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A Comparative Analysis
of
Two Newspaper Mailroom Operations

by
J. Francis Reintjes

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Electronic Systems Laboratory
Department of Electrical Engineering
and Computer Science
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139

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Recognition should be given to their respective newspapers, also, for their willingness to make the material generally available to the newspaper business-at-large.

ABSTRACT

A comparative analysis of mailroom operations at the San Diego Union-Tribune and the Washington Star has been made in an effort to determine costs in each mailroom and as a first step toward a conclusion as to whether or not fresh, new approaches should be taken to mailroom automation.

Although mailroom charges at the Star are moderately higher than charges at the Union-Tribune, a direct comparison of over-all costs is meaningless because of the many differences in modus operandi at the two locations. Valid comparisons can be made only of those parts of the operation that are common to both mailrooms, and then care must be taken to make allowances for disparities in wage scales for identical jobs.

The analysis shows clearly that both mailrooms are labor intensive rather than capital-equipment intensive, in the sense that weekly costs for labor at both papers far exceed the weekly cost of the capital invested in the automation equipment.

Another hard number that stands out is that the average man-hours of labor being employed by the Union-Tribune to move a unit quantity of papers per week from the counter/stacker to the loading dock is only 53 percent of man-hours being used at the Star. When one examines the automatic materials-handling equipment at the two locations, one is hard-pressed to justify the disparity on technical grounds. Other, nontechnical, factors are apparently influencing the utilization of labor.

Readers should find the report a useful guide to the various fixed and variable costs that should be taken into account in making a determination of over-all mailroom costs.

CONTENTS

	<u>Page</u>
CHAPTER I. STATEMENT OF OBJECTIVES	1
CHAPTER II. AN ANALYSIS OF MAILROOM COSTS AT THE SAN DIEGO UNION-TRIBUNE	4
The Union-Tribune Mailroom	4
Methodology	6
Assumptions	7
Capital Costs	7
Operating Costs	8
Circulation Information	8
Cost Figures	10
Over-all Mailroom Costs	10
Capital Costs Attributable to the Mailroom	11
Operating Costs	12
Interpretation of Results	14
CHAPTER III. AN ANALYSIS OF MAILROOM COSTS AT THE WASHINGTON STAR	16
Introduction	16
Summary of Results	16
The Star Mailroom	17
Assumptions	19
Capital Costs	19
Operating Costs	20
Circulation Information	21
Cost Data	23
Capital Costs	23
Operating Costs	24
CHAPTER IV. ANALYSIS OF RESULTS	26
CHAPTER V. CONCLUSIONS	32

CHAPTER I
STATEMENT OF OBJECTIVES

A comparative study of mailroom operations and costs at The San Diego Union-Tribune and The Washington Star has been made as part of the ANPA/M.I.T. research effort in circulation and distribution. Results of the study are presented in this report.

The study was motivated by a desire to determine the cost-effectiveness of existing automatic materials-handling equipments in newspaper mailrooms. This information is needed as a first step in order to determine whether or not one type of mailroom configuration is superior to others from a productivity viewpoint and whether or not fresh, new approaches should be taken to mailroom automation.

A further objective of the mailroom-analysis project is to provide guidelines to the newspaper business-at-large on the cost-effectiveness of various types of mailroom automation when installed at newspapers with small, medium and large daily circulations.

The mailrooms of The San Diego Union-Tribune (U-T) and The Washington Star provided interesting settings

for analysis because their weekly circulations are about the same order of magnitude but their mailrooms are organized in markedly different ways. At the U-T a power-driven cart system with the trade name Sta-Hi is used to transport bundles from mailroom to loading dock. At the Star bundles move in the mailroom on conveyors and are transferred to the loading dock through use of a gravity-feed system. The Star also employs an inline insert machine as well as an off-line inserter. Inserts are handled exclusively off-line at the U-T.

The methodology of the study was identical at both newspapers. A visit was made to each organization to establish procedures and to gain familiarity with the mailroom layouts. Data on operating and capital costs were then furnished by U-T and Star staff in accordance with a standard format. After cost figures were derived they were referred to their respective newspapers for verification or alteration. A final verification of readjusted results was then made by each newspaper.

Details of the U-T mailroom and a cost analysis are given in Chapter II, and similar information for the Star is presented in Chapter III. Comparisons and interpretations of

results are contained in Chapter IV, and conclusions are drawn in Chapter V.

CHAPTER II

AN ANALYSIS OF MAILROOM COSTS AT THE SAN DIEGO UNION-TRIBUNE

THE UNION-TRIBUNE MAILROOM

The San Diego Union-Tribune (U-T) was chosen for study because it has a relatively new, unique mailroom setup. It therefore provides a good basis for comparison with other types of installations at newspapers of similar size.

Figure 1 is a functional block diagram of U-T's press-to-loading-dock mailroom system. Newspapers move from presses to mailroom over wire conveyors. Papers are stacked, handled and tied automatically and then transported via a Sta-Hi cart transport system to the loading dock, one floor below. Ten exit stations are available in the loading area.

