

PRC Glossary of Postal Terms

The Postal Regulatory Commission (PRC) glossary is a list of economic, statistical, and technical terms frequently used in this website. This glossary draws on a number of sources for its substance such as: Commission opinions, material filed in Commission proceedings, pertinent statutory authority, published sources and public documents.

The glossary definitions are not "official" or "authoritative" interpretations of the Commission. Each definition represents at least one interpretation of the meaning of the term.

Comments and suggestions for further improvement are welcomed; contact the Rates and Classification Specialist (James Callow at james.callow@prc.gov).

PRC Glossary of Terms Used In Postal Ratemaking (M-P)

MACHINABLE – A mailpiece meeting certain minimum and maximum physical dimensions and other characteristics that allows it to be processed on automated or mechanized mail processing equipment. The term is most frequently used in connection with parcels.

MAIL CHARACTERISTIC – A feature or attribute that serves to distinguish one piece or class of mail from another. An example would be shape, i.e., letter-shaped, flat-shaped or parcel.

MAILSTREAM – The total amount of mail in mail processing operations at any one time within a postal facility, or the Postal Service as a whole. Also, a mailing industry term that describes the printing, assembly, or sortation of mailpieces in a highly automated production plant.

MANAGEMENT OPERATING DATA SYSTEM (MODS) – MODS is a data system used by postal management for planning and managing mail processing operations. Data are recorded by a three-digit operational code at each facility. Each code represents a particular mail processing or other operation at the facility. The data are used to plan and control activities within large postal mail processing facilities. MODS data are also used to estimate the attributable costs of mail processing by subclass.

MARGINAL COST – The marginal cost of a particular product is the extra or additional cost caused by the production of one more unit of that product, *ceteris paribus*. In the postal context, however, a one-unit change may be viewed as too small to reveal any change in the costs of a particular mail processing or other operation. More practically then, it is equal to the change in total cost divided by the change in output for small changes in output. Consequently, a 10 percent

change in output is maybe considered small which, for postal operations, could be a rather large number of mailpieces.

MARGINAL PRICE – The marginal price for a particular product is the price per unit for the sale of one more unit.

MARKUP – In postal ratemaking, an amount or percentage of revenue greater than attributable costs. For example: If the revenue of a mail subclass is \$120 and the attributable cost is \$100, the markup amount is \$20 and the markup percent is $20/100 = 20$ percent. Note that the markup percent is equal to the cost coverage percent less 100 percent. Sometimes a “unit markup” is computed. If the markup amount is \$20 and the volume is 200, the unit markup is $\$20/200 = 10$ cents per piece. See **COST COVERAGE**

MARKUP INDEX – When the average markup for all subclasses changes, the Commission often uses a markup index to compare markup percentages over time. Suppose in one postal rate proceeding the average markup percentage for all subclasses is 50 percent. Thus, if a particular subclass has a markup of 40 percent, its markup index is $40/50 = 0.8$. If in the next rate proceeding the average markup on all subclasses is 60 percent and the subclass in question has a 40 percent markup again, its markup index is $40/60 = 0.67$. In the second case, we would say that the subclass in question has a lower markup relative to all other subclasses combined than it did in the first rate proceeding, i.e., a lower markup index. See **MARKUP**

MEAN – The mean (or arithmetic mean) of a set of n numbers is defined as their sum divided by n . The mean is one of several measures of central tendency. Other measures are the median and mode.

MEDIAN – The median is the middle value of the data when arranged in ascending or descending order.

MIGRATION – The movement of mail volume from one mail category or subclass to another.

MODE – The mode is the value of the data that occurs with the greatest frequency.

MULTI-POSITION FLAT SORTING MACHINE (MPFSMs) – A machine that mechanically sorts flats into one of 100 sortation bins based upon address and ZIP Code information entered by up to three operators at computer consoles.

MULTI-POSITION LETTER SORTING MACHINES (MPLSMs) – A large machine for the mechanized sortation of letter-shaped mail into one of 277 bins based on address and ZIP Code information entered by operators at consoles. MPLSMs are no longer in use by the Postal Service.

NEGOTIATED SERVICE AGREEMENT (NSA) – A contract between the Postal Service and an individual mailer that provides customer-specific rates and fees in exchange for specific commitments by the mailer, such as entering additional quantities of First-Class Mail, or updating mailing address lists more often than required to increase the number of mailpieces delivered.

NIXIE – A mailpiece that cannot be delivered because of an incorrect, illegible, or insufficient delivery address. Source: Glossary of Postal Terms, USPS Publication 32, May 1997.

