

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

POSTAL RATE AND FEE CHANGES, 2006

Docket No. R2006-1

RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS McCRERY
TO INTERROGATORIES OF VALPAK DIRECT MARKETING SYSTEMS, INC.,
AND VALPAK DEALERS' ASSOCIATION, INC.
[VP/USPS-T42-15-25]
(June 15, 2006)

The United States Postal Service hereby provides its responses to the above-listed interrogatories of Valpak Direct Marketing Systems, Inc., and Valpak Dealers' Association, Inc., filed on June 1, 2006. Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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VP/USPS-T42-15.

Please refer to your response to VP/USPS-T42-1.

- a. Do any of the 1,083 AFCS machines discussed in your response to that interrogatory have any significant differences as regards throughput rates, MODS productivity rates, or capacity?
- b. Unless your response to preceding part a is negative, please provide a brief description of the extent or range of such differences in throughput rates and productivity for the 1,083 AFCS machines now deployed.
- c. Unless your response to preceding part a is negative, please discuss the correlation, if any, between (i) deployment of AFCS machines with lower throughput rates or lower MODS productivity rates, and (ii) smaller postal facilities.

RESPONSE:

a - c. No, AFCS capabilities do not differ significantly. However, note that other factors like daily preventative maintenance, site-specific work practices, cross-clocking by employees, volume and the arrival profile of mail, size and shape of facility, etc. can cause differences in throughput and productivity. Data by machine are not available for establishing a correlation between deployment of AFCS machines with lower throughput and MODS productivity rates and smaller postal facilities.

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VP/USPS-T42-16.

Please refer to your response to VP/USPS-T42-3.

a. Do any of the more than 5,200 DBCS machines discussed in your response to that interrogatory have any significant differences as regards throughput rates, MODS productivity rates, or capacity?

b. Unless your response to preceding part a is negative, please provide a brief description of the extent or range of such differences in throughput rates and productivity for the 5,200 DBCS machines now deployed.

c. Unless your response to preceding part a is negative, please discuss the correlation, if any, between (i) deployment of DBCS machines with lower throughput rates or lower MODS productivity rates, and (ii) smaller postal facilities.

RESPONSE:

a. Yes

b - c. Generally speaking, the throughputs of our DBCS machines are similar.

However, there are a small number (94) of the newer DBCS machines that have expanded capabilities to augment processing, generally at larger facilities, allowing them to process a wider range of mail, e.g. thicker mail pieces. These expanded capability machines are able to process machineable letter mail, a portion of the previously non-machineable (i.e., manually sorted) letter mail, and a mixture of these two mail types. The expected throughput of the expanded capability machines is the same as our other DBCS machines when processing machineable letter mail. However, the expected throughput declines substantially when the machine is used to process manual mail or a mixture of machineable and manual mail. See histogram attached to response VP/USPS-T12-4b for the range of productivity rates.

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Also, the number of output bins on a DBCS ranges from 158 to 302 based upon local site requirements. Productivity can be affected by the number of output bins due to varied sweeping requirements.

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VP/USPS-T42-17.

Please refer to your response to VP/USPS-T42-4.

- a. Do any of the more than 534 AFSM 100 machines discussed in your response to that interrogatory have any significant differences as regards throughput rates, MODS productivity rates, or capacity?
- b. Unless your response to preceding part a is negative, please provide a brief description of the extent or range of such differences in throughput rates and productivity for the 534 AFSM 100 machines now deployed.
- c. Unless your response to preceding part a is negative, please discuss the correlation, if any, between (i) deployment of AFSM 100 machines with lower throughput rates or lower MODS productivity rates, and (ii) smaller postal facilities.

RESPONSE:

- a. Generally speaking, the base AFSM 100 machines are similar and no significant differences exist. However, enhancements that are currently being added to some of the AFSM 100s are expected to decrease staffing requirements and increase throughput.
- b. We are in the process of retrofitting some of our AFSM 100 machines with Automatic Tray Handling Systems (ATHS) and/or Automatic Induction (AI) Systems. Both of these enhancements are expected to increase AFSM 100 productivities (through reduced staffing requirements) and the AI System is also expected to increase machine throughput. See USPS-T42, pages 16 and 17 of my testimony for more information on AI Systems and ATHS.
- c. See response to (a).