Mailroom control is centered at a controller's station in the mailroom. From here, routing to the various parallel stacker-tyer channels is performed, and orders for bundles requested at the loading docks by distributors are received and verified. After verification bundles are routed to the appropriate ejection station and pickup truck through action

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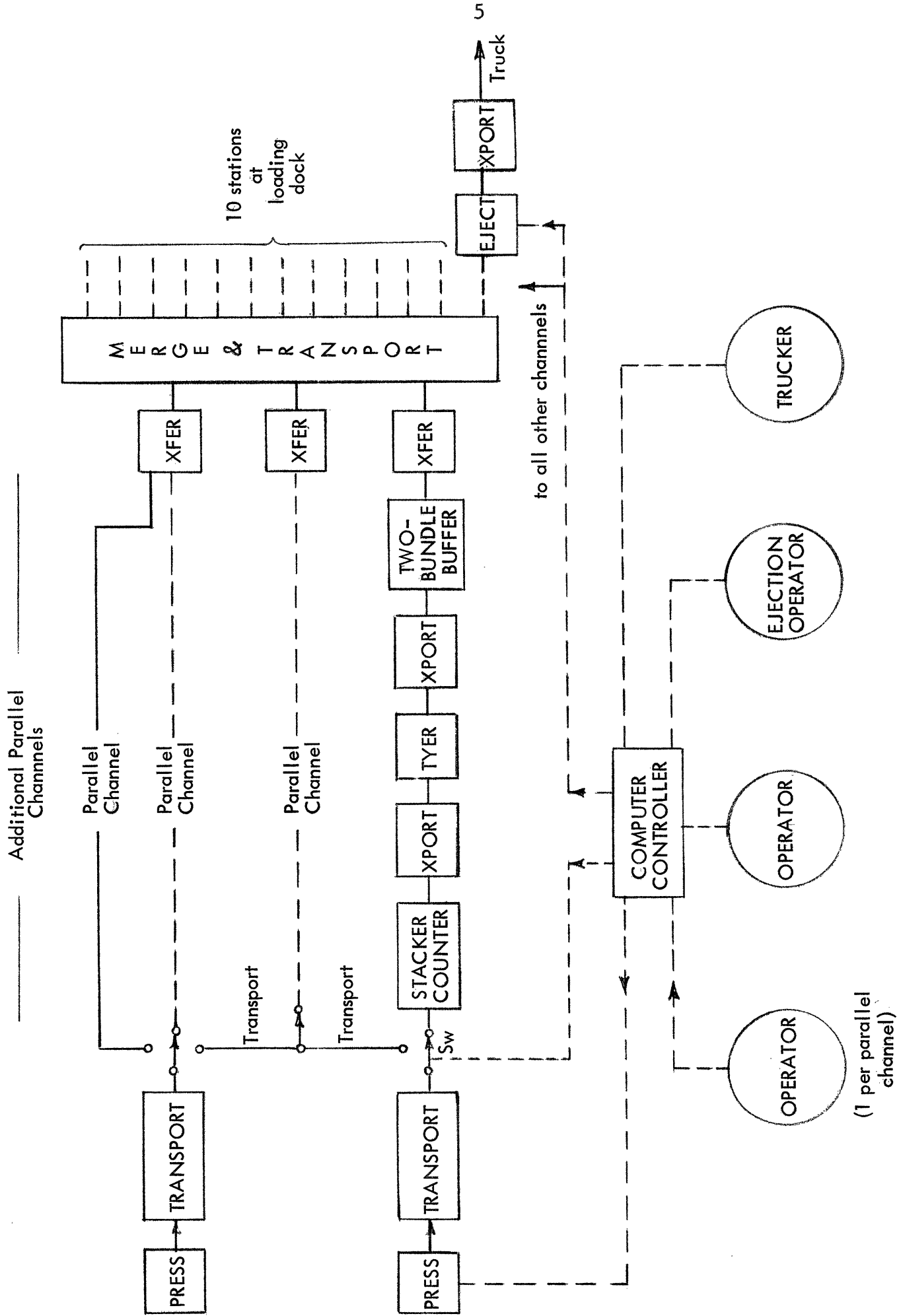


Fig. 1 Functional Block Diagram of Press-to-Loading Dock System, Union-Tribune, San Diego

of the electronic control console in the mailroom.

The U-T mailroom system is basically a series feed-through system with no buffer storage except at the loading dock. When trucks are unavailable to accommodate bundles, the bundles are stacked on the loading-dock floor.

A feature of a series feed-through mailroom system without intermediate storage points is that when one element of the system fails, the whole system including the presses must be shut down. U-T partially overcomes this drawback through use of parallel paths between press and transport carts. In all, six parallel paths are available. In the event of a failure between a stacker/counter and the cart transport, an operator may divert papers to a parallel channel.

METHODOLOGY

The study was conducted with close cooperation from Union-Tribune personnel. Staff members at M.I.T. first visited U-T's newspaper plant to make arrangements for procurement of data. A data sheet that includes all capital and operating costs attributable to the mailroom was subsequently designed, and the corresponding data were gathered by U-T staff for the one-week period March 2 through March 9, 1975.

After certain clarifications of the data, cost figures were developed by M.I.T. and verified by U-T.

