containers |
| NF BB GF | Commingled with other mail in manual trays / containers |
| NF BB GF | Commingled with other mail in automation trays / containers |

(If the response to Question 3a is "direct trays")

Question 3a.1: What type of direct containers do [NF BB GF] return DVDs commonly arrive in from other facilities? *Please select all that apply*

- | | |
|----------|-------------------------------------|
| NF BB GF | MM trays |
| NF BB GF | EMM trays |
| NF BB GF | Flat tubs |
| NF BB GF | Other (please specify in box below) |

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(If the response to Question 3a is "B" or "C")

Question 3a.2: Where do the majority of commingled containers of [NF BB GF] return DVDs from other facilities commonly enter your facility's mail processing stream?
Please select only one

- NF BB GF DBCS / BCS Operations
- NF BB GF MLOCR Operations
- NF BB GF AFSM 100 Operations
- NF BB GF UFSM 1000 Operations
- NF BB GF SPBS / LIPBS / APPS Operations
- NF BB GF Manual Letter Operations
- NF BB GF Manual Flat Operations
- NF BB GF Other (please specify in box below) _____

Question 4: How do [NF BB GF] return DVDs leave your facility?
Please select only one

- NF BB GF Picked up by [NF BB GF] from caller service
- NF BB GF Dispatched to another mail processing facility

(If the response to Question 4 is "dispatched to another facility")

Question 4a: Do you prepare direct trays of [NF BB GF] return DVDs for another facility?
Please select only one

- NF BB GF Yes
- NF BB GF No

(If the response to Question 4a is "Yes")

Question 4a.1: Which facility (facilities) do you prepare direct [NF BB GF] trays of return DVDs for? Please enter up to 4 facilities

(If the response to Question 4a is "Yes")

Question 4a.2: How are direct trays of [NF BB GF] return DVDs prepared?
Please select all that apply

- NF BB GF DVD envelopes are faced
- NF BB GF DVD envelopes have been riffled for accuracy
- NF BB GF Trays / containers have been sleeved
- NF BB GF Other (please specify in box below) _____

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(If the response to Question 4 is "caller service")

Question 4b: How are [NF BB GF] return DVDs prepared for caller service pick-up?
Please select all that apply

- NF BB GF DVD envelopes are faced
- NF BB GF DVD envelopes have been riffled for accuracy
- NF BB GF Trays / containers have been sleeved
- NF BB GF Other (please specify in box below) _____

Question 5: Where are the majority of repairs to damaged [NF BB GF] return DVDs or envelopes made? Please select only one

- NF BB GF Rewrap
- NF BB GF Sorting operations where damage occurred
- NF BB GF Damage is not an issue
- NF BB GF No attempt is made to repair DVDs or envelopes
- NF BB GF Other (please specify in box below) _____

Question 6: What types of damage to [NF BB GF] return DVDs or envelopes are common in your facility? Please select all that apply

- NF BB GF Torn envelopes
- NF BB GF Empty envelopes
- NF BB GF DVDs are exposed
- NF BB GF DVDs are loose
- NF BB GF DVDs are broken

Question 7: Does your facility always sort [NF BB GF] return DVDs to the mailing address on the piece? Please select only one

- NF BB GF Yes
- NF BB GF No

Question 8: Please provide any additional comments that will help us understand how you process [NF BB GF] return DVDs?
Please type comment in box below

RETURN QUESTIONS END HERE

Thank you for completing this survey.

Simply close your browser or point your browser to another page.

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Appendix B: Web-Based Survey Results

Table B-1
Summary of Responses to Introductory Questions on DVD-by-Mail Web Survey

Question	Answer	Responses
Does your facility process destinating mail?	No	19
	Yes	329
Does your facility process originating mail?	No	38
	Yes	310
Do you have a dedicated manual unit that prepares trays of return DVDs?	No	218
	Yes	92

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Mail Characteristics Study of DVD-by-Mail

Table B-2
Summary of Responses to Outbound (Rental Company to Viewer) DVD Questions on Web Survey

Question	Answer	Responses		
		NF	BB	GF ¹⁷
Does your facility process outbound DVDs ¹⁸ ?	No	94	134	312
	Yes	234	195	16
How do outbound DVDS arrive for processing at your facility?	Presort trays from [NF BB GF]	80	39	4
	Presort trays from other processing facilities	73	53	6
	Commingled from other processing facilities	122	124	10
	Other	2	4	2
How do you process the majority of outbound DVDs?	DBCS/BCS	135	127	7
	MLOCR	13	8	0
	AFSM 100	26	15	6
	UFSM 1000	7	5	1
	SPBS/LIPS/APPS	1	1	0
	Manual Letter	38	28	0
	Manual Flat	3	2	1
	Other	1	1	1
Do you DPS the majority of outbound DVDs?	No	14	13	0
	Yes	123	115	7
Why are outbound DVDs processed manually?	[NF BB GF] has asked for manual processing	9	4	0
	Outbound DVDs don't run well on machinery	37	30	1
Why don't outbound DVDs run well on machinery?	They jam the machines	23	17	1
	They are damaged on the machines	26	17	1
	They are missorted on the machines	8	5	0
	They cause other mail to be missorted	8	4	0
	Other	2	4	0
Are containers of outbound DVDs cross-docked to another MP facility?	No	186	175	14
	Yes	48	20	2
How are the majority of damaged outbound DVDs or envelopes treated in your facility?	Repaired and returned to the mail stream	126	99	7
	Returned to [NF BB GF] for resubmission	23	14	0
	Damage is not an issue	77	75	7
	Other	5	3	2
	Sent to another postal facility	2	2	0
Where are the majority of repairs to damaged outbound DVDs or envelopes made?	Rewrap	89	71	4
	Sorting operations where damage occurred	21	15	2
	Other	4	4	1
	Manual	4	3	0
	Nixie	6	5	0
Is [NF BB GF] charged to resubmit damaged outbound DVDs?	[NF BB GF] is not charged	15	9	0
	[NF BB GF] is charged only for outbound trip	1	0	0
	[NF BB GF] is charged for round-trip postage	6	5	0