NONMACHINABLE – A mailpiece that cannot be sorted on automated or mechanized mail processing equipment because of size, shape, weight, content, addressing or other characteristics. A letter-size mailpiece is “nonmachinable” if it features one or more of nine characteristics, including: for pieces more than 4.25 inches high or 6.0 inches long, a thickness of less than 0.009 inch; an aspect ratio (length divided by height) of less than 1.3 or more than 2.5; contents such as pens, pencils, or loose keys or coins that cause the thickness of the mailpiece to be uneven; and, a delivery address parallel to the shorter dimension of the mailpiece. A parcel post piece is “nonmachinable” if it features one or more of 10 characteristics. Examples include a parcel that consists of a can, roll, or tube, or wooden or metal box; contains more than 24 ounces of liquid in glass containers, or 1 gallon or more of liquid in metal or plastic containers; consists of books, printed matter, or business forms weighing more than 25 pounds; and, has characteristics that could result in damage to the mailpiece, other parcels, or processing equipment, such as inadequate packaging.

NONMACHINABLE SURCHARGE – A surcharge applicable to certain mailpieces that cannot be sorted on automated or mechanized mail processing equipment because of size, shape, weight, content, addressing or other characteristics. For First-Class Mail and Standard Mail, the Postal Service identifies nine size, shape, content and addressing characteristics that determine whether a letter-size mailpiece is “nonmachinable.” In First-Class Mail, a surcharge is assessed on nonmachinable letter-size pieces weighing less than one ounce and, in the case of Standard Mail, 3.3 ounces or less entered at Presorted letter rates. The surcharge is also assessed where manual processing is requested by the mailer. For Parcel Post, the Postal Service identifies 10 size, shape, weight, content, and packing characteristics that determine whether a parcel is “nonmachinable.” The amount of the nonmachinable surcharge varies according to the class or type of mail. See *also* NONMACHINABLE

OBSERVATION – Each element or unit of a population is called an observation. The terms data point and observation are sometimes used interchangeably.

OPPORTUNITY COST – The cost of foregoing the opportunity to produce alternative goods and services. Since resources are scarce relative to the virtually unlimited wants that such resources can be used to satisfy, choices among alternatives must be made. Consequently, the opportunity cost of any resource in producing some good or service is its value or worth in its best alternative use. In more concrete terms, if a capital investment is being considered that would yield a risk-adjusted return of 5 percent and the best alternative use for the investment funds is a zero-risk financial asset earning 6 percent, the opportunity cost would be 6 percent. The return on the capital investment, including the opportunity cost, would be -1 percent, and the investment would not be made.

OPTICAL CHARACTER READER (OCR) – An automated mail sorting machine that locates the delivery address on the face of the mailpiece, reads and interprets the city, state and ZIP Code information, prints a barcode, and sorts the mailpiece into 60 stackers (bins).

ORDINARY LEAST SQUARES (OLS) – In regression analysis, the name ordinary least squares is given to a method for obtaining the “best-fitting” equation of a line through a scatter of points. The line of best fit is defined as the one for which the total of the variances (i.e., vertical distances) between each point and the line is minimized. This line is the one for which the sum of the squares (or the absolute values) of these variances is as small as possible.

OUTGOING MAIL – Mail sorted within a mail processing facility that is dispatched to another facility for additional processing or delivery. Source: Glossary of Postal Terms, USPS Publication 32, May 1997.

OVERSIZED RATE – A rate applicable to any Parcel Post piece, regardless of weight, that measures more than 108 inches but not more than 130 inches in combined length and girth.

OWN-PRICE ELASTICITY OF DEMAND – The phrase *own-price* elasticity of demand is used for purposes of clarity to refer to the price elasticity of demand for a product to changes in the price of *that same product*, in contrast to the price of a related product, as in substitutes and complements. In general, the term “elasticity,” when used without modification, refers to the own-price elasticity. Similarly, the phrases *elasticity of demand*, *demand elasticity*, or the *elasticity of quantity demanded*, also refer to own-price elasticity. See PRICE ELASTICITY OF DEMAND

PAEA – The Postal Accountability and Enhancement Act of 2006, Public Law 109-435. This Act greatly amended the Postal Reorganization Act of 1970 (PRA) and was the most sweeping change to postal law since 1976. The Act changed the methods by which the US Postal Service sets its rates and fees and

increased the regulatory authority and renamed the Postal Rate Commission to the Postal Regulatory Commission.

PANEL DATA – Panel data consists of cross-sectional observations on a set of variables of interest “i” for items under analysis over a set of time periods “t”. Panel data have both a time series and cross sectional aspect, consisting of repeated observations on the same set of cross sectional units. Continuing the example from the definition of cross-sectional data above, the GDP, consumption, investment, and government expenditures data for each country would be provided for a number of years, e.g., Years 1, 2, 3, 4, etc.

PARK AND LOOP – A delivery route where the carrier parks the postal vehicle and walks to deliver a quantity of mail. The carrier delivers the mail by walking away from and then returning (or “looping” back) to the vehicle, generally along one or more streets.

PASSTHROUGH – In the process of designing rates, discounts from a “benchmark” rate are based upon costs avoided by the Postal Service from mailer “worksharing.” The term “pass through” refers to the ratio, expressed in percentage terms, between the discount and the associated avoided costs calculated on a per unit basis. Where the discount equals the unit costs avoided, 100 percent of the avoided costs are passed-through to mailers in discounted rates. Sometimes, however, only a portion of the costs avoided are passed-through to mailers. For example, if mailer worksharing results in postal cost savings of \$0.04 per piece and the discount is set at \$0.03, the pass through is 75 percent ($\$0.03 / \0.04).