M.I.T. and U-T agreed to accumulate operational data for the one-week period stated above. That particular week is recognized as being neither the heaviest nor lightest week of the year. Whether or not it represents the average is open to question, since average must be carefully defined. The impact of the business recession at that time must also be recognized as an influential factor. No attempt was made to clarify these fine-grain matters.

ASSUMPTIONS

During the course of the analysis, it became apparent that cost figures would be influenced to some extent by certain assumptions that had to be made. These assumptions are set forth here.

Capital Costs. The automation-equipment costs were aggregated and the total cost was annualized on a capital-recovery basis over an eleven-year period, the depreciation period used by U-T, and an annual interest rate of 8 percent per annum was assumed. No salvage value was allowed. Since some capital equipment in U-T's mailroom has already been

written off, we computed two mailroom costs, one on the basis of an 11-year capital-recovery period of the original investment, and another on the assumption that no charge should be made against items already fully depreciated. Two different depreciation times were used for the building --- 40 years for the building itself and 10 years for building equipment. Total building cost per square foot was allocated on a 70/30 basis between structure and equipment. Land was not included as a cost component since it is assumed that annual interest charges on land investment would be offset by an annual appreciation in land value. However, land improvements were accounted for.

Operating Costs. U-T furnished data on labor wage rates (straight time and overtime rates) for day and evening shifts, the number of personnel, by categories and shifts, and hours worked per week. Direct-labor costs were computed from these data. Labor rates included wage rates plus fringe benefits.

Circulation Information. The following circulation data were used in the cost analysis:

	Edition			Total
	Morn.	Eve.	Sun.	
Av. Papers shipped/week	1,140,000	840,000	300,000	2,280,000
Editions with Inserts (marked X)	X	X	X	
Av. No. of Inserts per week	3	4	4	11

The total number of pages handled by the mailroom per week is 164,110,000 excluding Sunday Comics, Parade and advertising preprint sections.

In a calculation of the number of pages handled by the mailroom per week, there arises the question of how to account for the inserts. Inserts are special in that they are handled within the mailroom but arrive as outside-printed materials rather than from the press room. Two computations were made; one ignores inserts, Sunday Comics and Parade, the other includes these items on the basis of the following assumptions:

Sunday Comics	8 pages
Parade	24 pages
Ad Preprints	8 pages, each

When inserts are included, 192,270,000 pages are processed per week.

COST FIGURES

Based upon the furnished data and the assumptions outlined above, the following figures were derived for the one-week sample.

Over-all Mailroom Costs

Total Mailroom Cost per paper, assuming all capital items are depreciated at standard rates	1.09 cents/paper
Total Mailroom Cost per paper, with fully depreciated items omitted from the calculation	1.08 cents/paper
Total Mailroom Cost per 1,000 pages (Sunday Comics, Parade and Ad Preprints ignored); all capital items depreciated at standard rates	15.1 cents/1000 pages
Total Mailroom Costs per 1,000 pages including estimates for Sunday Comics, Parade and Ad Preprints	12.9 cents/1000 pages

The data used to arrive at the above over-all cost figures are tabulated on the next several pages.

Capital Costs Attributable to the Mailroom.

Assumptions: 8 percent interest rate; annualized method of depreciation; no salvage value.

<u>Equipment</u>	<u>Cost</u>	<u>Depreciation Rate-Years</u>	<u>Cost per Week</u>
Press-to-Stacker Conveyors (4)	\$ 806,247	11	\$2,171.91
Counter/Stackers (6)			
Tyers (6)			
News-Trac Cart Transport (1)			
Loading-Dock Control Equipment (1)			
Stuffers (1)	119,645	11	322.31
Truck Loading Conveyors (10)	30,000	11	80.82
<u>Building</u>			
Structure: 27,000 sq. ft. attributable to Mailroom @ \$20.09/sq. ft.	542,335.50	40	874.62
Bldg. Facilities @ \$8.61/sq.ft.	232,429.50	10	666.13
<u>Site</u>			
Land Improvements, 47,578 sq. ft. @ \$1.06/sq. ft.	50,432.20	10	144.54

Summary of Capital Costs

Equipment	\$2,575.04
Building	1,540.75
Site	144.54
Total:	<u>\$4,260.33</u>

Mailroom Operating CostsDirect Labor

<u>Job Classification</u>	<u>Morning Editions incl. Sunday</u>	<u>Evening Editions</u>	<u>Total</u>
Line Monitor	\$ 618.21	\$ 484.86	\$ 1,103.07
Console Operator	288.84	277.07	565.91
Loading Dock Con- troller	288.84	277.07	565.91
Stuffer Operator	2,133.33	3,621.64	5,754.97
Trouble Shooter	618.21	415.60	1,033.81
Mail Address/Wrap	420.59	118.74	539.33
Pre-print Topping	152.02	163.27	315.29
Pre-print Counting	456.06	589.75	1,045.81
Stack Pre-date	-	351.28	351.28
Stack Society	-	380.97	380.97
Labor Unaccounted for	-	-	1,223.60
	<u>\$4,976.10</u>	<u>\$ 6,680.25</u>	<u>\$ 12,879.95</u>

