

ODFORM 1

SURVEY SHEET FOR INDOOR PREPARATION (1)
(Accompanied Survey)

Region: _____
 Post Office: _____
 Delivery district: _____
 Researcher: _____

Indoor Preparation for Delivery:

Step of Operation	Unit	No. of mail items	Time needed	Action Required	Work Flow
Receiving of mail		-	-		
Ordinary Registered	piece piece			(1) and (2) Measure the time needed for receiving of mail and count the number of mail items received.	Ordinary Registered
Preliminary Sorting		-	-		
Ordinary	piece			Measure the time needed for preliminary sorting of ordinary mails items.	Ordinary
Door-to-door arrangement		-	-		
Ordinary	piece			Measure the time needed for door-to-door arrangement and count the number of mail items by type of service.	Ordinary
Sorting and door-to-door arrangement		-	-		
Registered	piece			Measure the time needed for sorting and for door-to-door arrangement for registered items.	Registered
Bundling		-	-		
Ordinary	bundle			Measure the time needed for bundling and count the number of bundles.	Ordinary
Placing in satchel		-	-		
Ordinary Registered	bundle bundle			(7) and (8) Measure the time needed for placing bundles in the satchel.	Ordinary Registered

ODFORM 2

Survey Sheet for Indoor Preparation (Continued) (2)
(Accompanied Survey)

Step of Operation	Unit	Number of mail items	Time needed	Action Required	Work Flow
Transportation		-	-		
Satchel (9)		-		Measure the time needed for conveyance of satchel to the vehicle	○
Examination of vehicle before starting (10)		-		Measure the time needed for examination of vehicle before starting	○
Attachment of satchel to vehicle (11)		-		Measure the time needed for attaching the satchel to the vehicle	○
Handling of undelivered mail and checking and putting in order of delivery records or delivery certificates		-	-	1. Measure the handling time for undelivered registered items at delivery section and count number of items thereof 2. Measure the time needed for checking and for putting in order of delivery records or delivery certificates for registered items	○
Registered (12)	piece			Measure the time needed for handling of non-deliverable mail	○
Handling of non-deliverable mail items (13)	piece			Measure the time needed for cleaning of vehicle	○
Cleaning of vehicle (14)		-			○

ODFORM 3

OUTDOOR WORK SURVEY SHEET (1)

A. TABLE FOR NUMBER OF ITEMS DELIVERED AT EACH DELIVERY POINT AND TIME RECORDED FOR EACH DELIVERY

Type of Service				Delivery Point																Total				
Domestic mail	Ordinary	Surface	1st class	2nd class	Books	Parcels	Others	Airmail (non-speed)											97	98	99	100	Total	
			Exp. & Spl. Del. (non-reg'd)	Surface	Airmail	Speed airmail	Registered	Surface	Non-Exp. & Spl. Del.	1st class	Parcels	Others	Exp. & Spl. Del.	Airmail	Non-Exp. & Spl. Del.	Exp. & Spl. Del.								
Foreign incoming	Ordinary	Surface	Letters	Postcards	Printed matters	2nd class	Small packet	Parcels	Airmail											97	98	99	100	Total
			Letters	Postcards	Printed matters	Air parcels	Exp. & Spl. Del.																	
			Exp. & Spl. Del.	Others	Airmail																			
			Exp. & Spl. Del.	Others	Surface																			
		Registered	Surface	Exp. & Spl. Del.	Others	Airmail																		
				Exp. & Spl. Del.	Others	Surface																		
			Airmail	Exp. & Spl. Del.	Others	Surface																		
				Exp. & Spl. Del.	Airmail	Surface																		
	Time required for delivery (Second)*(1)																		(x)					
	Fill in O or X*(2)																							

Notes: • (1) Fill in No. of mail items by type of service delivered at each delivery point and time required for delivery.
 • (2) A symbol "O" is entered when mail items delivered to a household are categorized into only one type of service and a symbol "X" is entered when those are categorized into two or more types of service.

B. RECORDING TABLE FOR RIDING TIME (SURVEY)

Operation	Measurement & Time	Time Required	Remarks
Starting from office Riding to delivery district (15)	Starting from office: Arrival in the delivery district (y):	Sec.	Riding time from post office to the first delivery point
Delivery (16)	For this column, total columns (x) of table A above are transferred here.	Sec.	Time required for delivery of mail items by type of service and number of items
Riding during delivery (17)	Time required is calculated through following formula: $(z) - (y) - (x) = (17)$	Sec.	Total riding time from the first delivery point to the last delivery points
Riding back to the office Arrival at office (18)	Departure from delivery district (z): Return to the office room:	Sec.	Riding time from the last delivery point to the time for getting off from the vehicle at the office (after returning)

OUTDOOR SURVEY SHEET (2)

(In Entering This Form, Refer to The Attached "Note for OD Form 4")

Classification	Number of mail items for delivery and number of delivery points		Breakdown of (A)		Number of Items Delivered	Breakdown of (D)		Breakdown of (G)		In cases where two or more than two type of mail items are delivered to a delivery point	
	Number of mail items & number of delivery points		Registered			Registered		Registered			
	Type of Service	No. of Items	Ratio	No. of Items	Ratio	No. of Items	Ratio	No. of Items	Ratio	No. of Items	Ratio
Domestic mail	Ordinary	Surface									
		1st class									
		2nd class									
		Books									
		Parcels									
		Others									
		Airmail (non-reg.)									
		Express & Spl. Del. (non-reg.)									
		Special airmail									
		Registered	Surface								
			Non-Reg.								
			1st class								
			Parcels								
			Others								
	Foreign incoming	Ordinary	Surface								
		Letters									
		Postcards									
		Printed matters									
		2nd class									
		Small packet									
		Parcels									
		Others									
		Airmail	Surface								
			1st class								
			2nd class								
			Parcels								
			Others								
			Airmail								
Total		No. of items		100%		100%		100%		100%	
	No. of delivery points (X)										
Time required for delivery (Y)											
Unit delivery time per delivery point (seconds)											
$(Y) \div (X)$											
$(Y) \div (X)$											

NOTE FOR ODFORM 4 :

1. For columns in which – (dash) is entered, it is not necessary to complete. This applies to other FORMS too.
2. For columns (A) under "Number of Items", "Number of Delivery Points" and "Time Required for Delivery", figures entered under total columns of Table A of "Outdoor Work Survey Sheet (1)" are transferred.
The data transferred to Columns (A) are then broken down to Columns (B) and (C) depending on whether an item is ordinary or registered.
3. Number of items to be entered in Columns D and G
For columns on number of delivery points and time required for delivery, figures entered in Column "TOTAL" of Table A of "Outdoor Work Survey Sheet (1)" are transferred.
However, in transferring following procedures should be followed:
 - (1) In cases where mail items delivered per delivery point are categorized to only one type of service, to which a symbol "o" is placed on the bottom column of ODFORM 3, Number of Mail Items, Time Required for Delivery, Number of Delivery Points are totaled and then transferred to column D of this FORM. On the other hand, where mail items delivered per delivery point are categorized to two or more than two types of service, to which symbol "X" is put on the bottom column of ODFORM 3, figures of those columns are totaled respectively and transferred to Column G of this FORM.
 - (2) However, as to number of delivery point at which two or more than two types of service of mail items are delivered, if mail items are all ordinary, then it is counted as number of ordinary delivery point and if items are all registered then it is considered as number of registered items delivery point.
Further, in cases where ordinary mail items and registered items are delivered at the same time at a delivery points, then this delivery point is counted both as ordinary mail delivery point and as a registered mail delivery point.
Consequently number of delivery points with two or more than two types of service of mail items are reckoned with as: $(G) \leq (H) + (I)$
4. Among incoming foreign airmail items, some items coming from specific countries are handled in a similar manner as registered items.
These items can be included as registered mail items.

ODFORM 5

REPRESENTATIVE WORKING TIME COMPUTATION SHEET (I)

Type of Service		Step of Operation and Serial Number Thereof		Time Required			
				Ordinary	Registered		
Domestic Mail	Ordinary	Surface	1st class			(1) Receiving (ordinary)	
			2nd class			(2) Receiving (registered)	
			Books			(3) Preliminary sorting (ordinary)	
			Packages			(4) Door-to-door arrangement (ordinary)	
			Others			(5) Sorting & door-to-door arrangement (reg'd)	
	Airmail (no-speed)					(6) Handling (ordinary)	
	Express & Spl. Del. (no-reg'd)		Surface			(7) Picking in airtel bag (ordinary)	
			Airmail			(8) Placing in airtel bag (registered)	
	Speed airmail					(9) Loading of airtel to vehicle	
	Registered	Surface	Non-Exp.	1st class		(10) Examining of vehicle before starting	
			Non-Spl.	Packages		(11) Attainment of airtel to vehicle	
		Airmail		Non-Exp. & Spl. Del.			(12) Handling of undelivered mail delivery record (registered)
				Exp. & Spl. Del.			(13) Handling of non-deliverable mail
						(14) Cleaning of vehicle	
					(A) Total time required for indoor preparation		
Foreign Mailing	Ordinary	Surface	Letters				
			Postcards				
			Printed matters				
			2nd class				
		Airmail	Small packet				
			Packages				
			Letters				
	Registered	Surface	Exp. & Spl. Del.				
			Others				
		Airmail	Exp. & Spl. Del.				
	Express & Spl. Del. (no-reg'd)		Surface				
			Airmail				
	Criteria to be used for distribution of time accrued						
	Ratio of items to be delivered (ordinary)						
Ratio of registered items to be delivered							
Ratio of items to be delivered (ordinary)							
Ratio of registered items to be delivered							
Ratio of items to be delivered (ordinary)							
Ratio of registered items to be delivered							
Ratio of all mail items to be delivered (ord. & reg'd)							
Ratio of all mail items to be delivered (ord. & reg'd)							
Ratio of registered items to be delivered							
Ratio of all mail items to be delivered (ord. & reg'd)							

Note: For column "time required", times measured in the "time sheet for indoor preparation (I) & (II)" (ODFORM 1) are transferred to corresponding columns of step of operation. After transferring, these times are distributed among the types of service on the basis of criteria for distribution.

ODFORM 6

REPRESENTATIVE WORKING TIME COMPUTATION SHEET (2)

Distribution table of delivery time for items delivered together with other type of service at a delivery point.

Classification	Number of delivery points (1)	Unit delivery time by type of service (2)	(1) x (2)	Delivery time for mail items delivered together with other types of service at a delivery point
Ordinary				(U)
Registered				(V)
Total				(W)

Notes:

1. Number of delivery points (X) for columns (E) of "Ordinary" and (F) of "Registered" in ODFORM 4 are transferred respectively to column (1).
2. Unit delivery times entered in column (2) for columns (E) of "Ordinary" and (F) "Registered" in the ODFORM 4 are transferred respectively to column (2).
3. "Time required for delivery" (Y) for column (6) in ODFORM 4 is transferred to box (W) in table above.
4. Total time required for delivery (W) is divided into (U) Delivery time for ordinary and (V) Delivery time for registered using the ratio (1) x (2) for ordinary and (1) x (2) for registered respectively.

ODFORM 7

REPRESENTATIVE WORKING TIME COMPUTATION SHEET (3)

Type of Service	Step of Operation				Riding Time (To Del. Area) (15) + (Outing Del.) (17) + (Returning from Del. Area) (18)	Delivery Time Needed		Total of Outdoor Working Time (B)	Total of Indoor and Outdoor Working Time (A)+(B)=(C) (C)	Number of Items Delivered (D)	Time Required for Delivery per Item (C)/D	
	Total of Working Time or No. of Items		For Single Type of Service per Delivery Point	For Two or More Than Two Type of Service Delivery Point								
				Ordinary		Registered						
Domestic mail	Ordinary	Surface	1st class									
			2nd class									
			Books									
			Packets									
			Others									
		Airmail (non-speed)										
	Express & Spl. Del. (non-reg'd)	Surface										
			Airmail									
	Registered	Surface	Non-Exp.	1st class								
			Non-Spl.	Packets								
			Others									
		Airmail	Exp. & Spl. Del.									
Non-Exp. Spl. Del.												
Exp. & Spl. Del.												
Foreign incoming	Ordinary	Surface	Letters									
			Postcards									
			Printed matters									
			1st class									
			Small packet									
		Packets										
	Airmail	Letters										
		Postcards										
		Printed matters										
	Registered	Surface	Exp. & Spl. Del.									
			Others									
	Express & Spl. Del. (non-reg'd)	Surface	Exp. & Spl. Del.									
Others												
Criteria to be used for distribution of working time to the type of service					Total working time for columns (15) (17) & (18) in ODFORM 3 is distributed using the ratio entered in column (A) of ODFORM 4	Delivery time by type of service entered in column (D) of ODFORM 4 are transferred here	Delivery time entered in column (U) ODFORM 6 is distributed using the ratio entered in column (N) of ODFORM 4	Delivery time entered in column (V) in ODFORM 6 is distributed using the ratio entered in column (I) of ODFORM 4	(B) = riding time and delivery time	(Sum total of column (A), working time for indoor preparation, of ODFORM 5 and (B), outdoor working time of ODFORM 7	Number of items entered in column (A) of ODFORM 4 is transferred here	

3. Outline of Survey for Mail Bag Weights and for Capacities and Weights of Mail Items by the Type of Service

1. Object of the survey

This survey is carried out in order to collect the data necessary for apportioning expenses of post offices and transportation charges to each type of service.

2. Outline of the survey

Mail items contained in arriving mail bags or mail bags dispatched, as the case may be are the object of the survey at post offices where the survey is conducted. In the survey, weights of mail bags and numbers of items/capacities, and weights of items contained in the mail bag concerned are measured, or checked, and recorded.

The intention is that average capacities and weights per item by the type of service may be calculated by data thus obtained.

As it will be difficult to conduct the survey in cases where the number of items for a certain type of service is extremely small, the survey may be conducted on items accepted at the post offices counter or collected from mail boxes.

3. Period of the survey

Period is for three days. A rough schedule will be as follows:

- 1st day — Arrangement and preparation of the survey in the morning and carrying out the survey in the afternoon
- 2nd day — Continuation of the survey
- 3rd day — Putting in order of survey results

4. Researchers

Officials of headquarters

5. Forms to be used

- WCFORM 1. Survey forms for mail bag weights.
- WCFORM 2. Survey forms for capacities and weights of items by the type of service.
- WCFORM 3. Forms for calculation of average capacities and weights per item by type of service. (Totalling sheet)

6. Necessary tools for the survey and units of measurement

- (1) Weighing scales for mail bags and mail items
(Units: Mail bag - 100 grams, Mail items - 1 gram)
- (2) Measures
(Measuring unit: CM (correct to one decimal place).)

7. Method of the survey

- (1) Allotment of number of mail bags to be sampled from the total mail bags by category of mail contained

Number of mail bags to be picked out for each category is planned by classifying incoming mail bags roughly into 1) ordinary letter mail only, 2) ordinary letter mail and parcel post mixed, and 3) parcel post only, etc., depending on actual conditions.

On arrangement of the above, average ratio of composition by category of mail in respect of mail bags addressed to own office is used as criteria.

- (2) Allotment by arriving schedule of number of mail bags to be sampled for each category of mail bag

Number of mail are further apportioned to each arriving dispatch according to the schedule. On apportioning number of mail bags to be sampled, all arriving dispatches are surveyed as far as possible, so that the sampling is not biased.

- (3) Survey on mail items accepted at the counter or collected from mail boxes

If there are certain categories of mail on which the survey cannot be carried out, or items for which data is not sufficiently gathered, it will be necessary to collect data from accepted or collected mail items. In this case, it is important to consult beforehand with the post offices concerned as to arrangement for the survey.

- (4) Sampled mail bags as planned by arriving mail schedule

These mail bags are weighed and the weights concerned are recorded in the form. Then these mail bags are opened together and classified into same groups. The mail items are then classified according to the type of service.

In the next step, the number of items, capacities, weights by type of service, are examined and recorded in WCFORM 2.

This procedure is the same in cases where the survey is conducted on items accepted and collected.

- (5) The following points should be noted in measuring capacities of mail items.
- a. Facing and stacking mail items by type of service on the culling table or the floor, the length, width and height of each stack is measured in mm.
 - b. The same type of mail items stacked are placed in a cardboard receptacle, and the capacity and weight are measured using measure and scale.
 - c. In measuring height of stacked mail items, the researcher places the palm of his hand lightly on the stack without exerting pressure, and the height is then taken.
 - d. In cases where a few items large in size, either in width or in length or both, are found while facing and stacking mail items, these items are removed and measured separately.
Thus only items similar in shape are grouped and measured together.
 - e. After carrying out the survey, capacity of mail items should be calculated by multiplying length of each side (length, width and thickness; unit: cm^3).

8. Method of putting together the survey results in order

After carrying out the survey, the completed WCFORMS 1 and 2 are summed up, and the results of the survey are carried over on totalling form, after that the total number of items by type of service is calculated.

WC FORM 1

SURVEY SHEET FOR MAIL BAG WEIGHTS

Transportation Route: _____ Post Office: _____

Category of Mail Bags						Remarks
Non-registered mail bags		Registered mail bags		Parcel (only) bags		
No. of bags	Weight Kg.	No. of bags	Weight Kg	No. of bags	Weight Kg	
						Total
						Average

Note: The unit of weight for mail bags shall be hundred grams.