¹⁷ NF = Netflix, BB = Blockbuster, GF = Gamefly

¹⁸ For Gamefly, this question was phrased "Does your facility process a noticeable amount of Gamefly outbound DVDs?"

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Mail Characteristics Study of DVD-by-Mail

Table B-2 (continued)

Summary of Responses to Outbound (Rental Company to Viewer) DVD Questions on Web Survey

Question	Answer	Responses		
		NF	BB	GF
What types of damage to outbound DVDs or envelopes are common in your facility?	Torn envelopes	152	116	8
	Empty envelopes	35	22	1
	DVDs are exposed	36	24	2
	DVDs are loose	25	14	1
	DVDs are broken	30	15	1

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Mail Characteristics Study of DVD-by-Mail

Table B-3
Summary of Responses to Return (Viewer to Rental Company) DVD Questions on Web Survey

Question	Answer	Responses		
		NF	BB	GF ¹⁹
Does your facility process return DVDs ²⁰ ?	No	23	69	293
	Yes	287	240	16
Are efforts made to separate return DVDs from other collection mail at your facility?	No	44	116	7
	Yes	243	124	9
At what point are return DVDs separated from collection mail?	At the stations/branches	68	33	3
	In dock operations	47	25	3
	In 010/020 operations	205	100	6
	In automation operations (DBCS,FSM,etc.)	106	45	3
	Other	19	7	2
Are the majority of return DVDs that arrive in collection mail run on automation equipment?	No	207	98	3
	Yes	80	142	13
On what automation equipment do you process the majority of return DVDs?	DBCS/BCS	65	126	5
	MLOCR	4	5	0
	AFSM 100	6	7	8
	UFSM 1000	2	2	0
	SPBS/LIPS/APPS	0	0	0
	Other	2	1	0
Why are return DVDs processed manually?	[NF BB GF] has asked for manual processing	67	17	1
	Return DVDs don't run well on machinery	158	80	2
Why don't return DVDs run well on machinery?	They jam the machines	99	48	0
	They are damaged on the machines	103	49	1
	They are missorted on the machines	35	17	0
	They cause other mail to be missorted	48	17	0
	Other	13	6	1
Do return DVDs arrive at your facility from other mail processing facilities?	No	158	151	9
	Yes	129	89	7
How are return DVDs that arrive from other facilities prepared?	Direct trays/containers	42	14	1
	Commingled with other mail in manual trays	80	63	3
	Commingled with other mail in auto trays	62	46	4
What type of direct containers do return DVDs commonly arrive in from other facilities?	MM trays	10	7	1
	EMM trays	31	12	0
	Flat tubs	11	3	0
	Other	1	0	0
Where do the majority of commingled containers of return DVDs from other facilities commonly enter your facility's mail processing stream?	DBCS/BCS Operations	37	44	4
	MLOCR Operations	3	1	0
	AFSM 100 Operations	8	2	1
	UFSM 1000 Operations	3	1	0
	SPBS/LIPS/APPS Operations	0	1	0
	Manual Letter Operations	33	20	1
	Manual Flat Operations	6	2	0
How do return DVDs leave your facility?	Other	13	11	0
	Picked up by [NF BB GF] from caller service	73	27	1
	Dispatched to another mail processing facility	214	212	15

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¹⁹ NF = Netflix, BB = Blockbuster, GF = Gamefly

²⁰ For Gamefly, this question was phrased "Does your facility process a noticeable amount of Gamefly return DVDs?"