Support Labor

<u>Job Classification</u>	<u>Morning Editions incl. Sunday</u>	<u>Evening Editions</u>	<u>Total</u>
Equipment Mainten- ance & Repairmen	\$ 480.97	\$ 463.79	\$ 944.76
Mailroom Mainten- ance (Porters, etc.)			1,464.16
Security			341.64
			<u>\$ 2,750.56</u>

Administration

<u>Title of Position</u>	<u>Salary per Week</u>
Mailroom Manager and Mailroom Supervisor	\$ 1,307.96
Maintenance Superintendent	121.31
Top Management and General Administrative Support	337.81
	<u>\$ 1,767.08</u>

Building Operations

<u>Item</u>	<u>Weekly Charge to Mailroom</u>
Taxes	\$ 1,113.52
Insurance	84.31
Utilities:	
Heat/Air-Cond.	46.92
Electricity	544.62
Communication	14.28
Water	30.33
	<u>\$ 1,833.98</u>

Materials and Supplies

<u>Item</u>	<u>Weekly Charge to Mailroom</u>
Operating Supplies	\$ 812.50
Replacement Parts and Expendable Equipment	533.65
	<u>\$ 1,346.15</u>

Summary of Operating Costs

Direct Labor	\$12,879.95
Support Labor	2,750.56
Administration	<u>1,767.08</u>
Total, Labor	\$17,397.59
Building Operations	1,833.98
Materials & Supplies	<u>1,346.15</u>
	<u>\$20,377.72</u>

Summary of All Costs

Capital Costs	\$ 4,260.33 per week
Operating Costs	<u>20,377.72</u>
Total	<u>\$24,838.05 per week</u>

The preceding figures, when combined with the weekly circulation figures, yield the per-paper and per-1,000 page mailroom costs listed on p. 10.

INTERPRETATION OF RESULTS

From the analysis, these observations and conclusions may be drawn.

1. The ratio of direct-labor costs to equipment costs is 5.0. Thus, the mailroom appears to be rather labor intensive, and a possible challenge exists to introduce more automation that reduces direct labor (or to renegotiate labor contracts in an effort to reduce any overmanning that may exist).

2. By far the highest direct-labor cost is for stuffer operators. In any automation effort one would therefore examine closely the insert operation as a means of curtailing direct labor costs.

The cost analysis shows that the total annual cost of stuffing-machine operators is approximately \$300,000. To cut that figure in half, to \$150,000 per year, a capital investment in machinery amounting to at least \$1,000,000 can be justified. This number assumes cost recovery in equal annual amounts over an 11-year period at an annual interest rate of 8 percent. The number is conservative since it is based on current wage rates rather than upon average rates over a future 11-year period.

3. The mailroom productivity index, which is the ratio of newspapers processed by the mailroom per week divided by the man-hours per week of direct labor, is 1960 papers per man-hour.

4. Various costs ratios under the condition that capital items now off U-T's books are actually included in the calculation are as follows:

Direct/Labor Cost/Equipment Cost	=	5.0/1
Direct Labor Cost/All Capital Costs	=	3.0/1
All Salaries and Wages/Equipment Costs	=	6.8/1
All Salaries and Wages/All Capital Costs	=	4.1/1
Total Operating Costs/Total Capital Costs	=	4.8/1
Insert Labor Cost/Insert Equipment Cost	=	20.2/1
Insert Labor Cost/All Other Direct Labor Costs	=	1.01/1
Insert Equipment Cost/All Other Equipment Costs	=	0.14/1
Insert pages per week/All other pages per week	=	0.17/1

CHAPTER III

AN ANALYSIS OF MAILROOM COSTS AT THE WASHINGTON STAR

INTRODUCTION

Mailroom costs of the Washington Star were analyzed in a manner similar to that of the San Diego Union-Tribune. The Star mailroom is organized along different lines from the Union-Tribune. However, both organizations print about the same number of newspapers per week and handle about the same number of pages over a weekly time period.

The analysis procedure followed that of the Union-Tribune. The Star supplied data in accordance with a standard format, calculations based on the data were made and results were critiqued by the Star personnel. The figures presented here are the result of this cooperative effort.

SUMMARY OF RESULTS

Over-all Mailroom Costs

Total Mailroom Costs per 1000 pages, including estimates for Sunday Comics, Family Week- ly and Ad Preprints	21.1 cents/1000 pages
Total Mailroom Costs per paper	1.7 cents/paper

Cost Ratios

Direct Labor Cost/Equipment Cost	6.25/1
Direct Labor Cost/All Capital Costs	3.76/1
All Salaries and Wages/Equipment Costs	7.47/1
All Salaries and Wages/All Capital Costs	4.48/1
Total Operating Costs/Total Capital Costs	4.93/1
Insert Labor Cost/Insert-Equipment Cost	3.32/1
Insert Labor Cost/All other direct labor costs	0.42/1
Insert pages per week/All other pages per week	0.20/1

The cost figures summarized above are developed in detail in the following pages of the report.