WC FORM 2

SURVEY SHEET FOR CAPACITY AND WEIGHT OF MAIL ITEMS BY TYPE OF SERVICE

Date: _____ Post Office: _____

Type of Service	Survey Item	1	2	3	4	5	6	7	8	
	Number of items									
	Capacity cm ³	Length (mm)	HLW	HLW	HLW	HLW	HLW	HLW	HLW	HLW
		Weight (g)								

WC FORM 3

CALCULATION SHEET FOR CAPACITY/WEIGHT BY TYPE OF SERVICE

Transportation Route: _____

Type of Mail Bags: _____ Post Office: _____

Classification Type of Service	Total No. of items counted (1)	Total capacity (2)	Total weight (3)	Capacity per item (2)/(1)	Weight per item (3)/(1)
	pieces	cm ³	g	cm ³	g

4. Outline of Survey for Number of Stamps Affixed on Mail Items

1. Object of the survey

This survey is carried out in order to collect basic data to allot expenses such as those required for selling stamps at post office counters and those for manufacturing stamps.

2. Method of the survey

Number of stamps affixed on mail items, by type of service excluding those items bearing "meter stamps" (produced by franking machines), is surveyed on the items accepted or to be delivered during a fixed period is recorded in the form until the number reaches a predetermined figure.

3. Number of items to be surveyed

By the end of the survey, approximately 700 to 1,000 items will be surveyed on each type of service. If the survey is not biased with regard to the type of service, then the number of offices and the period in which the survey is to be carried out is optional.

SA FORM

SURVEY ON MAIL VOLUME BY NUMBER OF STAMPS AFFIXED & BY TYPES OF SERVICE

Office: _____

Survey Date: _____

Types of Service	Code	Volume of Mail by Number of Stamps Affixed									Total		
		1 pc.	2 pcn.	3 pcn.	4 pcn.	5 pcn.	6 pcn.	7 pcn.	8 pcn.	9 pcn.	No. of Mail (pieces)	No. of Stamps (pieces)	
Ordinary	1st class	101											
	2nd class	102											
	Books	103											
	parcels	104											
	Others	105											
	Air Mail	106											
Domestic Mail (Posted Only)	Exp. & Spl. Del. (Non-reg'd)	107											
	Surface	108											
	Airmail	109											
Registered	Surface	Speed Airmail	110										
		Non-Express/Spl. Delivery	111										
		Others	112										
	Airmail	Express/Spl. Delivery	113										
		Non-Express/Spl. Delivery	114										
	Express/Spl. Delivery	115											

Name of Postmaster

SA FORM

**SURVEY ON MAIL VOLUME BY NUMBER OF
STAMPS AFFIXED & BY TYPES OF SERVICE**

Survey Date: _____ Office: _____

Types of Service	Code	Volume of Mail by Number of Stamps Affixed									Total No. of Stamps (pieces)
		1 pc.	2 pcs.	3 pcs.	4 pcs.	5 pcs.	6 pcs.	7 pcs.	8 pcs.	9 pcs.	
Outgoing Foreign Mail	Letters	201									
	Postcards	202									
	Printed Matters	203									
	2nd Class Publication	204									
	Small Packets	205									
	Parcel Posts	206									
	Letters	207									
	Postcards	208									
	Printed Matters	209									
	Air Parcels	210									
Registered	Express/Spl. Delivery	211									
	Others	212									
Express/Spl. Delivery (Non-Registered)	Express/Spl. Delivery	213									
	Others	214									
Surface	Surface	215									
	Airmail	216									

Name of Postmaster _____

[II] Surveys to be conducted Every Year

– Cost Surveys –

In order to carry out a cost accounting every year, these cost surveys are indispensable.

Among surveys, such statistical data as expenditure, revenue, mail volume etc., may be relatively easily gathered from the Central Office or the regional offices. However, such data as working hours for staff by cost department, mail volume handled by cost department, etc., are not always known. Consequently, it will be necessary to include these surveys in periodical surveys to be carried out regularly at sampled offices chosen in advance as the cost survey post offices.

1. Expenditures and Revenues

Expenditures refer to charges incurred, whether paid or unpaid for operation, maintenance and other charges which are presumed to benefit the current calendar year. In the Bureau of Posts, the following are the items of expenditures:

1. Personal services which include pay proper, allowances for subsistence, overtime pay, premium for life, quarters, laundry whether commuted or not, or any allowances given in exchange for services rendered by officials, employees and laborers of the Bureau, etc.
2. Maintenance and other charges includes hauling expenses, supplies and materials, and other services like repairs, communication services, rents, interest and others.
3. Equipment or capital outlay includes land, land improvement and structures, equipment, loans outlay and investment outlay.

In the course of our study of Cost Accounting in the Bureau of Posts, there was difficulties in ascertaining expenditures of regional and national levels owing to current reporting system.

In the apportionment of costs the following data should be made available:

1. Number of personnel engaged in indoor and outdoor services and the number of working hours.
2. Output of mail sorters in the sorting of mails to arrive at a standard working hours.
3. Number of personnel entitled to uniform allowance in each type of service where they belong.
4. Number of employees engaged in mail operation and administrative services.
5. Number of working hours rendered as overtime in the operation of mail service.
6. Number of manpower in the post office level and regional level with their corresponding positions and monthly salaries.

In the determination of cost of mail items, not only personal services but also maintenance and other charges and supplies and materials are pre-rated.

Maintenance and other charges, and supplies and materials are composed of the following, (and the pertinent data for equitable apportionment of cost):

1. Traveling expenses whether the employee belongs to the post offices or regional level.
2. Gasoline allowance
Bicycle allowance – actual no. of LC's engaged in actual delivery of mail.
3. Mail contractor – amount should be segregated into air fare, railway, PM truck, bus, and ships and others.
4. P.O. rental – area in square meters divided into post offices with rentals and post offices free of charge.
5. And other charges classified in the same way as mentioned above.

In order to obtain the details of the expenses as mentioned above, the reports coming from post offices as well as the Regional office should be broken down into the exact requirement for use in cost accounting.

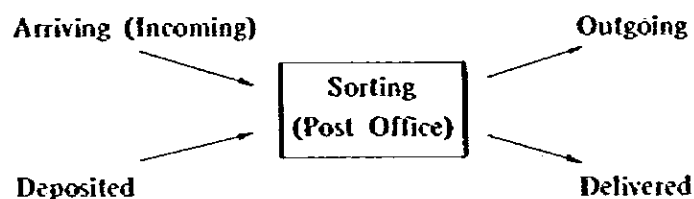
2. Mail Volume and Working Hours

In order to obtain the necessary data for the mail volume and working hours, our cost accounting team conducted a trial survey at approximately 300 post offices chosen in accordance with the statistical theory after considerable thought had been given to the subject by all members of the cost accounting study team. This trial survey, in the form of an inquiry, was conducted to make possible a cost accounting under the statistical data system current in 1978.

As such surveys will be indispensable in executing cost accounting in the future, the forms with detailed instructions used for this survey, including an official circular, are also included in this section.

As to the number of items received and dispatched to be used for cost accounting by cost department in addition to those deposited and delivered, it will be possible to obtain these data by providing separate columns for number of items received in CA FORMs 1A, 1B and 1C (See partially modified CA FORMs).

As the flow of mail items incoming and outgoing to and from a post office may be described as shown below, the following equation explains the relations between number of items by cost department:



[Equation]

$$\text{Deposited mail} + \text{Incoming mail} = \text{Mail delivered} + \text{Mail dispatched}$$

Consequently, the number of mail items dispatched can be obtained as follows:

$$\begin{aligned} &\text{Number of mail items delivered} \\ &= \text{Number of mail items deposited} + \text{Number of mail items arriving} \\ &\quad - \text{Number of mail items dispatched} \end{aligned}$$

Normally, in each post office, the number of mail items deposited and number of mail items delivered are not equal ($\text{Deposited} \neq \text{Delivered}$) and therefore, number of incoming items and number of items dispatched are also unequal ($\text{incoming} \neq \text{Dispatched}$).

On the other hand, it is possible to consider the mail volume on national level as " $\text{Deposited} = \text{Delivered}$ ", consequently, incoming volume may be regarded as equal to Dispatched volume.

Republic of the Philippines
Ministry of Public Works, Transportation and Communications
BUREAU OF POSTS
Manila

November 7, 1978

CIRCULAR NO. 53
SUBJECT: Cost Accounting Survey in the Bureau of Posts

The Postal Cost Accounting Study, composed of selected personnel from the Central Office and assisted by experts from the Japanese Postal Administration, will start the actual survey on November 13, 1978. The survey is aimed at providing data for the adoption of cost accounting in the Bureau of Posts.

To achieve its objective the following data are needed:

a) Mail Volume, b) Expenditure, c) Personnel Force, d) Working Time, e) Revenue and f) P.O. Quarters (space).

(Appropriate forms and survey sheets, complete with instructions on how to accomplish them, have already been finalized, printed and ready for distribution.)

In zeroing in on the final output, the survey will consider the Bureau's cost and income both in totality and units. It is necessary that all costs and revenues will be accounted in the post office, regional and central office levels (including distribution centers), irrespective of funding source.

Since the main objective of the study is to come up with a rational basis for postage rate-fixing, the centralized calculating system has been adopted in which various data required are all gathered at the central office where computation by item of expenditure and type of service may be performed for all post offices and other postal units.

This actual cost accounting is calculated to provide decision-making with basic data for determining the appropriateness of postage rates and for management and operational control. It goes without saying that accurate data not "guesstimates" are the object of this survey.

As the bulk of the mail volume and postal transactions are concentrated in Metro Manila and the main thrust is directed on the region's distribution centers, central post office and other selected post offices. Survey on other post offices outside Region IV will be conducted by mail.

In view thereof, it is directed that all concerned, those in the Central Office as well as those in the regions, from the regional directors down the line, commit themselves and devote the time necessary to make this survey a successful one.

FELIZARDO R. TANABE
Acting Postmaster General

November 7, 1978

**MEMORANDUM for --
The Postmaster**

This is addressed to you directly because of time constraints involved and the urgency of statistical inputs for decision-making.

The attached forms are intended to realize the overall objective of the Postal Cost Accounting Study, which is to introduce cost accounting system in the Bureau of Posts. This actual cost accounting survey is intended to provide basic data for determining the appropriateness of postage rates aside from assisting postal planning in general.

You are directed to fill up the forms as accurately as possible using current data. In accomplishing the forms you are warned not to guess, always bearing in mind that what you are supplying the Central Office will be the basis of a comprehensive postal planning. Effective planning must be based on accurate data, among others. For your convenience, the forms and survey sheets designed to draw out data have been simplified.

Completed forms should be returned _____ days upon receipt to:

The Postal Cost Accounting Study
Management Section, FMD
Bureau of Posts
Manila

Strict compliance herewith is enjoined.

FELIZARDO R. TANABE
Acting Postmaster General

Copy furnished:
The Regional Director
The DPI

SAMPLING SURVEY (By Mail)

I. WHAT IT IS ALL ABOUT

This is a sampling survey on mail volume, working hours and money orders (domestic and international), separate from those for Region IV's Airmail Distribution Center, Foreign Surface Mail DC, Domestic Surface Mail DC and Central Post Office and other Regional DC's. Appropriate forms have been sent out to some 300 post offices of all classes. It is intended to provide data for the introduction of regular cost accounting surveys in the Bureau of Posts starting 1979.

II. METHODOLOGY

To assist decision-making on this score, the Bureau's expenditures by item are being calculated first, followed by calculation by work department (activity) and then by type of service (1st, 2nd and 3rd classes). The computations and summaries will be performed at the Central Office where all costs and revenues (income) will be compared to determine, among others, the appropriateness of postage rates.

III. THE SURVEY FORMS

For the Mail Survey alone four (4) forms are utilized, namely: CA-Form 1 (POST AND DELIVERED Mails); CA-Form 2 (Contents of a Mail Bag); CA-Form 3 (Working Hours) and Supplementary Form (Money Order Issued and Paid).

IV. HOW TO FILL UP THE FORMS

Upon receipt of the forms, the Postmaster who will be responsible for filling them up, should familiarize himself with them with the survey objective in mind. The following instructions should be strictly followed:

CA-Form 1:

1. This is intended to gather data for one whole day, preferably Thursday, which is considered average day. Under the POSTED column, mails are categorized into: 1) those accepted over the counter (window) and 2) those collected from street and lobby drop boxes.
2. Under DELIVERED column, ordinaries, special/express and speed airmails are segregated under the ordinary mail sub-column. Only special delivery mails actually delivered as such by special delivery letter carriers (separate from ordinaries) are to be entered here.
3. Lack of mail volume data being a major weakness of the Bureau, care should be taken to make this portion as accurate as possible. Remember: **ONLY DATA FOR THURSDAY SHOULD BE COUNTED AND ENTERED.** No guessing.

4. Mail counting is reckoned with at the receiving stage so that left-overs are disregarded when counting the day's mail.

CA-Form 2:

1. This form seeks to determine the contents of mail bags by each mode of transport for a THURSDAY i.e. Philippine Mail Truck, Inter-island Ship, PNR, Airplane and other mail contractors.

2. Only contents by type of service of ONE SAMPLED BAG is entered under each column.

3. Each mode of transport is broken into four (4) categories namely, parcel bag, inter-island ship, ordinary bag with IRS inside and ordinary bag with parcels and ordinary items.

4. Buses and other unspecified mode fall under the column "OTHER MAIL CONTRACTORS".

CA-Form 3:

1. Through this form working hours of employees by type of service and by work department (indoor and outdoor) are ascertained.

2. Cost accounting by department is the calculating procedure by which the costs computed by item are classified and tabulated depending on where the activity originates. For our purpose activities or departments are enumerated as follows: Counter service i.e. acceptance, money order, postage sales; mail processing, receiving and dispatching and delivery (ordinary mail, special/express delivery and speed airmail, etc.

3. First column is filled up with the names of personnel in the post office followed by their positions and annual salaries.

4. Each succeeding column is to be filled up with the number of hours a particular employee spends per day by work department. (See sample).

5. Indicate number of hours spent on each activity i.e. Letter Carrier: 2 hours sorting; 6 hours delivering, etc.

V. DEADLINE FOR SUBMISSION

Accomplished forms should be sent back through the fastest means available within 24 hours after the first Thursday after receipt. For example: if the forms are received on any day before the specified day for completion (Thursday), the same shall be returned, completed, not later than Friday. On the other hand, if the forms are received on a Thursday, they should also be returned not later than the following Friday.

All survey forms, when fully accomplished, should be sent to:

**THE POSTAL COST ACCOUNTING STUDY
MANAGEMENT SECTION, F. M. D.
BUREAU OF POSTS
MANILA**

CA FORM 1-A

**SURVEY ON MAIL VOLUME BY TYPE OF SERVICE
(TO BE ACCOMPLISHED BY POSTMASTER)**

Survey Date: _____ Post Office: _____

Types of Service	Mail Volume (in pieces)	Code	Posted			Delivered			Arrival
			Window Acceptance	Drop Box Collection	Sub-Total	Ordinary Mail #	Express/Spl. Del. **	Speed Airmail	
Ordinary	1st Class	101							
	2nd Class	102							
	Books	103							
	Parcels	104							
	Others	105							
Domestic Mail (Posted only)	Airmail	106							
	Surface	107							
	Express/Spl. Del. (Non-Registered)	108							
	Speed Airmail	109							
Registered	Surface	Non-Exp. & Spl. Del.	110						
		Parcels	111						
		Others	112						
Registered	Airmail	Express/Spl. Del.	113						
		Non-Exp./Spl. Del.	114						
		Express/Spl. Del.	115						
Totals									

Note: * Shall include special delivery mails delivered by letter carriers together with ordinary mails.

** Shall include only special delivery mails actually delivered as such by special delivery, letter carriers separate from ordinaries.

Name and Signature of Postmaster

**SURVEY ON MAIL VOLUME BY TYPE OF SERVICE
(TO BE ACCOMPLISHED BY POSTMASTER)**

Types of Service	Mail Volume (in pieces)	Code	Posted			Delivery				
			Window Acceptance	Drop Box Collection	Sub-Total	Ordinary Mail **	Express/Special Delivery **	Speed Airmail	Sub-Total	Arrival
Ordinary	Letters	201								
	Postcards	202								
	Printed Matters	203								
	2nd Class Publications	204								
	Small Packets	205								
	Parcel Posts	206								
Outgoing Foreign Mail	Letters	207								
	Postcards	208								
	Printed Matters	209								
	Air Parcels	210								
	Express/Spl. Delivery	211								
	Others	212								
Registered	Surface	213								
	Airmail	214								
Express/Spl. Delivery (Non-Registered)	Surface	215								
	Airmail	216								
Totals										

Survey Date: _____ Post Office: _____

Note: * Shall include special delivery mails delivered by letter carriers together with ordinary mails.

** Shall include only special delivery mails actually delivered as such by special delivery letter carriers, separate from ordinaries.

Name & Signature of Postmaster

**SURVEY ON MAIL VOLUME BY TYPE OF SERVICE
(TO BE ACCOMPLISHED BY POSTMASTER)**

Survey Date: _____ Post Office: _____

Types of Service	Mail Volume (in pieces)	Code	Ported			Delivery				
			Window Acceptance	Drop Box Collection	Sub-Total	Ordinary Mail **	Express/ Special Delivery ***	Speed Airmail	Sub-Total	Arrival
Incoming Foreign Mail	Letters	301								
	Postcards	302								
	Printed Matters	303								
	2nd Class Publications	304								
	Small Packets	305								
	Parcel Post	306								
Ordinary	Letters	307								
	Postcards	308								
	Printed Matters	309								
	Air Parcels	310								
Registered	Express/Spl. Delivery	311								
	Others	312								
Express/Spl. Delivery (Non-Registered)	Express/Spl. Delivery	313								
	Others	314								
Totals	Surface	315								
	Airmail	316								

Note: * Shall include special delivery mails delivered by letter carriers together with ordinary mails.