Mail Characteristics Study of DVD-by-Mail

Table B-3 (continued)

Summary of Responses to Return (Viewer to Rental Company) DVD Questions on Web Survey

Question	Answer	Responses		
		NF	BB	GF
Do you prepare direct trays of return DVDs for another facility?	No	98	163	15
	Yes	116	49	0
How are direct trays of return DVDs prepared?	DVD envelopes are faced	84	37	0
	DVD envelopes have been riffled for accuracy	64	23	0
	Trays/Containers have been sleeved	89	38	0
	Other	2	0	0
How are return DVDs prepared for caller service pick-up?	DVD envelopes are faced	54	21	1
	DVD envelopes have been riffled for accuracy	56	22	1
	Trays/containers have been sleeved	50	18	1
	Other	3	0	0
Where are the majority of repairs to damaged return DVDs or envelopes made?	Rewrap	134	104	3
	Sorting operations where damage occurred	30	24	2
	Damage is not an issue	92	93	11
	No attempt is made to repair DVD envelopes	15	7	0
	Other	6	4	0
	Manual	2	2	0
What types of damage to return DVDs or envelopes are common in your facility?	Nixie	8	6	0
	Torn envelopes	178	135	5
	Empty envelopes	53	33	0
	DVDs are exposed	47	32	1
	DVDs are loose	40	25	0
	DVDs are broken	40	25	0
Does your facility always sort return DVDs to the mailing address on the piece?	No	70	24	1
	Yes	217	216	15

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Appendix C: On-Site Data Collection Forms

On-Site Data Collection Form: Machine Statistics

Surveyor's Initials		3	Date	
Facility Name		4	Sheet #	

[Please Use One Form per Piece of Equipment per Session]

DVD Trip Direction: [Circle One] Outbound Return
 Equipment Type: [Circle One] AFCS AFSM 100 DBCS DBCS-EC FSM 1000 OCR

Time at Machine: (hh:mm:ss)

Start Time:	:	:
End Time:	:	:

Total Number of DVDs Run:

NF	
BB	
GF	

Units Used [Circle 1]

Pieces	Inches
Pieces	Inches
Pieces	Inches

Number of Rejected DVDs:

NF	
BB	
GF	

Pieces	Inches
Pieces	Inches
Pieces	Inches

Number of Damaged DVD Pieces:

NF	
BB	
GF	

Missorts: Non-DVD Pieces in Dedicated DVD Bin DVD Pieces in Wrong Bins

NF		
BB		
GF		

Jam Reports:

Cause of Jam: [Circle One]	Time to Fix Jam: (hh:mm:ss)		# Pieces Damaged by Jam:	
	Start Time:	End Time:	Non-DVD	DVD
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		
NF BB GF Non-DVD	: : :	: : :		

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On-Site Data Collection Form - Processing Flow Counts - NETFLIX

Facility:		Date:	
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Location of Count (circle one): Caller Service P.O. Boxes Manual Prep Unit Processing Floor

Separation Point	Count:	Units	Total
Stations / Branches		Pieces Inches	
Dock Operations		Pieces Inches	
Opening Unit / Culling Belt		Pieces Inches	
Pre-AFCS		Pieces Inches	
AFCS Rejects		Pieces Inches	
Post-AFCS		Pieces Inches	
Pre-DBCS		Pieces Inches	
Post-DBCS		Pieces Inches	
Pre-MLOCR		Pieces Inches	
Post-MLOCR		Pieces Inches	
Pre-AFSM 100		Pieces Inches	
Post-AFSM 100		Pieces Inches	
Pre-UFSM 1000		Pieces Inches	
Post-UFSM 1000		Pieces Inches	
Rewrap		Pieces Inches	
Unknown Source		Pieces Inches	

On-Site Data Collection Form - Processing Flow Counts - BLOCKBUSTER

Facility:		Date:	
-----------	--	-------	--

Location of Count (circle one): Caller Service P.O. Boxes Manual Prep Unit Processing Floor

Separation Point	Count:	Units	Total
Stations / Branches		Pieces Inches	
Dock Operations		Pieces Inches	
Opening Unit / Culling Belt		Pieces Inches	
Pre-AFCS		Pieces Inches	
AFCS Rejects		Pieces Inches	
Post-AFCS		Pieces Inches	
Pre-DBCS		Pieces Inches	
Post-DBCS		Pieces Inches	
Pre-MLOCR		Pieces Inches	
Post-MLOCR		Pieces Inches	
Pre-AFSM 100		Pieces Inches	
Post-AFSM 100		Pieces Inches	
Pre-UFSM 1000		Pieces Inches	
Post-UFSM 1000		Pieces Inches	
Rewrap		Pieces Inches	
Unknown Source		Pieces Inches	

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Mail Characteristics Study of DVD-by-Mail

On-Site Data Collection Form - Processing Flow Counts – GAMEFLY

Facility:		Date:	
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Location of Count (circle one): Caller Service P.O. Boxes Manual Prep Unit Processing Floor

Separation Point	Count:	Units	Total
Stations / Branches		Pieces Inches	
Dock Operations		Pieces Inches	
Opening Unit / Culling Belt		Pieces Inches	
Pre-AFCS		Pieces Inches	
AFCS Rejects		Pieces Inches	
Post-AFCS		Pieces Inches	
Pre-DBCS		Pieces Inches	
Post-DBCS		Pieces Inches	
Pre-MLOCR		Pieces Inches	
Post-MLOCR		Pieces Inches	
Pre-AFSM 100		Pieces Inches	
Post-AFSM 100		Pieces Inches	
Pre-UFSM 1000		Pieces Inches	
Post-UFSM 1000		Pieces Inches	
Rewrap		Pieces Inches	
Unknown Source		Pieces Inches	