THE STAR MAILROOM

The principal difference between the mailroom configurations at the Star and the Union-Tribune is that the Star relies on gravity (passive chutes) to transfer newspaper bundles from the mailroom to the loading dock, whereas transfer at the Union-Tribune is by means of power-driven carts. Both systems are electronically controlled centrally by a console operator. A diagram of the Star configuration is shown in Fig. 2. Bundles from Stacker/Tyers move onto a conveyor system that extends nearly the full length of the mailroom. Chutes leading to the various loading-dock stations attach at right angles to the conveyor, and bundles are diverted into the chutes designated by the console operator. The conveyor system

- S/C Stacker/Counter
- T Tyer
- I Insert Machine
- II Inline Insert Machine
- ∅ Gravity Chute
- ▤ Truck Conveyor

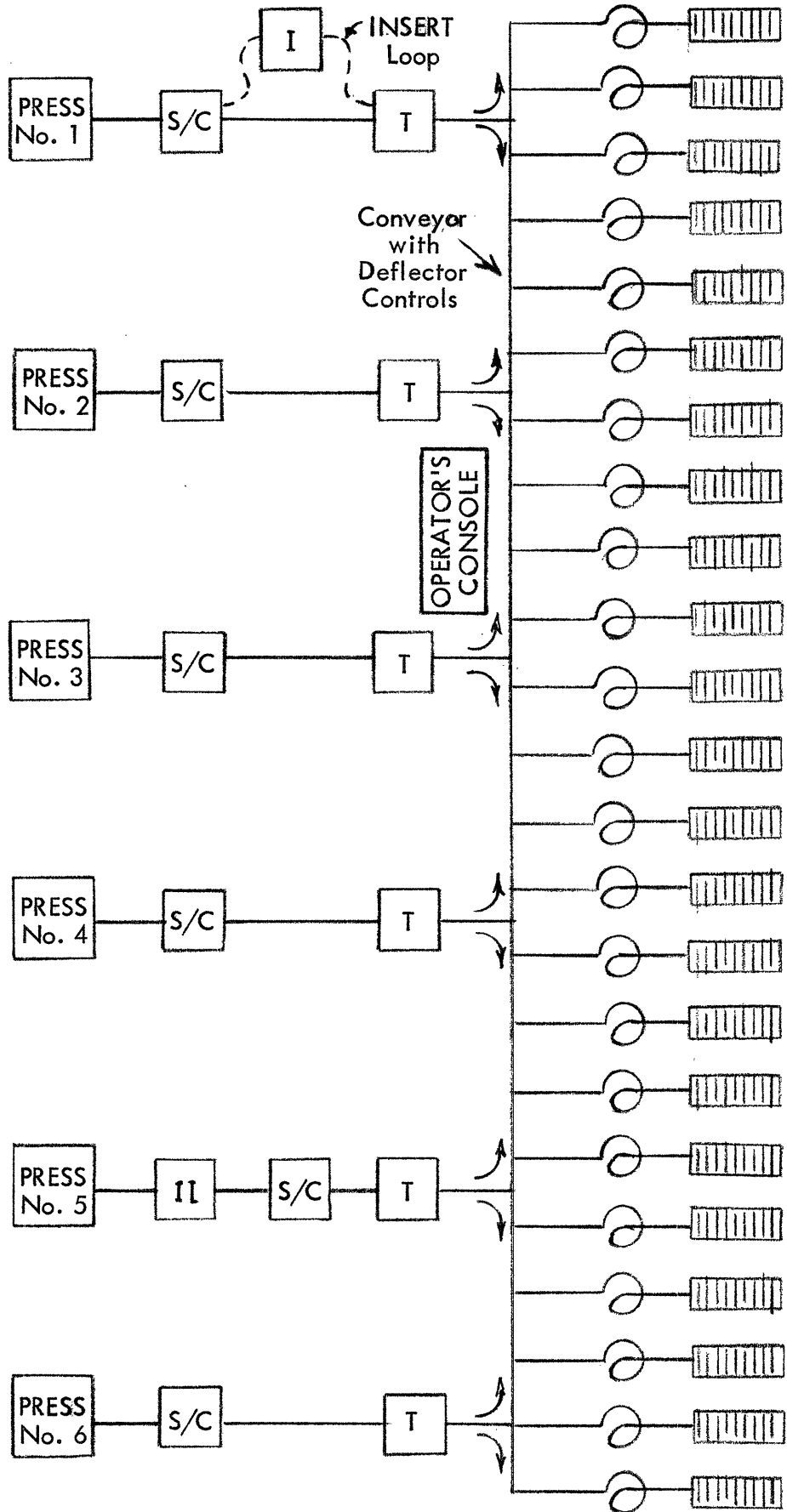


Fig. 2 The TRANSPORT System in the Washington Star Mailroom

is designed so that any press can feed any chute in the system.

A total of twenty-three chutes lead to an equal number of loading-dock stations. At each loading station a conveyor is extended into the truck to facilitate truck loading.

The Star is experimenting with an in-line insert machine (labeled II in Fig. 2). This machine, when fully operational, will take newspapers as they come from the press room, perform the insert operations and transfer the papers with inserts to a stacker/tyer. Provision for handling overflows at the insert machine because of mismatches among press speeds, insert speed and stacking/tying is included in the system.

ASSUMPTIONS

In a cost analysis certain assumptions have to be made, and these influence over-all results to some extent. In making these assumptions we adhered to the Star's policy and wishes, but wherever there was flexibility we applied the same assumptions used in the Union-Tribune analysis.