** Shall include only special delivery mails actually delivered as such by special delivery letter carriers, separate from ordinaries.

Name & Signature of Postmaster

**SURVEY ON THE CONTENTS OF MAIL BAGS RECEIVED
(TO BE ACCOMPLISHED BY POSTMASTER ON A WEDNESDAY OR THURSDAY)**

Survey Date: _____ Post Office: _____

Type of Service	Mode of Transportation and Class of Bags	Code	Number of mail items contained in a sampled bag taken at random from bags received from other P.O.'s/D.C.'s by mode of transportation & class of bag																
			R.P. Mail Vehicle			Inter-Island Vessels			Airplanes			Trains			Other Mail Contractors			Totals	
			Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/ R.S. Inside	Ord. Bag with Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/ R.S. Inside	Ord. Bag with Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/ R.S. Inside	Ord. Bag with Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/ R.S. Inside	Ord. Bag with Parcels & Ord. Items	
Domestic Mail (Posted Only)	Ordinary	1st Class																	
		2nd Class																	
		Books & Parcels																	
	Surface	Other																	
		Airmail (Non-Speed)																	
	Exp./Spl. Del. (Non-Reg'd)	Surface																	
		Airmail																	
		Speed Airmail																	
	Registered	Surface	1st Class																
			Parcels																
Airmail		Others																	
		Exp./Spl. Del.																	
Total	Non-Exp. & Spl.																		
	Exp./Spl. Del.																		
	Non-Exp./Spl. Del.																		
Airmail Exp./Spl. Del.																			
Total																			

Note: Only the contents by types of service of one sampled bag shall be entered under each column

Name & Signature of Postmaster

**SURVEY ON THE CONTENTS OF MAIL BAGS RECEIVED
(TO BE ACCOMPLISHED BY POSTMASTER ON A WEDNESDAY OR THURSDAY)**

Survey Date: _____ Post Office: _____

Types of Service	Mode of Transportation and Class of Bags	Code	Number of mail items contained in a sampled bag taken at random from bags received from other P.O.'s/D.C.'s by mode of transportation & class of bags																	
			R.P. Mail Vehicle			Inter-island Vehicles			Airlplanes			Trains			Other Mail Contractors			Totals		
			Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/1 R.S. Inside	Ord. Bag w/Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/1 R.S. Inside	Ord. Bag w/Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/1 R.S. Inside	Ord. Bag w/Parcels & Ord. Items	Parcel Bag	S.S. Bag (Reg.)	Ordinary Bag w/1 R.S. Inside	Ord. Bag w/Parcels & Ord. Items		
Outgoing Foreign Mail	Ordinary	Letters																		
		Postcards																		
		Printed Matters																		
	Surface	2nd Class Publications																		
		Small Packages																		
		Parcel Posts																		
	Airmail	Letters																		
		Postcards																		
		Printed Matters																		
	Surface	Air Parcels																		
		Express/Spl. Del.																		
		Others																		
	Registered	Express/Spl. Del.																		
		Others																		
		Surface																		
	Express/Spl. Del. (Non-Reg'd.)	Surface																		
Airmail																				
Totals																				

Note: Only the contents by types of service of one sampled bag shall be entered under each column

Name & Signature of Postmaster

**SURVEY ON THE CONTENTS OF MAIL BAGS RECEIVED
(TO BE ACCOMPLISHED BY POSTMASTER ON A WEDNESDAY OR THURSDAY)**

Survey Date: _____ Post Office: _____

Types of service	Mode of Transportation and Class of Bags	Code	Number of mail items contained in a sampled bag taken at random from bags received from other P.O.'s/D.C.'s by mode of transportation & class of bag																
			R.P. Mail Vehicle			Inter-Island Vessels			Airplanes			Trains			Other Mail Contractors			Totals	
			Parcel Bag	S.S. Bag (Reg.)	w/I.R.S. Inside	Old Bag w/Parcels & Ordinary Items	Parcel Bag	S.S. Bag (Reg.)	w/I.R.S. Inside	Old Bag w/Parcels & Ordinary Items	Parcel Bag	S.S. Bag (Reg.)	w/I.R.S. Inside	Old Bag w/Parcels & Ordinary Items	Parcel Bag	S.S. Bag (Reg.)	w/I.R.S. Inside	Old Bag w/Parcels & Ordinary Items	
Incoming Foreign Mail	Ordinary	Letters																	
		Postcards																	
		Printed Matters																	
Ordinary	Surface	2nd Class Publications																	
		Small Packets																	
		Parcel Posts																	
Registered	Surface	Letters																	
		Postcards																	
		Printed Matters																	
Registered	Airmail	Air Parcels																	
		Express/Spl. Del.																	
		Others																	
Express/Spl. Del. (Non-Reg'd.)	Airmail	Express/Spl. Del.																	
		Others																	
		Surface																	
Totals																			

Note: Only the contents by types of service of one sampled bag shall be entered under each column

Name & Signature of Postmaster

Supplementary Survey Questionnaire

Post Office: _____

Survey Date: _____

**I. Survey on Daily Number of Mail Bags Received from Other P.O.'s/D.C.'s
by Mode of Transportation
(to be accomplished by Postmaster on Wednesday or Thursday.)**

Particulars of Mail Bags Mode of Transportation	Bags Containing Parcels only	Ordinary Bags W/I.R.S. Inside	S.S. Mail Bags (Registered only)	Ordinary Bags W/Parcels & Ord. Items	Totals
R.P. Mail Vehicles					
Inter-Island Vessels					
Airplanes					
Trains					
Other Mail Contractors					
Totals					

II. Number of Money Orders Issued & Paid (in pieces)

Domestic		International	
Issued	Paid	Issued	Paid

III. Number of Stamps Sold

(in pieces)

Name & Signature of Postmaster

3. Survey on Unit Revenue

1. Purpose of the survey

It is necessary to undertake this kind of survey in order to determine the revenue for each type of service per mail item.

2. How to conduct the survey

It is done by getting the amount of postage stamps affixed and that of meter stamps franked by metered machine per piece of mail item for each type of service again in sampled post offices.

3. How to tabulate the survey result

The total amount of postage stamps affixed or meter stamps and the total number of mail items gathered are tabulated and are computed by dividing the former data by the latter to get the unit revenue per type of service. Under Column C (total amount of postage stamps affixed or metered) and Under Column A (number of mail items) for each type of service in URFORM 1 (see Page 177) are tabulated and the quotient of these data will be the final column for Unit Revenue.

URFORM 2

TABLE OF UNIT REVENUE

Type of Service	Stamps Affixed	Metered Mail
	P	P

UNIT REVENUE SURVEY SHEET

Stamps Affixed :
Metered Mail :

Domestic Mail	Type of Service		No. of pos (A)	Amt./ unit (B)	Total amt. (A)(B)	No. of pos (A)	Amt./ unit (B)	Total amt. (A)(B)	No. of pos (A)	Amt./ unit (B)	Total amt. (A)(B)	No. of pos (A)	Amt./ unit (B)	Total amt. (A)(B)	Total		
															A	C	
Domestic Mail	Ordinary	Surface															
		1st Class		0.30				0.90			1.20			1.50			
		2nd Class		0.20		0.60		0.90			1.20			1.50			
		Books		0.80		1.20		1.80			2.40			3.00			
		Packets*															
		Others		0.20		0.60		0.90			1.20			1.50			
		Airmail		0.90		1.80		2.70			3.60			4.50			
	Exp./Spl. Del. (Non-Reg.)	Surface		0.45		0.75		1.05			1.35			1.65			
		Airmail		1.05		1.58		2.15			2.75			3.45			
	Speed Airmail	Surface		3.00		4.00		5.00			6.00			7.00			
Airmail			0.75		1.05		1.35			1.65			1.95				
Registered	Surface	Non-Exp. Del.															
		Packets*															
		Others*															
	Airmail	Expres./Spl. Del.		0.90		1.20		1.50			1.80			2.10			
		Non-Exp./Spl. Del.		1.35		2.25		3.15			4.05			4.95			
	Exp./Spl. Del.		1.30		2.40		3.30			4.20			5.10				

* Use separate form.

4. Depreciation

All fixed assets except land lose their usefulness with the passage of time. The several factors that contribute in varying degrees to this decline in utility are wear, the action of elements, inadequacy and obsolescence. Accordingly, the cost of such assets should be charged to expense in a systematic manner during this useful life.

This cost expiration that is periodically matched against revenue is called depreciation. Fixed assets are held for use rather than for sale and their market values are irrelevant. It is assumed that the enterprise will continue indefinitely as a going concern. Consequently, the decision to dispose of a fixed asset is based primarily on its utility to the enterprise rather than the amount that could be realized from its sale.

The factors to be considered in computing the periodic depreciation of an asset are its (1) cost (2) estimated scrap value and (3) estimated period of usefulness. The estimated remaining value of a depreciable asset, which is the amount expected to be realized upon its eventual disposition is frequently termed scrap value. The excess of cost over the estimated remaining value is the amount that is to be charged to depreciation expense during the life of the asset. We have computed the scrap value and the useful life of each fixed assets as per attached supplementary depreciation table (a) and (b) in accordance with the guideline issued by the Ministry of Finance.

The depreciation method most commonly used in the Philippines is the straight-line-method. This method of determining depreciation provides for equal periodic charges to expense over the estimated life of the asset.

The following symbols are used in the formulas:

C	=	Cost
S	=	Scrap value
n	=	Estimated life periods
r	=	Rate of depreciation (per period)
D	=	Depreciation per period

To illustrate, the cost of Building is P12,507,590.53, its estimated scrap value is P2,501,518, and its estimated useful life is 67 years. The annual depreciation is computed as follows:

$$D = (C - S)/n = \frac{12,507,590 - 2,501,518}{67 \text{ years}} = P149,344$$

The annual depreciation of P149,344 would be prorated for the first up to the last partial years of use.

However, in our cost accounting we adopted the average depreciation rate.

First, we grouped the assets into three categories as follows:

- A – Building
- B – Delivery Equipment
- C – Office Equipment

The different items that fall under each group of assets are indicated in the Supplementary Depreciation Table (a). In order to arrive at the average useful life of each group of assets except building we have to get the total depreciable value of the assets divided by the total amount of annual depreciation. In computing the annual depreciation rate we follow this formula:

$$\begin{aligned} D &= (1/n) (C - S) = r (C - S) \\ &= (1/67) (12,507,590 - 2,501,518) = 0.015 \times 10,006,072 \\ &= P149,344 \end{aligned}$$

The depreciation rate is 0.015 multiplied by the cost of building amounting to P10,006,072 equals P149,344. This represents the amount of annual depreciation expense considered as cost to be apportioned to the different types of service.

The cost of an asset is to be allocated not only in a single period of time but over a period of time.

With lapse of time, the total amount of fixed asset will never be equal for each year, since with lapse of time, there will be new assets to be added on the one hand, while, on the other, some fixed assets may become outdated and disappear from the account.

Consequently, depreciation values for the fixed assets have to be computed every year. The computation of depreciation value for each year is conducted using "The Supplementary Depreciation Calculating Table (b)".

It is necessary to re-examine the annual depreciation rates applicable to each group of assets A, B and C (See Supplementary Depreciation Calculating Tables) once every few years using the calculation method shown in "The Supplementary Depreciation Calculating Table (a)".

SUPPLEMENTARY DEPRECIATION TABLE (a)
DETERMINATION OF ANNUAL DEPRECIATION RATE

Group	Items of Assets	Amount of the Purchased Price of FY 1977 (1)	Percentage of Scrap Value (2)	Scrap Value (1) x (2) (3)	Depreciable Value (1) - (3) (4)	Life Span (5)	Depreciation Amount (4) / (5) (6)	Annual Depreciation (6) / (4) (7)
A	Building	₱ 12,507,590	20%	₱ 2,501,518	₱ 10,006,073	years 67	₱ 149,344	0.015
B	Delivery Equipment	₱ 33,966,593		₱ 6,745,807	₱ 27,220,786	years -	₱ 3,661,318	0.135
	(1) Trucks	25,729,917	20%	5,145,983	20,583,934	8	2,572,992	-
	(2) Motor Vehicles & Accessories	7,761,567	20%	1,552,313	6,209,254	6	1,034,876	-
	(3) Mechanical Equipment	475,109	10%	47,511	427,598	8	53,450	-
C	Office Equipment & Others	₱ 17,493,239		₱ 1,749,323	₱ 15,743,916	years -	₱ 703,117	0.045
	(1) Furnitures	13,567,063	10%	1,356,706	12,210,357	20	610,518	-
	(2) Non-expendable	50,403	10%	5,040	45,363	10	4,536	-
	(3) Technical and Science Equipment	1,479,540	10%	147,954	1,331,586	20	66,579	-
	(4) Fire Fighting Equipment	119,354	10%	11,935	107,419	5	21,484	-
	(5) Others	2,276,879	10%	227,688	2,049,191	0	-	-

- Notes:
1. Source - Journal of Warrants Issued.
 2. Life Span and percentage of scrap value is based on the guidelines issued by the Ministry of Finance.
 3. Percentage of scrap value
 - A. Building - 20% of the purchased price.
 - B. Delivery Equipment - 20% of the purchased price except mechanical equipment which is 10%.
 - C. Office Equipment - 10% of the purchased price.

SUPPLEMENTARY DEPRECIATION TABLE (b)

CALCULATION TABLE OF ANNUAL DEPRECIATION

Fiscal 19--

Group	Item of Assets	Amount of the Purchased Price in the Beginning of FY 19-- (1)	Amount of the Purchased Price at the End of FY 19-- (2)	The Average Amount of the Purchased Price $(1)+(2)/2$ (3)	Per-centage of Scrap Value (4)	Scrap Value (3) x (4) (5)	Depreciable Value (3) - (5) (6)	Depreci-ation Rate (7)	Depreciation of FY 19-- (6) x (7) (8)
A	Building	₱	₱	₱	20%	₱	₱	0.015	₱
B	Delivery Equipment	₱	₱	₱	%	₱	₱	0.135	₱
	(1) Trucks				20			-	-
	(2) Motor Vehicles & Accessories				20			-	-
	(3) Mechanical Equip-ment				20			-	-
C	Office Equipment & Others	₱	₱	₱	%	₱	₱	0.045	₱
	(1) Furnitures				10			-	-
	(2) Non-Expendable				10			-	-
	(3) Technical and Science Equipment				10			-	-
	(4) Fire Fighting Equipment				10			-	-
	(5) Others				10			-	-
	Total	₱	₱	₱	-	₱	₱	-	₱

(REFERENCE)

1. Depreciation Allowance of Machinery:

For purpose of assessment, a depreciation allowance shall be made for machinery at a rate not exceeding ten percent of its original cost or its replacement or reproduction cost (new), for each year of use: Provided, that the remaining value for all kinds of machinery shall be fixed at not less than 20% of such original or replacement cost for so long as the machinery is useful and in operation.

2. Article VIII – Assessment

Sec. 5: Rules for assessment of buildings and other improvements:

Buildings and other improvements owned by the Republic of the Philippines, its political subdivisions and government owned corporations shall be classified, valued and assessed like similar buildings and improvements in the locality. If the buildings and improvements are of a kind not covered by the schedule of base unit construction cost, they shall be valued at their fair market value at the time of appraisal and shall be assessed like similar buildings and improvements in the locality.

3. Depreciation Rate Tables

Buildings299
Buildings Equipment300
Office Equipment335
Motor & Other Vehicles337
Oil & Gas339
Production342
Transportation344
Printing & Publishing350
Motor Transportation369

4. Average Useful Life Years

- o 338-Office Equipment = A composite life of about 15 years has been found applicable to office equipment:

Furnitures, fixtures and filing cases	20 years
Mechanical Equipments	8 years
Sales	50 years
Adding Machines	10 years
Mailing Machines	15 years
Cabinets	15 years
Calculators	10 years

	Bookeeping Machines	8 years
	Duplicating Machines	10 years
	Safes & Vaults	50 years
	Typewriters	5 years
	Fans, Electric	10 years
o	299-Buildings	
	Office Buildings	67 years
	Apartments	50 years
o	337-Motor & Other Vehicles	
	Motorcycles	4 years
	Trucks:	
	Outside Use;	
	Electric	10 years
	Gas, Light	4 years
	Medium	6 years
	Heavy	8 years
	Inside Use	15 years

5. Survey of Rent Free Post Offices

This survey is intended to ascertain the expenses for the operation and maintenance of the rent free post office buildings not shared by the Postal Administration.

SURVEY OF RENT FREE POST OFFICE QUARTER

Survey date

Post Office _____
Province _____
Region _____

INSTRUCTION: Check items which best describe your post office.

A. OWNERSHIP OF BUILDING:

- _____ Situated in building owned by Bureau of Posts
_____ Situated in private building
_____ Situated in government building

B. BUILDING MATERIALS:

- _____ Concrete
_____ Semi-Concrete
_____ Light Materials

C. AGE & CONDITION OF BUILDING:

- _____ New/Relatively New (1 - 10 years)
_____ Old but serviceable
_____ Old and dilapidated

D. APPROXIMATE FLOOR AREA _____ sq. m.
(length x width)

**E. APPROXIMATE EXPENSES FOR YEAR 1977
IF WE WERE MADE TO PAY FOR LIGHT AND WATER**

P _____

NAME & SIGNATURE OF POSTMASTER

II. SURVEY RESULTS

Among the various surveys carried out by the cost accounting team, the following are the results so far obtained:

Examining the contents of these survey results, it is apparent that they are well arranged, the object having been fully understood, in spite of the limited time available.