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VP/USPS-T42-18.

Please refer to your responses to VP/USPS-T42-5 and 6. In your response to VP/USPS-T42-5, the FY 2005 MODS productivity for DBCSs is 8,349 pieces per hour, while throughput is 18,000 pieces per labor hour; *i.e.*, productivity of the DBCS is only about 45.1 percent of throughput. In your response to VP/USPS-T42-6, the FY 2005 MODS productivity for the AFSM 100 is 2,035 pieces per hour, while throughput is 3,400 pieces per labor hour; *i.e.*, productivity of the AFSM 100 is 59.9 percent of throughput. Please explain why the ratio of productivity to throughput for the DBCS machine (45.1 percent) is so much lower than the ratio for the AFSM 100 (59.9 percent).

RESPONSE:

The differences in the ratio of productivity to throughput per labor hour are due to the distinct fixed costs of the two equipment types. For example, as stated on page 15, line 15 of my testimony in docket No. R2006-1 and page 13, line 3 of my testimony in docket No. R2005-1, "Unlike letter sorting equipment which sorts to bins, all FSMs sort mail directly into flat trays". Transferring letters from bins to trays adds significant time for sort scheme change-over on the DBCS. This activity does not impact throughput, but decreases productivity for DBCSs. Other factors include number of bins to be swept (*i.e.* 190-220 for DBCSs as opposed to 120 for AFSM 100s), presence or absence of tray take-away system, different jam rates, etc., all of which contribute towards the difference of the ratios.

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VP/USPS-T42-19.

Please refer to your response to VP/USPS-T42-7.

- a. Would you expect Periodicals to account for as much as 5 percent of the mail processed in the cancellation cost pool? If not, what would be a reasonable ballpark estimate for the percentage of mail in the cancellation cost pool represented by Periodicals?
- b. Would you expect Standard Mail to account for as much as 5 percent of the mail processed in the cancellation cost pool? If not, what would be a reasonable ballpark estimate for the percentage of mail in the cancellation cost pool represented by Standard Mail?
- c. Would you expect parcel-rated mail, including BPM, Media Mail and Library Mail, to account for as much as 5 percent of the mail processed in the cancellation cost pool? If not, what would be a reasonable ballpark estimate for the percentage of mail in the cancellation cost pool represented by parcel-rated mail?
- d. The work hours recorded to Operation Number 017, Cancelling Operations Misc., account for almost 32 percent of the total work hours shown in your responses to VP/USPS-T42-7(b) and (c). Please describe the major activities that take place in this operation.

RESPONSE:

- a. No, a reasonable ballpark estimate would be less than 1%.
- b. No, a reasonable ballpark estimate would be considerably less than 5%.
- c. No, a reasonable ballpark estimate would be less than 1%.
- d. Operation 017 is specifically for activities that include: movement of mail into the unit; setting up MTE for use in these operations; dumping, culling, facing, and containerizing mail on belts, conveyors, or tables at or around canceling equipment; facing and containerizing loose or non-machinable mail; repair of damaged mail pieces generated by cancellation operations; and preparing short-paid mail for processing.

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VP/USPS-T42-20.

In Docket No. R2001-1, witness Kingsley testified that “subject to practical requirements such as transportation costs and the need to make the best use of our existing space, **we prefer larger plants.**” USPS-T-39, p. 29, ll. 10-12 (emphasis added).

- a. Do you concur generally with this statement by witness Kingsley?
- b. Do you have any reservations about this statement by witness Kingsley? If so, please state each reservation briefly.
- c. Please provide references to all studies that have been conducted within the last 10 years, either by the Postal Service or by any other organization, that analyze how unit cost (or productivity) varies in relation to size of mail processing plants.
- d. Of the references provided in response to preceding part c, please indicate each study that supports the assertion that larger mail processing plants are more efficient to operate, and have lower unit mail processing costs, than smaller mail processing plants.
- e. Aside from formal studies discussed in response to preceding parts c and d, what other evidence are you aware of that supports the conclusion that larger plants are more economical and efficient to operate than smaller plants? Please explain.