Capital Costs. 1. The automation-equipment cost was annualized on a capital-recovery basis over a time period specified by the Star at an annual interest rate of 8 percent per

annum. No salvage value was allowed.

2. Since some of Star's equipment has already been written off, replacement cost as recently gathered by Star was used as a cost basis.

3. With respect to the building and the fraction of it that is assignable to the mailroom and loading dock, Star assigned a 20-year write-off period. A salvage value of one-third the original cost was arbitrarily assigned to this item.

4. Land cost was not taken into account. Perhaps it should have been appreciated over the life span of the building. We chose to ignore it, as we did in the Union-Tribune study.

Operating Costs. 1. Direct- and indirect-labor costs were computed directly from Star's figures. They include wage rates plus fringe benefits. No attempt was made to normalize wage figures with respect to either the Star or the Union-Tribune. In general, the hourly top wage at the Star was \$8.3857 plus fringe benefits, as compared with \$7.62 plus fringe at the Union-Tribune. At the Union-Tribune, all categories of direct labor receive identical rates, but there is an 18-cent differential between morning and evening papers.

Administrative salaries were closely comparable and within the error tolerances of the over-all cost figures.

2. It is not Star's accounting practice to break out building operating costs (taxes, insurance, utilities) and to make a separate cost allocation to mailroom operations. However, since it appears reasonable to do so, and since these items were included in the Union-Tribune analysis, it was decided to make an arbitrary allocation against building operations. An allocation charge of the same amount used at Union-Tribune was assigned in the Star tabulation, since both operations are of the same order of magnitude. A similar procedure was followed for materials and supplies.

CIRCULATION INFORMATION

The following circulation data were used in the Star cost analysis:

	<u>Evening</u>	<u>Sunday</u>	<u>Total</u>
Av. papers shipped/week	2,220,000	360,000	2,580,000
Av. pages/paper (weekly average)			67.12
Av. pages/week, exclusive of color and inserts			173,169,600
Av. pages, color and inserts/week			34,400,000
Total pages/week			207,569,600

The insert pages were calculated as follows:

Weekday ad preprints

1 preprint/paper

8 pages/preprint

2 to 3 occurrences/week (av. 2.5)

Av. weekday circulation containing preprints: 370,000

Total weekday preprint pages: 7,400,000

Sunday

<u>Item</u>	<u>Pages</u>
1 Comics	8
1 Family Weekly	20
5 Ad Preprints @ 8 p.	40
1 TV Guide	7
	<u>75</u>

Total pages: 75 x 360,000 = 27,000,000 pages

COST DATACapital CostsEquipment

<u>Item</u>	<u>No.</u>	<u>Total Cost</u>	<u>Depreciation Rate - Yrs.</u>	<u>Cost per Week</u>
Counter/Stackers	6	\$197,400	10	\$ 566.
Tyers	6	132,000	10	378.
Truck Conveyors, Chutes (dock equip- ment)	23	183,000	15	411.
Stuffers, stand- alone	2	446,660	10	1280.
Stuffers, in line	1	423,230	10	1213.
Mailroom Conveyors, Console	1	160,000	15	459.
Pallet Jacks, incl. batteries & charger	6	21,900	4	<u>127.</u>
Total				<u>\$4434.</u>

Building

<u>Item</u>	<u>Total Cost</u>	<u>Salv. Value</u>	<u>Deprec. Rate-Yrs</u>	<u>Cost per Week</u>
Structure: 27,500 sq.ft. attributable to mailroom; 18,750 sq. ft. to dock area; \$35/sq.ft.	\$1,619,000	\$540,000	20	\$2944
Site: Mailroom plus dock area	No charge (see text)			

Summary: Capital Costs/Week

Equipment	\$4434.
Building	<u>2944.</u>
Total	\$7378

Operating CostsDirect Labor

<u>Function</u>	Costs per week, including fringe benefits
	<u>Evening and Sunday Papers</u>
Counter/Stackers, tyers, trouble and relief men	\$ 6,562.65
Dispatchers	2,823.47
Topping	1,526.20
Inserting Machines	7,173.13
Inserters -- Sunday Newsstand Copies	1,424.80
Floor Men	5,400.00
Mail & Returns	1,602.51
Clerical	1,220.96
	<u>\$ 27,733.72</u>

Support Labor

<u>Function</u>	
Equipment Maintenance and Repair	\$ 1,908.15
Mailroom Maintenance	1,963.64
	<u>\$ 3,871.79</u>

Administration

<u>Function</u>	<u>Assignable Salary/Wk + Fringe Benefits</u>
Mailroom Manager	\$ 576.92
Mailroom Supervisor	807.69
General Admin.	117.31
	<u>\$ 1,501.92</u>
Building Operations	\$ 1,800. (est.)
Materials & Supplies	<u>1,500. (est.)</u>
	\$ 3,300. (est.)

Summary of Operating Costs

Direct Labor	\$27,733.72
Support Labor	3,871.79
Administration	1,501.92
Building Operations	1,800.00 (est.)
Materials & Supplies	<u>1,500.00 (est.)</u>
	\$36,407.43

Summary, All Costs

Capital Costs	\$ 7,378.00
Operating Costs	<u>36,407.43</u>
	\$43,785.43

The cost data on the preceding page, together with the circulation data on p. 22, were used to obtain the over-all cost figures and cost ratios on pp. 16 and 17.