In this way, through engaging directly in the conduct of various surveys required for cost accounting, valuable experience for improvement of the cost accounting system will be gained.

With regard to the survey results shown in this section, the following points have been noted:

(1) Expenditure and Revenue

Generally speaking, the survey results were well arranged. However, in the item "Life and Retirement" in FORM 101, if the total amount ₱5,700,000 is paid by the Government, "Non-cost" will not be originated.

(2) Unit Revenue

- a. It will be also necessary to calculate weighted average unit revenues for stamp affixed items and for metered mail items both by type of service so that a comparison may be possible.
- b. Although this survey will be conducted every year regularly for all types of service, survey results should not be applied directly as fixed figures. It is vitally important to modify the unit revenues partially or for all types of service after examining the multiplied results of the annual mail volume by type of service and unit revenue, so that the revenue entered in the item concerned shown in the Operating and Service Income corresponding to the product obtained.

i.e.:

Revenue for a certain type of service

= Unit revenue for the service x Annual volume for the service

(3) Unit Weight and Capacity

Survey results for unit weights and unit capacities for mail items can be used continuously for years so far as such revisions as postal rates, modification of service details etc., which may influence unit weights and unit capacities of mail items may be carried out.

Consequently, it will be necessary to pay attention to a sufficient number of items for all types of service.

(4) Mail Volume Data

It may easily be presumed that all members of the counterpart members noted that summing up of the survey results requires fairly hard work. However, the effort may be rewarding.

- a. As to the number of mail items deposited, if available, reliable statistical data for mail volume other than the results obtained through the cost surveys should be employed in the calculation. For other cost departmental mail volume data, it is important to modify the mail volume data obtained through cost surveys by multiplying the ratio (ACC / ACC'), a ratio between the number of mail items accepted, obtained through the cost survey (ACC) and the statistical data in question (ACC'), by the number of items for each cost department of incoming, dispatching and delivery obtained through cost surveys.

In order to avoid making the computation process overly complicated, it is convenient in various aspects to treat the nationwide mail volume (number of mail items) by type of service as follows:

$$\begin{aligned} \text{Acceptance} &= \text{Delivery} \\ \text{Incoming} &= \text{Dispatching} \end{aligned}$$

- b. It is difficult to decide a multiplier to extrapolate monthly or annual number of mail items on the basis of survey results obtained during fixed periods since there are fluctuations in mail volume over months, days, and days of the week, and since also daily mail volume reflects influences of these fluctuations. For the time being, we were obliged to utilize a multiplier "288" obtained simply on the basis of the number of working days in a year. This is a question, however, to be examined hereafter, even if it is not related to cost accounting.

(5) Calculation of Unit Costs by Type of Service at the CPO, FSMDC, DSMDC and ADC

The cost accounting team members will have gained confidence since the cost accounting at 4 specialized offices (CPO, FSMDC, DSMDC and ADC) reached unit cost by type of service.

According to the observation made for unit costs shown in the form SPO 8, it is seemed that they are much smaller than expected. In order to obtain these unit costs, there should be 8 steps from calculating tables SPO 1 to SPO 8 for each specialized office. It will be necessary to re-examine the calculation processes from SPO 1 to SPO 7.

As to the contents of SPO 8, there will not be specific problems in grand totals shown in the columns "Total Cost", since these annual amounts were settled amounts for each of the 4 specialized offices. However, as to mail volume, we wonder whether the number of mail items handled at each section has been counted repeatedly, which would be an error.

For example, in the form CA-DSMDC-1 and CA-DSMDC-3, departmental mail volumes (number of mail items by department) for "Receiving", "Processing" and "Dispatching" are summed up and the sum totals are entered in the "Total" column. If these sum totals of mail volumes for each department are utilized for calculations, the unit costs appear small and are insignificant.

In cases where costs by type of service in a department are calculated on the basis of the departmental costs, it is reasonable and appropriate that costs be apportioned to each type of service using number of mail items by type of service etc. in each of the cost departments.

However, in computing unit cost at a post office, number of mail items to be used is the number of incoming or outgoing items, but not the total number of items handled in each cost department of the post office. The calculation is conducted as follows:

Unit cost by type of service

$$= \frac{\text{Total of costs by department and by type of service}}{\text{Number of incoming and deposited items by type of service} \text{ or } \text{Number of despatched and delivered items by type of service}}$$

From the foregoing, unit costs shown in pages from 200 are not actual unit costs.

The reason why the cost accountings for these 4 specialized offices have been separated from other ordinary post offices, has already been explained. However, since the services for mail items are not accomplished exclusively by these 4 specialized offices from acceptance and transportation to delivery but through the whole network of the country, a computation of unit cost should be essentially conducted on a nationwide basis using FORM 319 "Calculation of Unit Cost".

However, if purpose is a management analysis for the operation of mail handling at these 4 specialized offices, it will be an effective method for cost control to compare the results obtained in each office, or chronologically, by calculating conditional unit costs and dividing expenses for mail service operations by number of items handled for each specialized office, or for each section of these offices. In this case, it will be necessary to decide carefully what should be used for the number of items handled for the calculation of conditional unit costs.

1. Expenditures and Revenues

The Bureau of Posts reported an income of P140,516,703.87 for calendar year 1977. Out of this income, the Postmaster General is authorized to use 15% purely from the sales of stamps for non-recurring expenditures intended for the improvement of the service, subject to the provisions of Sec. 40 of Presidential Decree No. 1177, provided that all receipts shall be deposited with the National Treasury as income of the General Fund.

STATEMENT OF INCOME For the month of December, 1977

<u>Account Code</u>	<u>Account Title</u>	<u>Current Month</u>	<u>Total to Date</u>
56	OPERATING & SERVICE INCOME		
-100	Stamps Sales	P 383,750.89	P 20,051,708.29
-101	First Class Mail Permit	25,361.50	333,860.51
-102	Second Class Mail Permit	33,201.02	521,238.34
-103	Third Class Mail Permit	7,780.40	146,222.05
-105	Metered Mail (PM & Private)	6,800,507.38	28,163,305.92
-106	Box Rental	132,879.60	1,509,746.06
-107	Storage Fees	412.19	39,158.23
-108	Business Reply Envelope	60,345.65	387,218.29
-109	Miscellaneous	15,733.07	23,991.03
-201	Money Order Fees	480,152.23	1,967,504.29
	56 - Total	<u>P 7,940,123.93</u>	<u>P 55,143,953.01</u>
57	MISCELLANEOUS		
-200	Prior Years Credit	(673,865.81)	896,653.44
-800	Fines and Penalties	9,872.54	72,405.44
-900	Others	52,406.82	760,182.60
	57 - Total	<u>P (611,586.45)</u>	<u>P 1,729,241.48</u>
58	SALE OF ASSETS		
-200	Sales of Assets	36,676.91	61,603.39
	TOTAL INCOME - GENERAL FUND	<u>P 7,365,214.39</u>	<u>P 56,934,797.88</u>
56	OPERATING & SERVICE INCOME		
-400	Domestic Airmail Fees	293,612.15	8,856,668.50
-400	Domestic Airmail Postage	1,040,443.35	3,916,208.90
-500	For. Airmail Fees (unmetered)	2,227,703.38	12,385,447.17
-500	For. Airmail Fees (metered)	34,842.00	13,610,026.10
-500	For. Airmail Post (unmetered)	2,087,576.50	15,816,969.95
-500	For. Airmail Post (metered)	739,908.08	19,231,346.24
-500	For. Airmail Income (unmetered)	52,939.95	1,754,458.91
-500	For. Airmail Income (metered)	699,279.70	5,044,743.64
	56 - Total	<u>P 7,095,621.11</u>	<u>P 80,615,869.41</u>
57	MISCELLANEOUS INCOME		
-200-(500)	Prior Years Credit	761,097.32	2,897,395.41
-900-(500)	Others	6,910.27	68,641.17
	57 - Total	768,007.59	2,966,036.58
	TOTAL AIRMAIL INCOME	<u>7,863,628.70</u>	<u>83,581,905.99</u>
	GRAND TOTAL	<u>P 15,228,843.09</u>	<u>P140,516,703.87</u>

**TABLE OF EXPENDITURE AND COST
LUMP SUM**

Item		Classification		Code	Total	Cost	Non-cost	Remarks
Personnel Service	Salaries	Permanent		1	82,863,345.-	82,863,345.-		
		Casual		2	796,624.-	796,624.-		
	Allowances	Uniform		3	1,665,120.-	1,665,120.-		
		Post		4	331,402.-	331,402.-		
	Over time		5	7,114,033.-	7,114,033.-			
	Life & Retirement (Government scheme only)		6	5,700,000.-	2,972,638.46	2,727,361.54		
Sub-Total				7	98,470,524.-	95,743,162.46	2,727,361.54	
Maintenance & Operating Expenses	Travelling expenses			8	3,300,543.32	3,300,543.32		
	Sundries	Gasoline allowance		9	3,664,560.-	3,664,560.-		
		Bicycle allowance		10	152,640.-	152,640.-		
		Mail contractor		11	1,634,356.90	1,634,356.90		
		P.O. rental		12	48,007.73	48,007.73		
		Telephone & Telegram		13	143,346.-	143,346.-		
		Transportation of mail		14	29,213,259.03	29,213,259.03		
		Repairs		15	1,711,062.44	1,711,062.44		
		Training fees		16	670,396.63	670,396.63		
		Representation exps.		17	129,216.74	129,216.74		
		Printing stamps		18	919,808.-	919,808.-		
		Others		19	3,165,096.42	3,165,096.42		
Sub-Total				20	44,752,293.21	44,752,293.21		
Supplies & Materials	Printed forms			21	3,959,789.31	3,959,789.31		
	Light & Water			22	722,216.40	722,216.40		
	Gasoline			23	3,070,417.61	3,070,417.61		
	Spare parts			24	2,225,649.35	2,225,649.35		
	Office supplies			25	2,673,141.64	2,673,141.64		
	Others			26	10,939,288.48	10,939,288.48		
Sub-Total				27	23,590,502.79	23,590,502.79		
Depreciation				28	9,145,197.64	9,145,197.64		
Retirement gratuity				29	993,366.25	993,366.25		
Total				30	176,951,883.89	174,224,522.35	2,727,361.54	

Note: Some item of expenditures are not apportioned to different organization due to inadequate data and limited time.

* Other sundries – includes insurance expense, janitorial expense, meal allowance of employees etc. and other sundries paid by deputized disbursing officers of the regional offices which could not be identified due to limited time.

* Other supplies – includes electrical supplies and other supplies paid by deputized disbursing officers of the regional offices which could not be identified due to limited time.

FORM 102

SEPARATION OF COST BY ORGANIZATIONS

Item		Classification		Code	Total Amount	Post Office	Regional Office	Central Office
Personnel Services	Salaries	Permanent		1	82,863,345.-	67,797,389.06	9,253,235.94	5,812,720.-
		Casual		2	796,624.-	344,524.-	-	452,100.-
	Allowances	Uniform		3	1,665,120.-	1,502,520.-	-	162,600.-
		Post		4	331,402.-	331,402.-	-	-
	Over time		5	7,414,033.-	7,040,453.-	-	373,580.-	
	Life & Retirement (Governmental scheme only)		6	2,972,638.45	2,638,888.90	-	333,749.56	
Sub-Total				7	95,743,162.46	79,655,176.96	9,253,235.94	6,834,749.56
Maintenance & Operating Expenses	Traveling expenses			8	3,300,543.32	2,888,162.30	-	412,381.02
	Sundries	Gasoline allowance		9	3,664,560.-	3,664,560.-	-	-
		Bicycle allowance		10	152,640.-	152,640.-	-	-
		Mail contractor		11	1,634,356.90	1,634,356.90	-	-
		P.O. rental		12	48,007.73	48,007.73	-	-
		Telephone & Telegram		13	143,316.-	43,746.-	-	99,600.-
		Transportation of mails		14	29,213,259.03	28,987,459.-	-	225,800.03
		Repairs		15	1,711,062.44	-	-	1,711,062.44
		Training fees		16	670,396.63	-	-	670,396.63
		Representation exps.		17	129,216.74	-	-	129,216.74
		Printing stamps		18	919,808.-	-	-	919,808.-
		Others		19	3,165,096.42	1,489,486.91	-	1,675,609.51
Sub-Total				20	44,757,293.21	38,908,418.84	-	5,848,874.37
Supplies & Materials	Printing forms			21	3,959,789.31	-	-	3,959,789.31
	Light & Water			22	722,216.40	98,060.76	-	624,155.64
	Gasoline			23	3,070,417.61	2,672,720.40	-	397,697.21
	Spare parts			24	2,225,649.35	1,789,579.60	-	436,069.75
	Office supplies			25	2,673,141.64	-	-	2,673,141.64
	Others			26	10,939,288.48	9,973,362.40	-	965,926.08
Sub-total				27	23,590,502.79	14,533,223.16	-	9,056,719.63
Depreciation				28	9,145,197.64	9,145,197.64	-	-
Retirement gratuity				29	993,366.25	-	-	993,366.25
Total				30	174,224,522.35	142,242,516.60	9,253,235.94	22,728,769.81

2. Unit Revenue

Explanation of the Survey Results

The results of this survey in sampled post offices is incomplete - not all types of service were being surveyed due to shortage of time so that there is a need to conduct again future surveys for a more accurate and reliable survey results of this kind.

UNIT REVENUE

Type of Service				Code	Stamps Affixed	Metered Mail	
Domestic Mail	Ordinary	Surface	1st Class	101	P0.32	P0.32	
			2nd Class	102			
			Books	103			
			Parcels	104	P4.20	P3.79	
			Others	105	P0.51		
		Airmail (Non-speed)	106	P0.91	P0.98		
	Express & Spl. Del. (Non-Reg'd.)	Surface	Airmail	107			
			Airmail	108	P1.37	P1.40	
	Speed Airmail			109			
	Registered	Surface	Non-Exp. Non-Spl.	1st Class	110	P1.47	P0.95
				Parcels	111	P9.35	P8.57
			Others	112	P3.07	P4.35	
			Exp. & Spl. Del.	113			
		Airmail	Non-Exp. & Spl. Del.	114	P10.20	P8.25	
		Exp. & Spl. Del.	115				
Domestic Total				116	-	-	
Money Order			Issued (Item)	201			
			Paid (Item)	202			
Foreign Outgoing	Ordinary	Surface	Letters	301	P4.29	P8.50	
			Post Cards	302			
			Printed Matters	303		P2.85	
			2nd Class	304	P0.42	P0.40	
			Small Packet	305			
			Parcels	306			
		Airmail	Letters	307			
			Cards	308	P1.20		
			Printed Matters	309	P4.20	P8.90	
			Parcels	310	P50.80	P71.84	
	Registered	Surface	Exp. & Spl. Del.	311			
			Others	312			
		Airmail	Exp. & Spl. Del.	313	P0.89	P4.43	
			Others	314			
Express & Spl. Del. (Non-Reg'd.)	Surface		315				
	Airmail		316				

3. Unit Weight and Unit Capacity

Explanation of the Survey Results

The following data obtained are results of trial surveys conducted on some post offices. Number of items were inadequate for certain type of service and no surveys were made on some types of service due to limited time. There is a need therefore to conduct accurate surveys on all types of service in as many post offices as possible in the future in order to obtain accurate and reliable data.

UNIT WEIGHT & CAPACITY OF MAIL ITEMS BY TYPES OF SERVICE

Type of Service		Category		Code No.	Unit Weight (GRAMS)	Unit Capacity (CM ³)
Domestic	Ordinary	Surface	1st class	101	11.34	35.90
			2nd class	102	140.00	170.43
			Books	103	-	-
			Parcels	104	243.33	2,250.53
			Others	105	90.66	234.02
		Airmail (non-speed)		106	7.35	36.96
	Express & Spl. Del. (non-reg'd)	Surface	107	7.68	24.73	
		Airmail	108	9.76	27.21	
	Speed airmail			109	164.10	1,265.20
	Registered	Surface	Non-Exp.	110	153.33	497.69
			Non-Spl.	111	1,358.88	7,353.41
			Others	112	-	-
			Exp. & Spl. Del.	113	-	-
		Airmail	Non-Exp. & Spl. Del.	114	409.09	1,120.00
			Exp. & Spl. Del.	115	550.00	1,359.00
Domestic total						
Foreign outgoing	Ordinary	Surface	Letters	201	385.71	410.40
			Postcards	202	-	-
			Printed matters	203	25.76	384.87
			2nd class	204	100.66	271.99
			Small packet	205	-	-
			Parcels	206	-	-
		Airmail	Letters	207	5.95	18.45
			Cards	208	-	-
			Printed matters	209	625.81	186.97
			Parcels	210	1,691.20	17,094.00
			Exp. & Spl. Del.	211	-	-
	Registered	Surface	Others	212	-	-
		Airmail	Exp. & Spl. Del.	213	18.00	53.82
			Others	214	113.89	691.33
	Express & Spl. Del. (non-reg'd)	Surface	215	-	-	
Airmail		216	-	-		
Foreign incoming	Ordinary	Surface	Letters	301	-	-
			Postcards	302	-	-
			Printed matters	303	-	-
			2nd class	304	106.88	202.19
			Small packet	305	-	-
			Parcels	306	-	-
		Airmail	Letters	307	5.49	14.49
			Postcards	308	4.49	6.60
			Printed matters	309	168.00	200.27
			Air parcels	310	696.60	12,995.81
			Exp. & Spl. Del.	311	-	-
	Registered	Surface	Others	312	-	-
		Airmail	Exp. & Spl. Del.	313	7.5	251.00
			Others	314	69.68	265.50
	Express & Spl. Del. (non-reg'd)	Surface	315	-	-	
Airmail		316	31.44	118.48		
Foreign total						
Grand total						

Note: Trial surveys carried out at CPO, DSMDC, FSINDC, ADC, Angeles City P.O. & Dagupan City P.O. These data are the results of trial surveys. A phyphen indicates no survey result available.