RESPONSE:

a. Yes.

b. No.

c-d. Plant size can be measured in terms of number of employees, square feet of floor space, pieces sorted (i.e. TPH) and unique pieces sorted (i.e. FHP), among others. To the best of my knowledge, none of these attempts progressed to the point of a “study” providing an analytically useful explanation for the differences in productivity among our existing plants. The General Accountability Office (GAO) published a report in 2005 concerning USPS operations strategies. (See GAO-05-261, also available as USPS-LR-N2006-1/7.) On pages 28 through 34 of the report, the GAO discusses productivity variations among plants. Although more anecdotal than analytic, the GAO report notes that there

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are many reasons -- none definitive -- why productivities differ among plants.

Figure 12 of their report, like the histogram attached to VP/USPS-T12-4b, is typical and shows that, although the average productivity of large plants is less than the average for small plants, many large plants are significantly more productive than numerous smaller plants. This suggests the presence of underlying reasons that are related to facility size in only a minor and coincidental fashion. Such factors include unpredictable volume arrival times due to traffic congestion, less efficient plant layout due to space constraints and land costs, and added network sorting responsibilities. The Postal Service builds plants where such factors are present because they must be there to provide adequate service in that geographic area. Many such plants are large, but their size certainly does not cause the factors underlying their productivity.

Of course, if you are referring to changes in productivity at individual plants as volume increases or decreases at the same plant, there is the vast literature on volume variability, beginning with R1997-1 and culminating in witness Bozzo's testimony in this case, that you can access. But that is a different matter entirely.

e. As discussed in the last section of Ms. Kingsley's R2000-1 testimony, the decision to construct a plant is a painstaking process that considers the space needs and service requirements of each area. This careful balancing of all the factors involved in each unique case does in actual fact lead to construction of some large facilities -- a surprising outcome if smaller facilities were, everything else equal, more economical and efficient. Conversely, we can consider what

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does NOT happen. If smaller plants were truly more economical and efficient merely by virtue of their size, then we could choose a high-cost large plant and reduce unit costs by simply subdividing the building into two smaller plants, each staffed and managed separately. The very absurdity of this proposal is evidence in itself.

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VP/USPS-T42-21.

Please refer to Docket No. R2001-1, USPS-T-39, page 31, lines 1-2, where witness Kingsley has a table showing the effect of daily sort plan changes in automated and mechanized distribution operations at two facilities (A and B, say).

- a. Are you able to separate the data in that table and provide them for each of those of the two facilities individually?
- b. If so, please provide it in two separate tables in the same format used by witness Kingsley.
- c. Do you have available any other data which show the number of daily sort plan changes in distributions on DBCS machines at facilities with different numbers of DBCS machines (as discussed in your response to VP/USPS-T42-3)? If so, please provide such data, and indicate whether the number of daily sort plan changes declines as the number of DBCS machines within the facility increases.
- d. With respect to a comparison between automated mail processing in smaller facilities with only a few sorting machines versus larger facilities with greater volume of mail and more sorting machines, please cite all evidence of which you are aware showing that larger facilities with more volume and more machines have either (i) fewer scheme changes, or (ii) longer average run times between scheme changes, or (iii) both fewer scheme changes and longer run times.

RESPONSE:

a. Yes.

b. The Effect of Daily Sort Plan Changes in Mechanized Distribution Operations at Facility A

	Flat Sorting Machines(1)	Letter Sorting Machines(2)	Optical Charcter Readers(3)	SPBS
Number of Machines	4.00	18.00	3.00	2.00
A. Average Run Time Per Machine (hrs.)	16.63	5.13	5.20	15.80
B. Average Number of Sort Plan Changes Per Machine	8.13	5.50	6.30	4.00
C. Ave. Time to Change a Sort Plan (min.)	4.98	16.18	18.60	32.00
D. Scheme Changes, % of run time (4)	0.04	0.29	0.38	0.14
E. Schemes Effect (5)	0.96	0.71	0.62	0.86

1) AFSM 100, FSM 1000, FSM 881

2) DBCS, OSS, BCS

3) ISS, OCR

4) $(B * C) / (60 * A)$

5) 1. - D

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The Effect of Daily Sort Plan Changes in Mechanized Distribution Operations at Facility B