CHAPTER IV
ANALYSIS OF RESULTS

A direct comparison of mailroom costs at the two newspapers is misleading for at least two reasons: (1) the direct-labor wage scale including fringe benefits at the **Star** is 10 percent higher than the wage scale at the Union-Tribune, and (2) the two mailrooms have different management-organizational structures; hence, charges for certain functions are handled differently. At the **Star**, mailroom personnel at the loading docks do the loading of bundles onto the trucks and these wages are charged to the mailroom operation. At the Union-Tribune, on the other hand, some, but not all, of the loading is performed by the drivers of the delivery vehicles who, in turn, are accountable to the circulation department rather than to the mailroom which, incidently, is part of the production department.*

In the paragraphs that follow we try to make comparisons of mailroom costs more meaningful by making allowances for the

* At the U-T truck loading is further complicated by the fact that procedures for morning and evening papers are different. Afternoon distribution men load their own vehicles and this operation is considered to be part of their job. The circulation department, on the other hand, supplies loaders to load morning papers onto vehicles. On balance, there appears to be some cost saving here, but the exact amount cannot be stated since we did not go into truck-delivery costs.

differences cited above.

Direct Labor for the Counter/Stacker to Loading Dock Operation. It is of interest to make comparisons of the direct labor in man-hours associated with the mailroom process starting with the counter/stackers and ending at the loading dock. By so doing, we eliminate differences in charging practices for the loading operation, set aside the insert operation and concentrate on the commonalities of the two in-line new-paper bundling and transfer operations. Making comparisons in man-hours rather than in dollar costs also circumvents differences in wage scales. Table IV-1 shows the relevant figures.

Table IV-1. Direct Labor from Counter/Stackers to Loading Dock, for a 1-week period.

Newspaper	Direct Labor	
	<u>Man-Hrs/Wk.</u>	<u>Man-Hrs/Wk./1000 Newspapers</u>
Star	1204	0.47
Union-Tribune	576	0.25

The figures of Table IV-1 indicate that the Star is consuming nearly twice as many man-hours of direct labor weekly per 1,000 newspapers processed through the counter/stacker to loading dock system as is the Union-Tribune. The difference is even more significant when one factors into the data the

higher wage scale that exists at the Star. One can set forth several factors that may account for the man-hour differential.

One may be that U-T's automatic materials handling configuration is inherently more efficient, manpower-wise. Other factors which should be examined (and which were not) are: the possibility that the Star may be using more direct labor in their bundle-transfer lines than is actually needed; and the possibility that labor requirements are higher at the Star than at the U-T because the former is an evening paper only on weekdays whereas the U-T publishes morning and evening editions. Related to the latter point are possible influences which differences in press-room scheduling practices and delivery-truck schedules may have on man-power requirements. Both organizations publish about the same number of papers per week, but except for the Sunday edition, the U-T does its printing during two separate shifts.

Capital Equipment Costs and Direct-Labor Costs for Counter/Stacker-to-Loading-Dock Operation. It is not the direct labor alone that governs the cost of processing newspapers from press to loading dock; one must also take into account the cost of the capital that is invested in the automatic-materials-

handling equipment. Inline capital equipment costs have been examined; the results are presented in Table IV-2 together with direct-labor costs and the total cost.

Table IV-2. Component Costs and Total Costs of the Counter/Stacker-to-Loading-Dock Operation

Newspaper	Capital Equipment Cost per week per Newspaper	Direct Labor Cost per week per Newspaper	Equipment and Direct-Labor Costs per week per Newspaper
Star	0.07 cent	0.509 cent	0.58 cent
Union-Tribune	0.099 cent	0.281 cent	0.38 cent

The data indicate that Union-Tribune's capital equipment cost is higher than a similar cost at the Star, but U-T's direct labor cost is much less than at the Star. The U-T direct-labor cost is lower because of fewer man-hours per week and a lower wage scale. It is of interest to note that, costwise, press-to-loading-dock operations are labor-intensive at both places in that the major cost component is labor despite the use of automated bundle-transfer equipment.

Direct Labor for Inserts. The Star averages 34,400,000 insert pages per week; the Union-Tribune handles 28,240,000. At the Star the ratio of insert pages per week to all other pages is 1/5, or 0.20. The corresponding ratio at

the U-T is 0.17. However, the numbers show that labor is used more efficiently at the Star --- 34.4 million insert pages are processed in 658 man-hours at the Star compared with 28.24 million in 749 man-hours at the U-T. However, because of the higher wage rate at the Star, their insert labor cost exceeds U-T's cost. The data are tabulated in Table IV-3. Approximately 13 percent of Star's labor cost, as shown in Table IV-3, is for high-school boys hired on Saturday evening to insert the Sunday newsstand papers only.

Table IV-3. Direct Labor for Inserts

	<u>Newspaper</u>	
	<u>Star</u>	<u>Union-Tribune</u>
Insert Pages per week	34,400,000	28,240,000
Man-Hours/Week for Inserts	658	749
Labor Cost/Week/1000 Insert Pages	24.0 cents	23.0 cents

In Table IV-4 we combine the weekly direct-labor and capital equipment costs to obtain the total weekly cost of the insert operation per week.