4. Mail Volume

1. Mail Volume Data

A survey recently conducted shows that in the 12-month period from January 1 to December 31, 1978, the Bureau handles approximately 457 million pieces of various kinds of mail matter.

Domestic mail constitute 62.21% of the total. Mail intended for other countries account for only 18.07%, while mail coming from abroad share 19.72%. The mail received from abroad is 1.65% more than the mail sent out.

The attached tables show in detail:

Table 1 -- Approximate volume of mail handled for CY 1978

Table 2 -- Average mail volume handled daily

Table 3 -- Distribution ratio of the volume of mail handled

2. Necessity of Mail Volume Data

The approximate volume of mail handled by the Bureau during the year under review dictates the budget for operating expenditures which should be assigned for the succeeding calendar year.

3. Categories of Mails

Mails are either ordinary or special, with the latter also considered as recorded mail. Recorded mails include registered, special delivery, speed airmail, check letters, etc. Exception are ordinary parcels and foreign airmail which are also listed but are still classified as ordinary.

Mails are also classified as airmail or surface mails depending on the mode of conveyance used.

Another classification of mails are foreign and domestic mails.

4. Collecting Mail Volume Data

Being aware of the large volume of mails and their continuous flow through the post offices, daily individual count will be expensive, tedious and will disrupt the continuous flow, especially in big-volume offices. Thus, mail volume data has been generated by projection/extrapolation. Mail Volume survey has been carried out in sample post offices (see table for the distribution of sample post offices) from all postal regions all over the archipelago. The surveys in the Central Post Office, DSMDC, FSMDC and ADC (Tables 4 & 5) were personally supervised by the Cost Accounting Study Team, while surveys in other post offices were carried out by sending out questionnaires for the Postmaster to accomplish.

5. Methods Used and Factors Considered in Designing the Mail Volume Data Forms for Questionnaires

The formulation of the Mail Volume Data Questionnaires was based on all available information about the present system, previous postal studies, reading materials and on interviews and consultations with the concerned postal officials.

Initially, the Cost Accounting Study Team, undertook the identification of the type

of mail data to be collected and the points in mail processing operations at which these data should be collected. With these accomplished, the team then pondered on the formulation of mail volume questionnaire forms, taking into consideration the following:

- a) Who will use the information to be generated at present and in the future?
- b) In what forms should the information be?
- c) For what purpose will the information be used?
- d) Who will be greatly affected by the implementation of the mail volume survey?
Who will be benefited?
- e) Will the survey be too expensive?
Too time-consuming?
Will it involve additional manpower and the use of certain devices?
- f) Will it be accepted to the people involved?

DISTRIBUTION OF SAMPLE POST OFFICES

Classification of Post Offices	A-1	A-2	B	C	D	E	Total
Total No. of Post Offices (ΣN)	11	16	39	83	260	1,431	1,840
Total No. of Post Offices chosen as sample, and which were sent survey questionnaires (Σn)	11	16	23	25	39	100	213
Sample size chosen (in percent)	100%	100%	60%	30%	115%	7%	12%
Total No. of post offices that responded and returned survey questionnaires duly accomplished ($\Sigma n'$)	5	6	18	25	37	56	147
Post offices (in percent) that responded and returned survey questionnaires duly accomplished	45%	38%	78%	100%	95%	56%	69%

The Annual Mail Volume by categories were estimated by using the following formula:

$$AMV = \Sigma x / \Sigma n' \times N \times 288$$

Where:

AMV = Annual Mail Volume

Σx = Sum of the daily values taken from sample post offices of a certain class

$\Sigma n'$ = No. of sample post offices of that particular class

288 = Approximate number of working days during the year

TABLE 1. APPROXIMATE VOLUME OF MAIL HANDLED FOR CY 1978
(Projection)

Type of Service				Classification	Post Office Classification							
					A-1	A-2	B	C	D	E	Grand Total	
Domestic mail	Ordinary	Surface	1st class	101	22,656,479	9,045,475	10,538,927	17,177,932	15,552,653	25,945,374	150,751,725	
			2nd class	102	45,599,070	2,069,000	1,354,358	4,147,724	433,657	850,663	43,454,457	
			Books	103	977,612	45,920	5,743	57,521	20,090	29,843	1,151,731	
			Packages	104	49,454	10,619	17,507	56,252	26,417	59,479	239,358	
			Others	105	126,283	160,573	241,541	343,765	311,570	573,201	1,733,270	
			Airmail (non-speed)	106	13,355,049	2,292,269	2,252,376	2,875,601	3,293,325	11,420,364	35,669,924	
		Express & Spl. Del. (non-reg'd)	Surface	107	9,363,662	430,213	841,197	893,718	2,525,076	3,173,072	17,226,858	
	Airmail		108	456,170	563,955	227,617	388,593	316,561	1,356,936	3,332,245		
			Speed airmail	109	1,038,653	232,757	204,631	187,698	4,018	-	1,667,757	
		Registered	Surface	Non-Exp. 1st class	110	5,332,173	669,243	1,842,543	2,693,378	2,778,796	3,355,891	16,674,076
	Non-Spl. Parcels			111	129,437	14,637	10,653	49,651	60,557	83,934	353,871	
	Others			112	1,667,666	9,114	27,265	199,378	92,701	272,076	1,667,470	
	Exp. & Spl. Del.			113	568,260	37,213	80,934	57,974	141,240	263,353	1,143,444	
	Non-Exp. & Spl. Del.			114	1,269,114	567,320	211,856	768,102	342,956	683,353	3,663,851	
			Exp. & Spl. Del.	115	78,923	45,920	25,543	39,032	50,512	112,628	252,560	
Domestic total				116	145,977,292	16,135,533	17,960,477	29,352,664	26,310,734	47,837,447	284,513,537	
Money order	Issued (Item)			201								
	Paid (Item)			202								
Foreign outgoing	Ordinary	Surface	Letters	301	2,711,334	551,563	87,535	1,666,669	1,615,523	6,225,317	12,810,281	
			Postcards	302	34,727	18,368	14,350	51,337	104,181	270,928	430,831	
			Printed matters	303	1,477,476	29,848	35,301	151,536	923,223	688,276	2,505,510	
			2nd class	304	2,525,690	3,231	1,148	48,503	38,171	-	2,617,353	
			Small packet	305	9,471	1,435	6,314	10,332	22,673	30,956	81,271	
			Packages	306	78,925	8,223	24,058	48,503	15,428	-	175,357	
			Airmail	Letters	307	23,838,567	2,114,616	3,119,958	5,356,855	5,638,115	8,265,433	49,371,554
			Postcards	308	7,456,334	82,656	67,132	764,281	378,641	618,772	9,318,316	
			Printed matters	309	959,216	31,213	16,645	128,576	135,454	239,645	1,460,830	
			Packages	310	179,543	16,933	22,560	65,723	46,781	92,201	425,647	
		Registered	Surface	Exp. & Spl. Del.	311	3,157	21,525	10,655	-	13,716	108,199	165,312
	Others			312	1,341,125	-	19,603	300,292	351,602	255,143	2,274,475	
			Airmail	Exp. & Spl. Del.	313	-	5,433	9,184	-	12,654	46,454	73,185
			Others	314	656,827	129,253	41,615	300,202	227,364	239,645	1,555,345	
		Express & Spl. Del. (non-reg'd)	Surface	315	-	-	-	-	1,722	163,442	164,354	
Airmail	316		22,099	6,027	2,870	37,023	24,355	38,745	131,659			
Foreign incoming	Ordinary	Surface	Letters	317	2,591,837	828,856	777,317	4,211,438	4,079,568	3,670,243	16,174,459	
			Postcards	318	214,676	93,215	72,855	328,992	358,668	850,668	1,958,458	
			Printed matters	319	11,617,920	479,603	256,804	500,341	642,306	1,663,335	13,958,819	
			2nd class	320	381,997	147,855	202,969	515,452	1,561,584	1,063,335	3,813,687	
			Small packet	321	129,437	14,637	35,014	51,373	58,835	141,778	431,074	
			Packages	322	75,748	61,992	432,222	87,535	180,810	354,445	1,192,722	
			Airmail	Letters	323	11,367,299	1,715,112	1,472,597	3,838,855	6,033,627	9,349,312	33,854,242
			Postcards	324	372,526	126,260	265,779	560,224	574,287	1,229,893	3,059,934	
			Printed matters	325	5,711,813	1,255,912	93,858	322,614	265,779	559,882	8,119,258	
			Air parcels	326	41,641	19,833	35,014	75,194	149,617	456,964	797,573	
		Surface	Exp. & Spl. Del.	327	41,641	-	-	2,870	10,651	362,194	424,156	
	Others		328	-	-	-	78,925	561,685	29,274	614,457	1,263,551	
		Airmail	Exp. & Spl. Del.	329	85,239	-	29,326	42,763	92,761	119,244	367,073	
	Others		330	729,267	130,872	157,276	424,769	578,879	1,047,550	3,070,613		
		Express & Spl. Del. (non-reg'd)	Surface	331	-	-	4,365	-	13,459	743,209	760,603	
Airmail	332		599,830	6,027	14,637	21,812	48,369	260,022	992,437			
Foreign total				333	74,644,168	7,811,568	7,355,070	29,534,248	23,384,778	39,243,332	173,064,025	
Grand total				334	221,621,460	23,947,101	25,295,547	49,886,912	49,695,512	47,680,679	457,577,562	

TABLE 2. APPROXIMATE VOLUME OF MAIL HANDLED FOR ONE DAY
(Survey day – A Thursday of November, 1978)

Type of Service				Daily Mail Volume (Pieces)	Post Office Classification							
					A-1	A-2	B	C	D	E	Total	
Domestic mail	Ordinary	Surface	1st class	101	251,207	31,517	36,721	59,836	55,584	92,492	525,267	
			2nd class	102	145,469	7,600	4,754	14,452	9,511	2,554	172,141	
			Books	103	3,476	169	20	183	70	164	4,013	
			Parcels	104	242	37	61	156	51	207	834	
			Others	105	642	629	843	1,215	1,110	1,823	6,160	
		Airmail (non-reg'd)	106	47,927	1,551	1,810	10,023	11,475	39,792	125,652		
		Express & Spl. Del. (non-reg'd)	Surface	107	32,628	1,459	2,931	3,114	8,738	81,656	60,924	
	Airmail		108	1,694	1,565	791	1,354	1,168	4,728	11,649		
		Speed airmail	109	3,619	811	713	654	14	-	5,811		
		Registered	Surface	Non-Exp. 1st class	110	18,379	2,304	6,420	7,294	9,508	11,693	55,798
	Non-Spl. Parcels			111	451	51	65	133	741	282	1,233	
	Others			112	3,718	32	95	694	323	943	5,810	
			Exp. & Spl. Del.	113	1,980	109	282	202	520	919	4,612	
			Airmail	114	6,422	1,569	738	2,745	1,188	1,719	12,723	
			Exp. & Spl. Del.	115	275	160	69	136	176	44	850	
Domestic total				116	512,115	56,211	62,378	102,272	93,687	166,641	991,248	
Money order	Issued (free)			201								
	Paid (free)			202								
Foreign outgoing	Ordinary	Surface	Letters	301	9,432	9,743	305	5,852	5,629	21,691	44,663	
			Postcards	302	121	64	50	179	363	544	1,721	
			Printed matters	303	5,448	164	123	528	429	2,358	8,230	
			2nd class	304	8,800	13	4	169	433	-	9,119	
			Small packet	305	33	5	22	36	79	168	283	
			Airmail	Letters	306	275	29	84	169	54	-	611
		Letters		307	83,661	7,368	10,664	18,665	19,645	28,939	168,542	
		Cards		308	25,592	289	236	2,663	1,143	2,656	32,658	
		Printed matters		309	3,168	109	58	443	472	835	5,699	
		Parcels		310	627	59	63	229	163	323	1,411	
		Registered	Surface	Exp. & Spl. Del.	311	11	75	45	-	43	377	576
	Others			312	4,675	-	65	1,645	8,245	859	7,925	
		Airmail	Exp. & Spl. Del.	Exp. & Spl. Del.	313	-	19	32	-	42	162	255
	Others			314	2,321	419	145	1,645	792	835	5,558	
		Express & Spl. Del. (non-reg'd)	Surface	315	-	-	-	-	6	566	572	
Airmail	316		77	21	10	129	85	135	457			
Foreign incoming	Ordinary	Surface	Letters	317	9,031	2,858	7,691	14,674	14,264	12,783	56,357	
			Postcards	318	148	325	254	1,145	1,387	2,564	6,073	
			Printed matters	319	38,390	1,649	492	1,743	7,258	3,765	48,637	
			2nd class	320	1,331	515	707	1,756	5,232	3,765	13,286	
			Small packet	321	451	51	122	179	265	434	1,502	
			Airmail	Parcels	322	264	216	1,506	205	630	1,235	4,156
		Letters		323	39,677	5,976	5,125	13,585	20,011	32,576	112,969	
		Postcards		324	1,254	442	717	1,952	2,001	4,254	10,682	
		Printed matters		325	19,839	4,376	334	1,072	717	2,656	28,534	
		Air parcel		326	103	69	173	262	591	1,592	2,729	
		Registered	Surface	Exp. & Spl. Del.	327	143	-	-	10	63	1,262	1,478
	Others			328	-	-	275	1,955	162	2,141	4,473	
		Airmail	Exp. & Spl. Del.	Exp. & Spl. Del.	329	297	-	58	149	323	412	1,279
	Others			330	2,541	456	543	1,437	2,817	3,650	16,699	
		Express & Spl. Del. (non-reg'd)	Surface	331	-	-	15	-	47	2,607	2,669	
Airmail	332		2,690	71	51	76	307	906	3,451			
Foreign total				333	260,684	17,324	25,654	71,554	81,434	136,736	692,296	
Grand total				334	772,200	83,545	87,972	173,826	175,121	303,417	1,516,144	

TABLE 3. RATIO OF THE VOLUME OF MAIL
(FROM TABLE 1 DATA)

Type of Service		Classification			Post Office Classification							
					A-1	A-2	B	C	D	E	Grand Total	
Domestic mail	Ordinary	Surface	1st class	101	32.53	32.23	41.24	34.42	32.10	29.83	32.95	
			2nd class	102	18.32	8.38	5.43	8.31	0.87	0.98	10.89	
			Books	103	0.45	0.19	0.02	0.10	0.04	0.03	0.25	
			Packets	104	0.03	0.04	0.02	0.11	0.05	0.07	0.05	
			Others	105	0.66	0.75	0.95	0.70	0.64	0.60	0.33	
		Airmail (no-speed)		106	6.24	9.56	8.92	5.71	6.63	13.92	7.84	
		Express & Spl. Del. (no-reg'd)	Surface	107	4.23	1.29	3.33	1.79	5.08	3.64	3.77	
	Airmail		108	0.22	2.35	0.90	0.78	0.64	1.56	0.23		
		Speed airmail		109	0.00	0.37	0.81	0.38	0.61	-	0.37	
		Registered	Surface	Non-Exp. 1st class	110	2.45	2.76	2.30	4.20	5.49	3.85	3.50
	Non-Spl. Packet			111	0.06	0.06	0.07	0.10	0.12	0.09	0.08	
	Others			112	0.43	0.64	0.11	0.40	0.19	0.31	0.36	
			Exp. & Spl. Del.	113	0.27	0.13	0.32	0.12	0.30	0.30	0.25	
			Airmail	Non-Exp. & Spl. Del.	114	0.57	2.35	0.84	1.58	0.68	0.57	0.87
			Exp. & Spl. Del.	115	0.03	0.19	0.10	0.08	0.10	0.21	0.06	
Domestic total				116	66.32	67.29	70.33	53.84	52.94	54.93	62.19	
Money order		Issued (Item)			201							
		Paid (Item)			202							
Foreign outgoing	Ordinary	Surface	Letters	301	1.23	2.69	0.35	3.34	3.25	7.15	2.83	
			Postcards	302	0.02	0.08	0.16	0.10	0.21	0.31	0.14	
			Printed matters	303	0.67	0.12	0.14	0.30	0.25	0.79	0.55	
			2nd class	304	1.14	0.02	-	0.10	0.18	-	0.57	
			Small packet	305	-	0.01	0.03	0.02	0.05	0.04	0.02	
			Airmail	Letters	306	0.03	0.04	0.10	0.10	0.03	-	0.04
		Letters		307	10.76	8.82	12.35	10.74	11.34	9.54	13.57	
		Postcards		308	3.36	0.34	0.27	1.53	0.66	0.71	2.64	
		Printed matters		309	0.41	0.13	0.07	0.26	0.22	0.27	0.32	
		Packets		310	0.03	0.07	0.09	0.13	0.09	0.11	0.09	
		Registered	Surface	Exp. & Spl. Del.	311	-	0.09	0.07	-	0.03	0.12	0.04
	Others		312	0.69	-	0.04	0.60	0.72	0.29	0.50		
		Airmail	Exp. & Spl. Del.	313	-	0.02	0.04	-	0.02	0.05	0.01	
			Others	314	0.30	0.50	0.16	0.60	0.25	0.27	0.35	
		Express & Spl. Del. (no-reg'd)	Surface	315	-	-	-	-	-	0.19	0.04	
Airmail	316		0.01	0.02	0.01	0.07	0.05	0.04	0.03			
Foreign incoming	Ordinary	Surface	Letters	317	1.17	3.45	3.66	8.44	8.25	4.22	3.53	
			Postcards	318	0.10	0.39	0.29	0.66	0.61	0.58	0.43	
			Printed matters	319	4.97	2.00	1.81	1.60	1.29	1.22	3.65	
			2nd class	320	0.17	0.02	0.03	1.03	3.02	1.22	0.83	
			Small packet	321	0.06	0.06	0.14	0.10	0.12	0.16	0.09	
			Airmail	Packets	322	0.03	0.26	1.71	0.18	0.36	0.41	0.26
		Letters		323	5.14	7.15	5.83	7.02	12.14	10.74	7.43	
		Postcards		324	0.17	0.53	0.81	1.12	1.15	1.43	0.67	
		Printing matters		325	2.58	5.24	0.38	0.65	0.41	0.49	1.79	
		All packets		326	0.02	0.65	0.14	0.15	0.34	0.52	0.17	
		Registered	Surface	Exp. & Spl. Del.	327	0.02	-	-	0.01	0.04	0.42	0.09
	Others		328	-	-	0.31	1.12	0.06	0.71	0.28		
		Airmail	Exp. & Spl. Del.	329	0.04	-	0.11	0.69	0.19	0.14	0.08	
			Others	330	0.33	0.55	0.62	0.86	1.15	1.20	0.67	
		Express & Spl. Del. (no-reg'd)	Surface	331	-	-	0.02	-	0.53	0.25	0.17	
Airmail	332		0.27	0.02	0.16	0.04	0.18	0.30	0.22			
Foreign total				333	33.68	32.71	29.11	41.16	47.06	45.07	37.81	
Grand total				334	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