	Flat Sorting Machines(1)	Letter Sorting Machines(2)	Optical Charcter Readers(3)	SPBS
Number of Machines	8.00	31.00	8.00	1.00
A. Average Run Time Per Machine (hrs.)	14.25	12.65	8.00	20.00
B. Average Number of Sort Plan Changes Per Machine	12.00	4.10	1.00	4.00
C. Ave. Time to Change a Sort Plan (min.)	9.75	10.00	10.00	30.00
D. Scheme Changes, % of run time (4)	0.14	0.05	0.02	0.10
E. Schemes Effect (5)	0.86	0.95	0.98	0.90

1) AFSM 100, FSM 1000, FSM 881

2) DBCS, OSS, BCS

3) ISS, OCR

4) $(B * C) / (60 * A)$

5) 1. - D

c. No.

d. Data to answer this question empirically is not available. Large facilities generally have more volume, more delivery points to sort to, and greater network sorting responsibilities. More volume suggests longer runs. More delivery points and network responsibilities suggest more schemes. Intuitively, it is difficult to predict the net effect on average run time per scheme. Of course, if you are interested in a single facility with the same delivery points, network responsibilities and floor layout, but more volume from one year to the next, then the average run time per machine would clearly increase. The same sort schemes must be run regardless of volume so the only impact of more volume on sort scheme changes might be adding a parallel scheme on a high volume separation (e.g. a primary), a tiny change lost among the hundreds of sort schemes that must be run each day.

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VP/USPS-T42-22.

Please refer to Docket No. N2006-1, USPS-LR-N2006-1/7, the chart on the "Highlights" page (preceding page i), "Total Pieces Handled per Person per Hour in Processing Plants for Fiscal Year 2004," which shows small plants handling 1,970 pieces per hour versus 1,495 pieces per hour in large plants. Also, please refer to the response to VP/USPS-T12-4 in this docket, including the histogram attached thereto. Please explain how you would reconcile any assertions, including that of witness Kingsley referenced in preceding VP/USPS-T42-19, concerning the preference for larger plants with the above-referenced data, which indicate that smaller plants on average have higher productivity (and lower unit cost) than larger plants.

RESPONSE:

I presume you are referring to VP/USPS-T42-20, not 19. Please see my response to that question.

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VP/USPS-T42-23.

Please refer to your response to VP/USPS-T42-10. Under what conditions would First-

Class flats, Periodicals flats and Standard flats be given separate outgoing **primary** sortations on AFSM 100 machines? If volume is the primary factor, please indicate the volume level, in terms of machine utilization, that warrants separate primary outgoing sortations.

RESPONSE:

See response to VP/USPS-T42-10c and e. The differing arrival profiles of various mail classes, overall operational windows, volume, request by or consideration for downstream operations could necessitate separate processing of various classes of mail.

As further explained in my testimony on page 20, lines 23-29 and in response to interrogatory VP/USPS-T42-10c, Periodicals flat mail at origin plants in residual (mixed) bundles and containers, for destinations that are linked by surface transportation to the origin facility, will be merged with First-Class flat mail regardless of volume. For the remaining destinations that are not linked by surface transportation, Periodicals flat mail will be merged with but always in front of Standard flat mail, regardless of volume.

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VP/USPS-T42-24.

Please refer to your response to VP/USPS-T42-11. Under what conditions would First-

Class flats, Periodicals flats and Standard flats be given separate outgoing **secondary** sortations on AFSM 100 machines? If volume is the primary factor, please indicate the volume level, in terms of machine utilization, that warrants separate secondary outgoing sortations.

RESPONSE:

See response to VP/USPS-T42-23.

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VP/USPS-T42-25.

Please refer to your response to VP/USPS-T42-13. Under what conditions would First-

Class flats, Periodicals flats and Standard flats be given separate incoming **primary** sortations on AFSM 100 machines? If volume is the primary factor, please indicate the volume level, in terms of machine utilization, that warrants separate incoming primary sortations.

RESPONSE:

Differing arrival profiles of various mail classes, overall operational windows, volume, request by or consideration for downstream operations could necessitate separate processing of various classes of mail. The decision to merge or separate flats across differing mail classes in an incoming primary sortation scheme on the AFSM 100 is at the discretion of a supervisor or manager at the local plant. No threshold volume figure exists to make that decision.