Table IV-4. Component and Total Weekly Cost of the Insert Operation

<u>Newspaper</u>	<u>Cost per week per 1000 Insert Pages</u>		
	<u>Equipment</u>	<u>Direct Labor</u>	<u>Total</u>
Star	7.3 cents	24.0 cents	31.3 cents
Union-Tribune	1.1 cents	23.0 cents	24.1 cents

It is noted here that the Star is moving toward inline inserting and their capital equipment cost reflects both inline and offline insert machines. At the Union-Tribune the insert operation is exclusively offline.

Remaining Costs. Thus far, the mailroom operations have been compared in terms of the costs of the direct labor and capital equipment required to do comparable jobs at the two locations. Obviously, these are not the only components of cost involved. Supervisors, maintenance personnel, administrators, building and building operations are needed to support the mailroom operation. All these have been factored into the over-all costs tabulated in Chapters II and III.



CHAPTER V

CONCLUSIONS

We conclude from this analysis of mailroom operations at the Washington Star and at the San Diego Union-Tribune, and from visits to the mailroom of other newspapers that direct cost comparisons of newspaper mailrooms are meaningless unless it so happens that the mailrooms being compared are closely identical in all phases of their mailroom operations.

There are so many differences in the two mailrooms reported upon here that the over-all mailroom cost figures of 12.9 cents per 1000 pages at the Union-Tribune and the corresponding figure of 21.1 cents at the Star should be used only to ask the question: "Why the big difference?" The differences have been set forth in the preceding Chapter. They include a difference in wage scale, a difference in loading dock procedures, a difference in who gets charged for truck loading, a difference in automatic materials-handling equipment and a difference in publication schedules (the Star is an evening and Sunday paper ; the Union-Tribune is a morning, evening and Sunday paper).

Nevertheless, conclusions can be drawn from a comparison

of the two mailroom operations. Perhaps the most important one is that both mailrooms are labor-intensive. Whether or not all the labor that is currently being employed is actually needed is a moot question, but on the basis of that which is being used, direct labor costs far exceed capital-equipment costs. Either the kind of automation equipment being employed is ineffectual in eliminating labor or it is operating with an over-use of labor.

One hard number that stands out in this study is that the average man-hours of direct labor being employed by the Union-Tribune to move a unit quantity of newspapers per week from the counter/stackers to the loading dock is only 53 percent of that being used at the Star. When one looks at the automatic materials handling equipments at the two locations, one is hard-pressed to justify the disparity on technical grounds. Other factors, such as inefficient use of labor and the need to concentrate all mailroom activities into a one shift, apparently engender a higher labor requirement at the Star.

A second conclusion is that a simple compilation of man-hours and mailroom cost figures is an inadequate basis for deciding whether or not a mailroom operation is inherently efficient or inefficient. In order to make this decision, detailed analyses are needed of newspaper-flow rates through

the mailroom, of where machines are mismatched and thus preventing realization of maximum flow, and of where labor is actually required and how tasks can be combined to minimize labor requirements.

A third conclusion is that the mailroom is only one part of the newspaper-distribution process that begins at the output of the presses and ends with the newspaper in the hands of the customer. Viewed in this way, the mailroom is a piece of a larger system. Whether or not a particular mailroom is a "good" one or a "bad" one depends not so much on the way it is configured, whom it reports to, and cost-accounting practices, but rather upon how efficiently the configuration meshes with the total distribution system in which it is imbedded. Costs in a particular mailroom may be high but they may be compensated by savings in other parts of the distribution system. It is the over-all distribution cost from the presses to the readers that counts.

Another conclusion relates to the insert operation at both newspapers. Inserting is highly labor-intensive at both places. At the Union-Tribune insert direct-labor cost equals all other direct-labor cost even though insert pages handled per week, expressed as a percentage of all other pages handled per week is only 17 percent (see p. 15). Also, U-T spends

approximately 21 times as much, per week per 1000 insert pages on insert labor as it spends for its insert equipment (see p. 30). Furthermore, we note that the sum of insert-equipment and direct-insert-labor costs amount to 24.1 cents per week per 1000 insert pages (p. 30) whereas total weekly mailroom costs per 1000 newspaper pages, which include all fixed and variable costs, is only 15.1 cents. Obviously, an investment in labor-saving machines for inserts would be worthwhile, assuming, of course, the machines are truly labor-saving.

The corresponding figures for inserts differ somewhat at the Star, but the over-all conclusion is the same. At the Star, insert direct-labor cost is approximately 42 percent of all other direct labor costs (see p. 17), and their ratio of insert pages per week to all other pages handled per week is 0.2, or 20 percent. Because of Star's higher wage scale and since their insert equipment cost is approximately 7 times higher than that at U-T, the Star weekly charge per 1000 insert pages turns out to be 31.3 cents per 1000 pages as against U-T's 24.1 cents (see p. 30). As at the U-T, the Star's insert capital and direct-labor charges per 1000 insert pages exceed total mailroom charges per 1000 newspaper pages, but the ratio of the two charges at Star is appreciably lower than

at the U-T. Apparently, Star's entry into direct inline inserting is paying off.