Table 4 SURVEY ON MAIL VOLUME – CENTRAL POST OFFICE – NOVEMBER 15, 1978

Type of Service		Classification			Posted		Delivered		
					One Day Volume	Percentage	One Day Volume	Percentage	
Domestic mail	Ordinary	Surface	1st class		101	101,520	49.22	65,366	27.96
			2nd class		102	60,073	23.80	2,277	0.97
			Books		103	1,518	0.60	63,282	27.07
			Parcels		104	14	0.01	–	–
			Others		105	–	–	326	0.14
		Airmail (non-speed)		106	13,775	5.46	42,096	18.01	
	Express & Spl. Del. (non-reg'd)	Surface			107	9,569	3.79	3,864	1.65
		Airmail			108	352	0.14	–	–
	Speed airmail				109	850	0.34	875	0.37
	Registered	Surface	Non-Exp.	1st class	110	5,489	2.18	7,450	3.20
			Non-Spl.	Parcels	111	139	0.05	–	–
				Others	112	1,663	0.66	9	–
			Exp. & Spl. Del.	113	746	0.29	300	0.13	
		Airmail	Non-Exp. & Spl. Del.		114	1,429	0.57	1,432	0.61
			Exp. & Spl. Del.	115	87	0.03	–	–	
Domestic total					116	197,224	78.14	187,307	80.11
Money order		Issued (item)			201	(681)	–	–	–
		Paid (item)			202	(205)	–	–	–
Foreign outgoing	Ordinary	Surface	Letters		301	1,441	0.57	–	–
			Postcards		302	11	–	–	–
			Printed matters		303	2,263	0.90	–	–
			2nd class		304	3,993	1.59	–	–
			Small packet		305	15	0.01	–	–
		Parcels		306	59	0.02	–	–	
		Airmail	Letters		307	33,001	13.07	–	–
			Cards		308	11,606	4.60	–	–
			Printed matters		309	1,407	0.56	–	–
			Parcels		310	235	0.09	–	–
	Registered	Surface	Exp. & Spl. Del.		311	3	–	–	–
			Others		312	142	0.06	–	–
		Airmail	Exp. & Spl. Del.		313	–	–	–	–
			Others		314	974	0.38	–	–
	Express & Spl. Del. (non-reg'd)	Surface			315	–	–	–	–
Airmail				316	28	0.01	–	–	
Foreign incoming	Ordinary	Surface	Letters		317	–	–	–	–
			Postcards		318	–	–	–	–
			Printed matters		319	–	–	16,755	7.17
			2nd class		320	–	–	–	–
			Small packet		321	–	–	203	0.08
		Parcels		322	–	–	95	0.04	
		Airmail	Letters		323	–	–	16,234	6.95
			Postcards		324	–	–	3,560	1.52
			Printed matters		325	–	–	8,864	3.79
			Air parcels		326	–	–	52	0.02
	Registered	Surface	Exp. & Spl. Del.		327	–	–	–	–
			Others		328	–	–	–	–
		Airmail	Exp. & Spl. Del.		329	–	–	49	0.02
			Others		330	–	–	–	–
	Express & Spl. Del. (non-reg'd)	Surface			331	–	–	–	–
Airmail				332	–	–	679	0.29	
Foreign total					333	55,178	21.86	46,491	19.89
Grand total					334	252,402	100.00	233,798	100.00

**TABLE 5. APPROXIMATE VOLUME OF MAIL OF ADC,
FSMDC & DSMDC FOR ONE DAY**
(Number of mail items handled)

Type of Service				Classification		ADC (Air Mail Dist. Center)		FSMDC (Foreign Surface Mail Dist. Ctr.)		DSMDC (Domestic Surface Mail Dist. Ctr.)	
						One Day* Volume (pieces)	Percentage	One Day* Volume (pieces)	Percentage	One Day* Volume (pieces)	Percentage
Domestic mail	Ordinary	Surface	1st class	101	-	-	-	-	112,920	53.68	
			2nd class	192	-	-	-	-	41,747	11.76	
			Books	103	-	-	-	-	73	0.02	
			Packets	154	-	-	-	-	414	0.13	
			Others	105	-	-	-	-	26,249	7.45	
		Airmail (no-speed)		106	72,266	35.26			1,710	0.48	
		Express & Spl. Del. (no-reg'd)	Surface	107	-	-	-	-	30,160	8.50	
	Airmail		108	1,453	0.72	-	-	31	-		
		Speed airmail		109	1,325	0.65	-	-	-	-	
		Registered	Surface	Non-Exp. 1st class	110	-	-	-	-	31,397	8.84
	Non-Spl. Parcels			111	-	-	-	-	8,654	2.45	
	Others			112	-	-	-	-	419	0.12	
	Exp. & Spl. Del.			113	-	-	-	-	8,472	2.43	
	Airmail		Non-Exp. & Spl. Del.	114	5,341	2.63	-	-	347	0.10	
			Exp. & Spl. Del.	115	233	0.11	-	-	-	-	
	Domestic total		116	82,637	39.35	-	-	315,533	88.63		
Money order	Issued (Gen)		201	-	-	-	-	-	-		
	Paid (Gen)		202	-	-	-	-	-	-		
Foreign outgoing	Ordinary	Surface	Letters	301	-	-	4,643	10.55	-	-	
			Postcards	302	-	-	90	0.26	-	-	
			Printed matters	303	-	-	2,258	7.61	2,503	0.71	
			2nd class	304	-	-	2,450	7.03	139	0.21	
			Small packet	305	-	-	45	0.13	19	0.01	
			Packets	306	-	-	655	1.88	19	0.01	
			Airmail	Letters	307	50,934	24.86	-	-	15,930	4.77
		Cards		308	-	-	-	-	-	-	
		Printed matters		309	678	0.33	162	0.45	-	-	
		Packets		310	472	0.23	259	0.85	-	-	
		Registered	Surface	Exp. & Spl. Del.	311	-	-	-	5	0.00	
	Others		312	-	-	-	-	-	-		
		Airmail	Exp. & Spl. Del.	313	30	0.01	-	-	-		
			Others	314	3,179	2.55	-	-	-		
		Express & Spl. Del. (no-reg'd)	Surface	315	-	-	-	-	-		
		Airmail	316	22	0.01	-	-	769	0.22		
Foreign incoming	Ordinary	Surface	Letters	317	-	-	1,077	3.50	-	-	
			Post cards	318	-	-	451	1.37	-	-	
			Printed matters	319	-	-	852	2.61	6,750	2.45	
			2nd class	320	-	-	9,926	29.53	4,200	1.32	
			Small packet	321	-	-	29	0.08	29	0.01	
			Packets	322	-	-	6,437	18.41	46	0.01	
			Airmail	Letters	323	54,174	26.13	-	-	309	0.28
		Postcards		324	3,518	1.72	-	-	-	-	
		Printed matters		325	6,926	2.91	-	-	-	-	
		Air parcels		326	750	0.37	100	0.29	-	-	
		Registered	Surface	Exp. & Spl. Del.	327	-	-	509	1.45	-	
	Others		328	-	-	-	-	4,657	1.31		
		Airmail	Exp. & Spl. Del.	329	-	-	-	5	-		
			Others	330	3,377	1.65	-	-	-		
		Express & Spl. Del. (no-reg'd)	Surface	331	-	-	-	-	-		
		Airmail	332	503	0.25	-	-	-			
	Foreign total		333	124,254	60.65	35,457	100.00	39,453	11.12		
	Grand total		334	204,901	100.00	35,457	100.00	354,986	100.00		

Note: * Same Date ADC - November 17, 1978
FSMDC - November 16, 1978
DSMDC - November 16, 1978

5. UNIT COST AT CPO, DSMD, FSMDC & ADC

CPO-SPO-8

Classification					Calculation of Unit Costs by Type of Service (Central Post Office)			
					Mail Volume (One Year) (1) pieces	Total Cost (2) P	Unit Cost (2÷1) (3) P	
Type of Service								
Domestic mail	Ordinary	Surface	1st class	101	36,461,664	1,195,645.95	0.03	
			2nd class	102	20,626,560	214,858.61	0.01	
			Books	103	7,765,056	380,926.94	0.05	
			Parcels	104	4,032	30.19	0.01	
			Others	105	807,840	29,809.86	0.04	
		Airmail (non-speed)		106	8,221,536	428,935.46	0.05	
	Express Spl. Del. (non reg'd)	Surface		107	2,783,520	632,492.19	0.23	
		Airmail		108	101,376	1,240.45	0.01	
	Speed airmail			109	752,756	165,209.13	0.22	
	Registered	Surface	Non-Exp. Non-Spl.	1st class	110	3,988,512	437,289.51	0.11
				Parcels	111	40,032	5,104.86	0.13
			Others	112	2,052,288	142,519.23	0.07	
			Exp. & Spl. Del.		113	423,360	90,889.25	0.21
			Airmail		114	428,544	113,700.79	0.27
		Exp. & Spl. Del.		115	25,056	3,190.25	0.13	
Domestic total				116	84,481,632	3,841,542.67	0.05	
Money order	Issued (item)			201	255,168	129,691.16	0.51	
	Paid (item)			202				
Foreign outgoing	Ordinary	Surface	Letters	301	415,008	3,639.54	0.01	
			Postcards	302	3,168	30.19	0.01	
			Printed matters	303	651,744	6,114.88	0.01	
			2nd class	304	1,149,984	9,672.55	0.01	
			Small packet	305	4,320	30.19	0.01	
			Parcels	306	32,256	56,554.49	1.75	
			Airmail	Letters	307	9,504,288	88,956.45	0.01
		Cards		308	3,342,528	32,061.01	0.01	
		Printed matters		309	405,216	3,473.55	0.01	
		Parcels		310	69,984	15,896.73	0.23	
	Registered	Surface	Exp. & Spl. Del.		311	864	125.94	0.15
			Others		312	40,896	5,211.74	0.13
		Airmail	Exp. & Spl. Del.		313	-	-	-
			Others		314	280,512	35,719.58	0.13
	Express Spl. Del. (non reg'd)	Surface		315	-	-	-	
		Airmail		316	8,064	60.35	0.01	
	Foreign incoming	Ordinary	Surface	Letters	317	432,000	2,506.57	0.01
				Postcards	318	8,640	38.65	0.01
Printed matters				319	2,417,472	110,314.97	0.05	
2nd class				320	-	-	-	
Small packet			321	232,128	6,776.39	0.03		
Parcels			322	27,360	16,781.54	0.61		
Airmail			Letters	323	5,059,008	406,187.55	0.08	
			Postcards	324	1,531,296	87,224.27	0.06	
		Printed matter	325	2,884,608	94,829.73	0.03		
		Air parcels	326	14,976	9,188.33	0.61		
Registered		Surface	Exp. & Spl. Del.		327	14,112	8,082.63	0.57
			Others		328	305,280	20,314.30	0.07
		Airmail	Exp. & Spl. Del.		329	5,472	1,168.58	0.21
			Others		330	836,064	52,301.25	0.06
Express & Spl. Del. (non reg'd)	Surface		331	-	-	-		
	Airmail		332	44,352	24,727.61	0.56		
Foreign total				333	29,721,600	1,227,650.73	0.04	
Grand total				334	114,458,400	5,069,223.40	0.04	

(Pieces)

Type of Service		Classification				Approximate Volume of Mails Handled at Central Post Office			
						One Day Mail Volume Survey Date - Nov. 15, 1978	One Year Mail Volume - 1978 -		
Domestic mail	Ordinary	Surface	1st class		101	126,603	36,461,664		
			2nd class		102	71,620	20,626,560		
			Books		103	26,962	7,765,056		
			Parcels		104	14	4,032		
			Others		105	2,805	807,840		
			Airmail (non-speed)		106	28,547	8,221,536		
	Express & Spl. Del. (non-reg'd)	Surface	Surface		107	9,665	2,783,520		
			Airmail		108	352	101,376		
	Speed airmail				109	2,612	752,256		
	Registered	Surface	Non-Exp.	1st class		110	13,849	3,958,512	
				Parcels		111	139	40,032	
				Others		112	7,126	2,052,288	
		Airmail	Exp. & Spl. Del.		113	1,470	423,360		
			Non-Exp. & Spl. Del.		114	1,488	428,544		
			Exp. & Spl. Del.		115	87	25,056		
Domestic total				116	293,339	84,481,632			
Money order	Issued (item)			201	886	255,168			
	Paid (item)			202					
Foreign outgoing	Ordinary	Surface	Letters		301	1,441	415,008		
			Postcards		302	11	3,168		
			Printed matters		303	2,263	651,744		
			2nd class		304	3,993	1,149,984		
			Small packet		305	15	4,320		
			Parcels		306	112	32,256		
		Airmail	Letters		307	33,001	9,504,288		
			Cards		308	11,666	3,342,528		
			Printed matters		309	1,407	405,216		
			Parcels		310	243	69,984		
			Registered	Surface	Exp. & Spl. Del.		311	3	864
					Others		312	142	40,896
	Express & Spl. Del. (non-reg'd)	Airmail	Exp. & Spl. Del.		313	-	-		
			Others		314	974	280,512		
			Surface		315	-	-		
		Surface	Airmail		316	28	8,064		
			Letters		317	1,500	432,000		
			Postcards		318	30	8,640		
Foreign incoming	Ordinary	Surface	Printed matters		319	8,394	2,417,472		
			2nd class		320	-	-		
			Small packet		321	806	232,128		
			Parcels		322	95	27,360		
			Airmail	Letters		323	17,566	5,059,008	
				Postcards		324	5,317	1,531,296	
		Printed matters		325	10,016	2,884,608			
		Air parcels		326	52	14,976			
		Registered		Surface	Exp. & Spl. Del.		327	49	14,322
					Others		328	1,060	305,280
		Express & Spl. Del. (non-reg'd)	Airmail	Exp. & Spl. Del.		329	19	5,472	
				Others		330	2,903	836,064	
	Surface			331	-	-			
	Surface		Airmail		332	154	44,352		
			Letters		333	103,200	29,721,600		
			Parcels		334	397,425	114,458,400		
	Grand total				334	397,425	114,458,400		

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Type of Service		Classification				Calculation of Unit Costs by Type of Service (Domestic Surface Mail Distribution Center)		
						Mail Volume (One Year) (1) pieces	Total Cost (2) P	Unit Cost (2)÷(1) (3) P
Domestic mail	Ordinary	Surface	1st class	101	80,505,504	1,314,531.86	0.02	
			2nd class	102	14,966,496	198,675.67	0.01	
			Books	103	57,600	1,085.51	0.02	
			Parcels	104	133,344	81,496.93	0.61	
			Others	105	10,461,600	124,300.03	0.01	
		Airmail (non-speed)	106	391,680	15,745.61	0.04		
	Express & Spl. Del. (non-reg'd)	Surface	Surface	107	13,824,576	81,714.58	0.01	
			Airmail	108	3,168	22.13	0.01	
	Speed airmail			109	-	-	-	
	Registered	Surface	Non-Exp. Non-Spl.	1st class	110	6,355,584	964,795.70	0.15
				Parcels	111	321,408	38,239.94	0.12
			Others	112	87,840	17,327.22	0.20	
		Airmail	Exp. & Spl. Del.	113	-	-	-	
			Non-Exp & Spl. Del.	114	-	-	-	
	Exp. & Spl. Del.			115	-	-	-	
Domestic total			116	127,108,800	2,837,935.18	0.02		
Money order	Issued (item)		201	-	-	-		
	Paid (item)		202	-	-	-		
Foreign outgoing	Ordinary	Surface	Letters	301	3,537,792	71,843.55	0.02	
			Postcards	302	-	-	-	
			Printed matter	303	720,000	12,387.84	0.02	
			2nd class	304	315,072	4,765.18	0.02	
			Small packet	305	11,520	129.16	0.01	
		Airmail	Parcels	306	5,472	4,355.93	0.80	
			Letters	307	703,008	5,447.15	0.01	
			Cards	308	5,760	24.53	0.01	
			Printed matters	309	77,184	1,542.79	0.02	
			Parcels	310	2,592	4,798.03	1.85	
	Registered	Surface	Exp. & Spl. Del.	311	-	-	-	
			Others	312	3,456	12.27	0.01	
		Airmail	Exp. & Spl. Del.	313	-	-	-	
			Others	314	4,608	24.53	0.01	
	Express & Spl. Del. (non-reg'd)	Surface	315	-	-	-		
Airmail		316	1,440	22.13	0.01			
Foreign incoming	Ordinary	Surface	Letters	317	-	-	-	
			Postcards	318	-	-	-	
			Printed matters	319	2,529,504	34,220.26	0.01	
			2nd class	320	1,353,600	17,951.52	0.01	
		Airmail	Small packet	321	5,760	92.32	0.02	
			Parcels	322	13,248	69.63	0.01	
			Letter	323	-	-	-	
			Postcards	324	-	-	-	
	Registered	Surface	Printed matters	325	-	-	-	
			Air parcels	326	-	-	-	
		Airmail	Exp. & Spl. Del.	327	-	-	-	
			Others	328	-	-	-	
	Express & Spl. Del. (non-reg'd)	Surface	Exp. & Spl. Del.	329	-	-	-	
			Others	330	-	-	-	
		Airmail	331	-	-	-		
Foreign total			333	9,290,016	157,686.82	0.02		
Grand total			334	136,398,816	2,995,622.00	0.02		

(Pieces)

Type of Service					Approximate Volume of Mails Handled at Domestic Surface Mail Distribution Center		
					One Day Mail Volume Survey Date - Nov. 16, 1978	One Year Mail Volume - 1978 -	
Domestic Mail	Ordinary	Surface	1st class	101	279,533	80,505,504	
			2nd class	102	54,967	14,966,496	
			Books	103	200	57,600	
			Parcels	104	463	133,344	
			Others	105	36,325	10,461,600	
		Airmail (non-speed)		106	1,360	391,680	
	Express & Spl. Del. (non-reg'd)	Surface		107	48,002	13,824,516	
			Airmail	108	11	3,168	
		Speed airmail		109	--	--	
	Registered	Surface	Non-Exp.	1st class	110	22,068	6,355,584
			Non-Spl.	Parcels	111	1,116	321,408
				Others(COD)	112	305	87,840
		Airmail	Exp. & Spl. Del.	113	--	--	
			Non-Exp. & Spl. Del.	114	--	--	
		Exp. & Spl. Del.		115	--	--	
Domestic total				116	441,350	127,108,600	
Money order	Issued (item)			201	--	--	
	Paid (item)			202	--	--	
Foreign outgoing	Ordinary	Surface	Letters	301	12,284	3,537,792	
			Postcards	302	--	--	
			Printed matters	303	2,500	720,000	
			2nd class	304	1,091	315,072	
			Small packet	305	40	11,520	
			Parcels	306	19	5,472	
		Airmail	Letters	307	2,441	703,008	
			Cards	308	20	5,760	
			Printed matters	309	268	77,184	
			Parcels	310	9	2,592	
	Registered	Surface	Exp. & Spl. Del	311	--	--	
			Others	312	12	3,456	
		Airmail	Exp. & Spl. Del	313	--	--	
		Others		314	16	4,608	
	Express & Spl. Del. (non-reg'd)	Surface		315	--	--	
Airmail			316	5	1,440		
Foreign incoming	Ordinary	Surface	Letters	317	--	--	
			Postcards	318	--	--	
			Printed matters	319	8,783	2,529,504	
			2nd class	320	4,700	1,353,600	
		Small packet	321	20	5,760		
		Parcels	322	46	13,248		
		Airmail	Letters	323	--	--	
			Postcards	324	--	--	
	Printed matters		325	--	--		
	Air parcels		326	--	--		
	Registered	Surface	Exp. & Spl. Del	327	--	--	
			Others	328	--	--	
		Airmail	Exp. & Spl. Del.	329	--	--	
	Others		330	--	--		
Express & Spl. Del. (non-reg'd)	Surface		331	--	--		
		Airmail	332	--	--		
Foreign total				333	32,257	9,290,016	
Grand total				334	473,607	136,398,616	

FSMDC-SPO-8

Classification					Calculation of Unit Costs by Type of Service (Foreign Surface Mail Distribution Center)			
					Mail Volume (One Year) (1) Pieces	Total Cost (2) P	Unit Cost (2÷1) (3) P	
Type of Service								
Domestic mail	Ordinary	Surface	1st class		101			
			2nd class		102			
			Books		103			
			Parcels		104			
			Others		105			
	Airmail (non-speed)			106				
	Express & Spl. Del. (non-reg'd)	Surface			107			
		Airmail			108			
	Speed airmail				109			
	Registered	Surface	Non-Exp.	1st class	110			
			Non-Spl.	Parcels	111			
				Others	112			
			Exp. & Spl. Del.			113		
		Airmail	Non-Exp. & Spl. Del.		114			
		Exp. & Spl. Del.			115			
Domestic total					116			
Money order	Issued (item)				201			
	Paid (item)				202			
Foreign outgoing	Ordinary	Surface	Letters		301	1,608,640	30,398.56	0.02
			Postcards		302	25,920	422.64	0.02
			Printed matters		303	2,382,336	40,040.96	0.02
			2nd class		304	708,480	11,912.10	0.02
			Small packet		305	12,560	207.48	0.02
			Parcels		306	188,040	139,318.22	0.74
		Airmail	Letters		307			
			Cards		308			
			Printed matters		309			
			Parcels		310			
	Registered	Surface	Exp. & Spl. Del.		311			
			Others LC/AO		312	132,768	26,866.86	0.20
		Airmail	Exp. & Spl. Del.		313			
			Others		314			
	Express & Spl. Del. (non-reg'd)	Surface			315			
Airmail				316				
Foreign incoming	Ordinary	Surface	Letters		317	771,264	13,270.33	0.02
			Postcards		318	138,240	2,332.32	0.02
			Printed matters		319	586,368	156,068.50	0.27
			2nd class		320	2,873,058	48,290.20	0.02
			Small packet		321	8,352	125.23	0.01
			Parcels		322	1,160,352	372,437.96	0.32
		Airmail	Letters		323			
			Postcards		324			
			Printed matters		325			
			Air parcels		326			
	Registered	Surface	Exp. & Spl. Del.		327			
			Others LC/AO		328	175,392	38,692.52	0.22
		Airmail	Exp. & Spl. Del.		329			
		Others		330				
	Express & Spl. Del. (non-reg'd)	Surface			331			
Airmail				332				
Foreign total					333	10,972,800	880,379.88	0.08
Grand total					334	10,972,800	880,379.88	0.08

(Pieces)

Type of Service		Classification			Approximate Volume of Mails Handled at Foreign Surface Mail Distribution Center		
					One Day Mail Volume Survey Date - Nov. 16, 1978	One Year Mail Volume - 1978 -	
Domestic mail	Ordinary	Surface	1st class	101			
			2nd class	102			
			Books	103			
			Parcels	104			
			Others	105			
		Airmail (non-speed)	106				
	Express & Spl. Del. (non-reg'd)	Surface	107				
		Airmail	108				
	Speed airmail		109				
	Registered	Surface	Non-Exp. Non-Spl.	1st class	110		
				Parcels	111		
				Others	112		
		Airmail	Exp. & Spl. Del.	113			
			Non-Exp. & Spl. Del.	114			
	Exp. & Spl. Del.		115				
Domestic total				116			
Money order	Issued (item)			201			
	Paid (item)			202			
Foreign outgoing	Ordinary	Surface	Letters	301	6,280	1,808,640	
			Postcards	302	90	25,920	
			Printed matters	303	8,272	2,382,336	
			2nd class	304	2,460	708,480	
			Small packet	305	45	12,960	
			Parcels	306	655	188,640	
		Airmail	Letters	307			
			Cards	308			
			Printed matters	309			
			Parcels	310			
	Registered	Surface	Exp. & Spl. Del.	311			
			Others LC/AO	312	461	132,768	
		Airmail	Exp. & Spl. Del.	313			
			Others	314			
	Express & Spl. Del. (non-reg'd)	Surface	315				
		Airmail	316				
Foreign incoming	Ordinary	Surface	Letters	317	2,678	771,264	
			Postcards	318	460	138,240	
			Printed matters	319	2,036	586,368	
			2nd class	320	9,976	2,873,088	
			Small packet	321	29	8,352	
			Parcels	322	4,029	1,160,352	
		Airmail	Letters	323			
			Postcards	324			
	Registered	Surface	Printed matters	325			
			Air parcels	326			
			Exp. & Spl. Del.	327			
		Airmail	Others LC/AO	328	609	175,392	
			Exp. & Spl. Del.	329			
			Others	330			
Express & Spl. Del. (non-reg'd)	Surface	331					
	Airmail	332					
Foreign total				333	38,100	10,972,800	
Grand total				334	38,100	10,972,800	

Classification					Calculation of Unit Costs by Type of Service (Airmail Distribution Center)			
					Mail Volume (One Year) (1) Pieces	Total Cost (2) P	Unit Cost (2÷1) (3) P	
Type of Service								
Domestic mail	Ordinary	Surface	1st class	101				
			2nd class	102				
			Books	103				
			Parcels	104				
			Others	105				
		Airmail (non-speed)			106	21,287,808	145,831.50	0.01
	Express & Spl. Del. (non-reg'd)	Surface		107				
		Airmail		108	423,072	4,650.23	0.01	
	Speed airmail			109	528,192	367,653.98	0.70	
	Registered	Surface	Non-Exp. Non-Spl.	1st class	110			
				Parcels	111			
			Others	112				
				Exp. & Spl. Del.	113			
		Airmail	Non-Exp. & Spl. Del.	114	1,539,072	289,683.41	0.19	
		Exp. & Spl. Del.	115	67,104	10,026.65			
Domestic total			116	23,845,248	817,845.77	0.03		
Money order	Issued (item)			201				
	Paid (item)			202				
Foreign outgoing	Ordinary	Surface	Letters	301				
			Postcards	302				
			Printed matters	303				
			2nd class	304				
			Small packet	305	6,336	2,609.34	0.41	
			Parcels	306	145,728	59,517.34	0.41	
			Airmail	Letters	307	35,876,736	330,604.11	0.01
				Cards	308	1,533,024	17,339.89	0.01
				Printed matters	309	1,033,920	10,743.39	0.01
				Others	310	961,056	11,459.20	0.01
	Registered	Airmail	Exp. & Spl. Del.	311	8,640	373.28	0.04	
			Letters	312	653,760	76,984.74	0.12	
			Printed matters	313	57,600	1,659.47	0.03	
			Others	314	201,600	6,593.42	0.03	
	Express & Spl. Del. (non-reg'd)	Surface		315				
Airmail			316	45,792	526.25	0.01		
Foreign incoming	Ordinary	Surface	Letters	317				
			Postcards	318				
			Printed matters	319				
			2nd class	320				
			Small packet	321	126,720	92,858.76	0.73	
			Others	322	315,360	5,672.58	0.02	
			Airmail	Letters	323	22,828,608	427,152.04	0.02
				Postcards	324	1,631,520	25,955.57	0.02
	Printed matter	325		2,159,136	38,236.57	0.02		
	Air parcels	326		216,000	115,808.85	0.54		
	Registered	Airmail	Exp. & Spl. Del.	327	14,688	1,613.27	0.11	
			Letters	328	1,817,568	265,975.94	0.15	
			Printed matters	329	167,040	30,750.92	0.18	
			Others	330	71,136	12,346.40	0.17	
Express & Spl. Del. (non-reg'd)	Surface		331					
	Airmail		332					
Foreign total			333	69,871,968	1,534,811.38	0.02		
Grand total			334	93,717,216	2,352,657.15	0.03		

(Pieces)

Type of Service					Approximate Volume of Mails Handled at Airmail Distribution Center		
					One Day Mail Volume Survey Data - Nov. 17, 1978	One Year Mail Volume - 1978 -	
Domestic mail	Ordinary	Surface	1st class	101			
			2nd class	102			
			Books	103			
			Parcels	104			
			Others	105			
		Airmail (non-speed)		106	73,916	21,287,808	
	Express & Spl. Del. (non-reg'd)	Surface	107				
			Airmail	108	1,469	423,072	
	Speed airmail		109	1,834	528,192		
	Registered	Surface	Non-Exp.	1st class	110		
				Parcels	111		
			Non-Spl.	112			
				Others	113		
		Airmail	Non-Exp. & Spl. Del.	114	5,344	1,539,072	
			Exp. & Spl. Del.	115	233	67,104	
Domestic total				116	82,796	23,845,248	
Money order	Issued (item)			201			
	Paid (item)			202			
Foreign outgoing	Ordinary	Surface	Letters	301			
			Postcards	302			
			Printed matters	303			
			2nd class	304			
			Airmail	Small packet	305	22	6,336
			Parcels	306	506	145,728	
			Letters	307	124,572	35,876,736	
			Cards	308	5,323	1,533,024	
			Printed matters	309	3,590	1,033,920	
			Others	310	3,337	961,056	
	Registered	Airmail	Exp. & Spl. Del.	311	30	8,640	
			Letters	312	2,270	653,760	
			Printed matters	313	200	57,600	
			Others	314	700	201,600	
	Express & Spl. Del. (non-reg'd)	Surface	315				
			Airmail	316	159	45,792	
	Foreign incoming	Ordinary	Surface	Letters	317		
Postcards				318			
Printed matters				319			
2nd class				320			
Small packet				321	440	126,720	
Others				322	1,095	315,360	
Airmail				Letters	323	79,266	22,828,603
		Postcards	324	5,665	1,631,520		
		Printed matters	325	7,497	2,159,136		
		Air parcels	326	750	216,000		
Registered		Airmail	Exp. & Spl. Del.	327	51	14,688	
			Letters	328	6,311	1,817,568	
			Printed matters	329	580	167,040	
			Others	330	247	71,136	
Express & Spl. Del. (non-reg'd)	Surface	331					
		Airmail	332				
Foreign total				333	242,611	69,871,968	
Grand total				334	352,407	93,717,216	

III. APPLICATION OF STATISTICAL THEORY IN THE DOMAIN OF COST SURVEYS

I. Method for Determination of the Number of Cost Survey Offices

(1) It is ideal to conduct cost surveys at all post offices in order to attain accuracy of the survey results. However, to carry out cost surveys at all post offices numbering some 1,840 is not advisable from the viewpoint of reduced reliability of data through increased survey error, and from economic viewpoints such as work load, expenses, examinations of survey data obtained etc. Consequently, it is desirable to adopt a sampling survey method on the basis of statistical theory.

(2) In cost accounting, estimated values are used. For the estimation of total value of the necessary data, firstly expenses, work load, traffic such as mail volume at the cost survey offices are collected. These data are then classified to 6 groups of offices, i.e. A-1, A-2, B, C, D, and E, and summed up by each group. These summed up results are multiplied for extrapolation by the ratio between the number of cost survey offices of a specific group and the number of post offices of the group (population) concerned.

In this estimation, in order to obtain estimated values in respect of variable such as work load, mail volume etc., with a certain level of accuracy, it would be best to design a sampling plan by each item shown in the survey tables. However, this method is neither economical nor practicable.

Therefore, paying attention to the fact that expenses, work loads and traffic, mail volume, etc., are all closely related to the number of staff, the common indicator may reasonably be represented by the number of staff at each post office.

Accordingly, in the following explanation, the number of staff is thus employed as a common indicator.

(3) Procedure for the calculation method to decide number of sampled offices

a. Calculation for the distribution of staff strength at each post office

(a) Preparation of staff strength tables for each class of post office

For each of the classes A-1, A-2, B, C, D and E, a staff strength table is prepared as follows:

Class	Post Office	No. of Employees
B	Green hills	x
	Markina	x ₂
	Ermita	x ₃
	Sta Cruz	x ₄
		⋮

(b) Calculation for the distribution

Calculation of distribution of staff strength by post office is conducted for each class. Taking B as an example, the distribution can be expressed as the following equation:

$$\sigma_B^2 = \frac{1}{N_B} \cdot \Sigma (x - E(x))^2 = \frac{1}{N_B} \left\{ \Sigma x^2 - \frac{(\Sigma x)^2}{N_B} \right\}$$

given that:

N_B = number of post offices for B class

$E(x)$ = expected value for an average staff strength (x) for a post office

Σx = Total staff strength of B class

Σx^2 = Sum total of x squared

$$\left[\begin{array}{l} \text{Example: When } x = \{ 1, 2, 3 \} \\ \\ \Sigma x = 1 + 2 + 3 = 6 \\ (\Sigma x)^2 = (6)^2 = 36 \\ \Sigma x^2 = 1^2 + 2^2 + 3^2 = 14 \end{array} \right]$$

b. Calculation of required number of samples

(a) Preparation of a calculation table by class

Large scale offices belonging to A-1 (11 offices) and A-2 (16 offices) are all designated as cost survey offices. For other sampled offices to be designated as cost survey offices the number may be obtained through the calculation of distribution, shown in item a. above, in respect of B, C, D, and E.

Using the results of this calculation, the following calculation table by class will be prepared.

Table 1. Calculation Table by Class (except A-1 and A-2)

Class	Number of Offices (Ni)	Composition ratio (Wi)	oi	Wi oi	Staff Strength (xi)
B	39	0.022	---	---	---
C	83	0.046	---	---	---
D	260	0.143	---	---	---
E	1,431	0.789	---	---	---
Total	$\sum Ni = N = 1,813$	1.000	—	$\sum Wi oi$	$\sum xi$

(b) Employment of the formula for the determination of number of sampled offices

a) Using the calculated values entered in Table 1 (excluding the values for A-1 and A-2), the number of necessary sampled offices (n) for cost survey may be obtained through the following formula according to the method of Neyman's optimum distribution, with a permissible error $d (= \epsilon \cdot \bar{x})$ to secure reliable accuracy.

$$n_0 = \frac{t^2 (\sum Wi oi)^2}{(\epsilon \bar{x})^2}$$

$$n = \frac{n_0}{1 + \frac{n_0}{N}}$$

Further, number of sampled offices n can be distributed between the classes B, C, D and E, using the following formula:

$$ni = n \times \frac{Wi oi}{\sum Wi oi}$$

The permissible error d does not include A-1 and A-2, and therefore is not for the sum total of the post offices.

Consequently, it is necessary to conduct a calculation through the following method shown in item b) below, when an accurate calculation is made for the whole range of A-1, A-2, B, C, D and E.

- b) Calculation method for permissible error ϵ' for the whole range including classes A-1 and A-2

$$i. \quad \sigma = \frac{1}{N} \sqrt{\sum N_i^2 \cdot \frac{N_i - n_i}{N_i - 1} \cdot \frac{\sigma_i^2}{n_i}}$$

when:

$$N = 1,840$$

(N includes whole range including A-1 and A-2)

$$\sum N_i^2 \cdot \frac{N_i - n_i}{N_i - 1} \cdot \frac{\sigma_i^2}{n_i} \quad \text{signifies the sum total of}$$

$$N_i^2 \cdot \frac{N_i - n_i}{N_i - 1} \cdot \frac{\sigma_i^2}{n_i} \quad \text{calculated for each class of B, C, D and E.}$$

The calculation results are transposed into the following equation:

$$\epsilon' = \frac{t \sigma}{\bar{x}}$$

$$t = 1.96 \text{ when reliability is 95\%.}$$

given that: \bar{x} is average number of staff $\left(\frac{\sum_{i=1}^N x_i}{N} \right)$

for a post office calculated over the whole range post offices (N) including the classes A-1 and A-2.

- ii. As all the 27 offices belonging to A-1 and A-2 are included in the calculation, the relation between ϵ' and ϵ becomes $\epsilon' < \epsilon$.

Accordingly, number of sampled offices n ($= \sum n_i$) calculated with the permissible error rate ϵ can be decreased, varying the number of sampled offices "ni" by means of trial and error, using the above formula until ϵ' becomes equal to ϵ (i.e., $\epsilon' = \epsilon$).

- c) It is desirable that the number of cost survey offices be a little more than that obtained through the calculation mentioned above. However, from the viewpoint of implementation, it will be realistic to begin with a certain number

which will make it possible, at least, to give guidance sufficiently to the cost survey offices concerned rather than the number obtained through the calculation.

(4) Selecting method for cost survey offices

The following method may be considered for the selection of cost survey offices:

- a. In order that the selected survey offices function effectively as master samples, it is necessary to take care that survey offices be expressive of the population from various points of view.
For this purpose, the population of the post offices may be classified paying attention to such aspects as geographical features (inhabitants, economic strength etc.), scale of post office (staff strength etc.), function of office (distribution etc.), etc. If a selection of cost survey offices is made so that these characteristics of the population can be represented, these sampled offices can be effectively put to use for a specific cost survey analysis etc.
- b. When a list of sampled offices is prepared in respect of (4), a. mentioned above, the necessary number of post offices is selected simply by means of random sampling, systematic sampling method, etc.
- c. However, when there are practical difficulties in designating survey offices, from the viewpoint of survey ability and giving guidances, the following measures can be taken:
 - (a) A method in which a little more than the number of survey offices needed according to the formula is selected, and in the course of subsequent tabulation, survey offices where results are not of good in quality are eliminated.
 - (b) A method in which offices able to provide reliable survey results are selected deliberately, although this method deviates from the sampling concept. In this method, there will be a possibility that the results of the survey may be biased if the selection of survey offices is not made so that the sampled offices become expressive of the population.
 - (c) A method in which if certain sampled offices chosen at random prove inappropriate for some reason, these offices are replaced by other offices of the same class.

(5) Method for re-selection of cost survey offices

- a. The following three methods are available in deciding cost survey offices in cases where annual cost accounting is carried out:
- 1) A method in which cost surveys are carried out at the same offices every year.
(Completely continuous sampling)
 - 2) A method in which cost surveys are carried out at survey offices completely different from offices previously used.
(Completely independent sampling)
 - 3) A method in which some of the survey offices are replaced by newly sampled offices, and at the rest, surveys are continued.
(Rotated sampling)
- b. In the cost accounting at the post offices, it will be necessary to make possible a comparison between the cost accounting results of the current year and those of previous years, and an analysis of the differences.
- For this purpose, if survey post offices are fixed for a long time, the survey office itself will become skillful in the surveys and the survey results will increase in quality, together with the additional merit of avoiding errors associated with the change of survey offices. However, on the contrary, there is the problem that during a long period, sampled offices may gradually lose their representative characteristics of the population.
- To avoid this shortcoming, it will be possible to employ methods in which all the sampled offices are replaced by newly sampled offices after a few years (once in 5 to 7 years), or in which a fixed percentage of survey offices is replaced by newly sampled offices every year (Rotation method).
- In order that the cost surveys be firmly rooted at the introduction of the cost accounting system, it will be better to fix cost survey offices for a certain period. After the cost survey has been started along the right lines, it will be appropriate to employ the rotation method from the viewpoints of expenses, giving guidance, preparation, survey results etc.

2. Calculation for the Number of Sampled Items in the Survey for Number of Stamps Affixed

This survey is to ascertain the average number of stamps affixed on mail items. This is an example for an application of sampling theory to the question of how many mail items must be surveyed to obtain a statistically accurate result.

(1) Formula for the determination of the number of samples

Number of samples (n_0) can be obtained through the following formula:

$$n_0 \geq \frac{t^2 \sigma^2}{d^2} = \frac{t^2 c^2}{\epsilon^2}$$

$$c = \frac{\sigma}{\bar{x}}$$

$$\sigma^2 = \frac{1}{n-1} \left[\sum x^2 - \frac{(\sum x)^2}{n} \right]$$

provided:

- t = a coefficient indicating reliability
In the sampling survey, 95% is used for reliability in general and t becomes 1.96 under this condition.
- σ = Standard deviation for number of stamps affixed (x) on each mail items
- d = Permissible error (pieces)
- ϵ = $\frac{d}{\bar{x}}$ = Permissible error rate (%)
- $\sum x$ = Total number of stamps affixed on mail items surveyed.
- \bar{x} = $\frac{\sum x}{n}$ = Average number of stamps affixed.

(2) Advance information provided by preliminary surveys

Carrying out a small scale preliminary survey for the principal category of mail service, and the results thus obtained, are tabulated as shown in Table 2 below.

Table 2. Preliminary Survey Results for 1st Class Mail Items

Order of mail items surveyed	Number of stamps affixed (x)	Square of number of stamps affixed (x ²)
1	1	1 ² = 1
2	1	1 ² = 1
3	2	2 ² = 4
4	1	1 ² = 1
5	3	3 ² = 9
⋮	⋮	⋮
i	2	2 ² = 4
⋮	⋮	⋮
n	1	1 ² = 1
Total n = 60	Σx = 100	Σx² = 189

(3) Calculation for number of samples

Number of samples is calculated by applying the preliminary survey results to the following formula:

Example of calculation using data for 1st class:

$$\begin{aligned}
 \text{a. } \sigma^2 &= \frac{1}{n-1} \left[\Sigma x^2 - \frac{(\Sigma x)^2}{n} \right] \\
 &= \frac{1}{60-1} \left[189 - \frac{(100)^2}{60} \right] = \frac{1}{59} (189 - 166.67) \\
 &= \frac{1}{59} \times 22.33 = 0.38
 \end{aligned}$$

$$\therefore \sigma = \sqrt{\sigma^2} = 0.62$$

$$\text{b. } \bar{x} = \frac{\Sigma x}{n} = \frac{100}{60} = 1.67$$

$$\text{c. } n_0 \geq \frac{t^2 e^2}{e^2} = \frac{t^2 \left(\frac{\sigma}{X}\right)^2}{e^2}$$

Under the condition of reliability 95% ($t = 1.96$) error rate 5% ($\epsilon = 0.05$)

$$n_0 \geq \frac{1.96^2 \times \left(\frac{0.62}{1.67}\right)^2}{0.05^2} = \frac{3.8416 \times 0.1378}{0.0025} = 211.7$$

- d. Accordingly, for the 1st class mail service, conducting surveys on 212 mail items with regard to the number of stamps affixed, a result sufficiently reliable statistically can be obtained.

(4) Summing up of survey results

Calculations mentioned in item (3) above are conducted for primary categories of mail service, and results summed up are shown in Table 3 below:

Table 3

Type of Service	Number of Samples Needed
1st class	212
2nd class	415
Express	641
Registered	507
Parcel	797

Note: Figures shown in Table 3 are hypothetical.

(5) Conclusion

According to the figures shown in Table 3 of (4) mentioned above, conducting surveys on items to the extent of 300 to 800 items depending on category of mail service, it is possible to expect fairly reliable survey results. In our trial survey, these figures are bigger than required by the theory mentioned above. It will be better to carry out surveys at several post offices, not limited to one office.

Appendix

RECORDS OF DAILY ACTIVITIES DURING THE STUDY

- Sep. 25 Mon. Arrival in Manila (JL 741), Arrangement of schedule
- 26 Tue. Courtesy call on the Postmaster General (Lunch given by the Postmaster General), Visit to Japanese Embassy and JICA office in Manila
- 27 Wed. Consultation on the study plan for cost accounting with local counterparts (Typhoons and power failures)
- 28 Thu. Explanation of how a cost accounting is carried out
Lecture on the organization of the Bureau of Posts, Philippines
- 29 Fri. Continued explanation of how a cost accounting is carried out
- 30 Sat.
- Oct. 1 Sun.
- 2 Mon. Lecture on the mail operation of Airmail Distributing Center (ADC) and on the work measurement system to be introduced in the Bureau of Posts
- 3 Tue. Lecture on the budgeting and accounting system in the Bureau of Posts
Organization of working groups in the study team composed of 10 counterparts and appointment of leaders
- 4 Wed. Lecture on the mail operations of Domestic Surface Mail Distribution Center (DSMDC) and Foreign Surface Mail Distribution Center (FSMDC)
- 5 Thu. Observations at the DSMDC, the FSMDC and Makati Commercial Center Post Office (a large scale post office)
- 6 Fri. Visit to the Cardona Post Office (a small scale post office), Visit to San Francisco del Monte post office (a middle scale post office) was cancelled owing to a breakdown of transport.
- 7 Sat.

- Oct. 8 Sun.
- 9 Mon. Reading of the text of cost accounting and discussion on the cost accounting concept (Typhoons)
- 10 Tue. ----- Continued -----
- 11 Wed. ----- Continued -----
- 12 Thu. ----- Continued -----
- 13 Fri. ----- Continued ----- (Special gathering with group members)
- 14 Sat.
- 15 Sun.
- 16 Mon. Explanation of the method and concept of designing the cost accounting in the postal service
- 17 Tue. Explanation of how to design a cost accounting for specialized post offices like the DSMDC, the FSMDC, and the ADC and the Manila Central post office
- 18 Wed. ----- Continued -----
- 19 Thu. Determination of the cost items and the type of mail service for cost accounting purposes and appraisal of the assets of the postal service
- 20 Fri. General review of how to design a cost accounting in the postal service
- 21 Sat.
- 22 Sun.
- 23 Mon. Preparation of cost accounting forms according to drafted program
- 24 Tue. ----- Continued -----
- 25 Wed. ----- Continued -----

- Oct. 26 Thu. [(All government or public offices and private firms were closed owing to
27 Wed. [typhoon Kading (Signal No. 3.)]
Review and examination of the study program and preparation of materials
- 28 Sat.
- 29 Sun.
- 30 Mon. Detailed designing of the cost accounting system in the Bureau of Posts
(Visit to JICA office)
- 31 Tue. ----- National Holiday -----
- Nov. 1 Wed. Detailed designing of the cost accounting system in the Bureau of Posts
and examination of cost accounting forms prepared
- 2 Thu. Detailed explanation and discussion on the designed system
- 3 Fri. ----- Continued -----
- 4 Sat.
- 5 Sun.
- 6 Mon. Sampling of post offices (approximately 300 post offices throughout
the country)
- 7 Tue. [Preparation of survey sheets (mail volume, working hours, expenses,
8 Wed. [premises etc.) for the mail inquiry and examination of the methods to be
9 Thr. [employed for the surveys at the specialized offices such as DSMDC,
FSMDC, ADC and Manila Central Post Office assisted by experienced
officers of these 4 specialized offices]
- 10 Fri. Printing of circulars, survey manuals, survey sheets and dispatching them
to approximately 300 post offices throughout the country
Ceremony and party for the 80th Anniversary of the Bureau of Posts,
Philippines
- 11 Sat.

- Nov. 12 Sun.
- 13 Mon. Preparation of the surveys at specialized offices and holding a meeting of managing staffs for guidance on the mail volume survey at Manila Central Post Office
- 14 Tue. ----- Do ----- at the DSMDC and the FSMDC
- 15 Wed. Execution of the mail volume survey at Manila Central Post Office
- 16 Thu. ----- Do ----- at the DSMDC and the FSMDC
Visit to the ADC for explanation of the mail volume survey
- 17 Fri. Execution of mail volume survey at the ADC
- 18 Sat.
- 19 Sun.
- 20 Mon. Preparation and distribution of expense survey sheets for the 4 specialized
21 Tue. offices in Metro Manila (DSMDC, FSMDC, ADC and Manila Central P.O.)
- 22 Wed. Visiting to Regional Office 3 and to Angeles Post Office (inquiry into data reporting system etc. and carrying out surveys for unit revenue, unit weight/capacity and number of stamps affixed) ---- Stayed in Dagupan City
- 23 Thu. Visit to Dagupan City Post Office (Region I) (experimental accompanied survey for outdoor delivery on motorcycle)
Visit to Alaminos Post Office (Region I) (on the spot inquiry)
---- Stayed in Dagupan City
- 24 Fri. Travel to Baguio (Region I)
Visit to Baguio City Post Office (experimental accompanied survey for outdoor delivery on foot)

Visit to Trinidad Transit Office in Benguet (on-the-spot inquiry)

- Nov. 25 Sat.** Meeting and Discussion with approximately 20 postmasters in Benguet district and a district postal inspector on the purpose and the necessity of cost accounting
Sightseeing
---- Stayed in Baguio City
- 26 Sun.** Back to Manila
- 27 Mon.** Assignment of work to each of members
Examination and tabulation of results of various surveys
- 28 Tue.** Tabulation of survey results and examinations of various points of questions
- 29 Wed.** ----- Continued -----
- 30 Thu.** National holiday
- Dec. 1 Fri.** Tabulation of survey results
- 2 Sat.**
- 3 Sun.**
- 4 Mon.** Ascertainment of work progress of the members and examination of problems arising
Lecture on the sampling theory by Professor Celestina N. Punzalan of Philippine School of Business Administration (PSBA)
- 5 Tue.** Tabulation of survey results
Lecture on the sampling theory by Professor Celestina N. Punzalan of PSBA
- 6 Wed.** Tabulation of survey results
- 7 Thu.** ----- Continued -----
- 8 Fri.** ----- Continued -----
- 9 Sat.**

- Dec. 10 Sun.
- 11 Mon. Examination of survey results
Preparation of report
- 12 Tue. Visit to Regional Office 4-a, Regional Distribution Center and San Pablo Post Office.
- 13 Wed. Examination of survey results
Preparation of report
- 14 Thu. ----- Continued -----
- 15 Fri. ----- Continued -----
- 16 Sat. Visit to Regional Office 7 and Cebu Post Office
- 17 Sun. Sightseeing in Cebu ---- Back to Manila
- 18 Mon. Printing and arrangement of report materials
- 19 Tue. ----- Continued -----
- 20 Wed. Reporting on study results to the Postmaster General and other executive officials of the Bureau of Posts (Lunch with the Postmaster General and other executives)
- 21 Thu. Courtesy Call on the Postmaster General and Assistant Postmaster General (Lunch given by the Postmaster General)
- 22 Fri. Visit to JICA Office and Japanese Embassy.
Meeting for reviewing of the study performed with the counterpart members
- 23 Sat. Preparation for leaving
- 24 Sun. Leaving Manila by JL 742 (14:45)