PEAK LOAD DEMAND – Peak load demand occurs when demand is relatively high as large numbers of customers attempt to obtain service simultaneously and it is not feasible to preclude or limit access. Electric power companies typically experience peak loads during summer months when demand for electricity, essential to operate air conditioners, is greatest. In the postal context, peak loads occur in mail processing during certain days of the week, weekly within months, and seasonally.

PEAK LOAD COSTS – Peak load costs occur when peak load demand for a service exists. Because inputs are insufficiently flexible to match demand precisely, firms must invest in additional facilities and equipment to meet high levels of demand as they occur. The costs of maintaining such additional capacity are known as peak load costs.

PEAK LOAD PRICING – A policy of setting prices whereby users of services during periods of peak load demand pay higher prices. Peak load pricing is used by the electric power and telecommunications industries to reflect the additional costs of facilities and equipment needed to meet peak load demand, and to induce some consumption to shift from periods of peak load demand to periods

of lower demand. Historically, peak load pricing has not been applied in the postal context.

PLANT LOAD – Postal Service provided transportation for bulk mail from a mailer's printing or production plant to a downstream postal mail processing facility, thereby bypassing entry at the local post office serving the plant.

POPULATION – A population is the complete set (actual or hypothetical) of all observations (e.g., people, objects, transactions, events, etc.) pertaining to a single characteristic or variable of interest.

POSTAL FISCAL YEAR – Prior to Fiscal Year (FY) 2004, the postal fiscal year consisted of 13 accounting periods—a total of 364 days. At the end of each postal fiscal year, an adjustment was made to reconcile the postal fiscal year with the 365-day federal government fiscal year. The Postal Service now uses the federal government fiscal year, which begins October 1 and ends September 30, to report performance.

POSTAL QUARTER – Prior to FY 2004, a postal quarter consisted of three designated accounting periods, except for the fourth quarter of the postal fiscal year, which consisted of four accounting periods. Effective for FY 2004, reporting of Postal Service performance by postal quarter was replaced by reporting on a calendar quarter basis.

POSTAL SERVICE STATISTICAL INFORMATION SYSTEMS – To estimate revenues, volumes, and costs for each mail class, subclass and special service, the Postal Service relies on four primary statistical information systems. Estimates from these systems are provided in rate filings, or periodically reported to the Postal Rate Commission.

CARRIER COST SYSTEM (CCS) – The CCS collects data on mail volumes on city carrier and rural carrier delivery routes. The estimates of volume are used to allocate attributable city and rural carrier costs by category of mail and shape (i.e., letters, flats, and parcels);

IN-OFFICE COST SYSTEM (IOCS) – The IOCS collects data on the proportion of employee work time spent performing various functions on different classes of mail. These proportions of time are used to estimate the costs of the classes of mail. An example might be the time spent by city carriers in a delivery post office casing (i.e., sorting) mail. Thus, if mail sorting tallies reveal 48 percent of carriers' time (in the aggregate) is spent sorting First-Class Mail, 48 percent of casing costs could be attributed to First-Class;

ORIGIN-DESTINATION INFORMATION SYSTEM; REVENUE, PIECES & WEIGHT SYSTEM (ODIS-RPW) – Effective for FY 2004 and thereafter,

two formerly separate statistical data systems—the Origin-Destination Information System (ODIS) and the Revenue, Pieces & Weight System (RPW)—were merged. The combined system, referred to as ODIS-RPW, collects all the information previously collected by the RPW, and most of the information previously collected by ODIS. ODIS collects data from the cancellation postmark on sample mailpieces to estimate the elapsed time-in-transit from entry at the “originating” mail processing facility to exit, i.e., receipt at the delivery unit, for various mail categories. This data is sometimes used to measure the level of achievement of subclass service standards (e.g., 95 % overnight delivery within certain ZIP codes). ODIS also provides flow patterns (origin-destination) for various classes of mail (e.g., First-Class Mail volumes from New York to Chicago). The RPW collects data to develop estimates of revenue, piece volume and weight for each class of mail and special service. A summary of estimates from ODIS-RPW are published by the Postal Service in the Quarterly Statistics Report.

TRANSPORTATION COST SYSTEM (TRACS) – TRACS collects data necessary to allocate attributable transportation costs to the various categories of mail. For example, TRACS samples mail by type of transportation to develop estimates of cubic foot miles—the volume of mail, measured in cubic feet, and the distance traveled—which is used to allocate highway, freight rail, and air transportation costs.

POUND-MILES – Pounds of mail multiplied by the miles traveled.

PRA – The Postal Reorganization Act of 1970 (Public Law 91-375). The Act abolished the United States Post Office Department, a part of the cabinet, and created the United States Postal Service, a corporation-like independent agency with an official monopoly on the delivery of mail in the United States. It also established, as an independent rate-setting body, the Postal Rate Commission, the predecessor of the Postal Regulatory Commission.

PREFERENTIAL MAIL – Mail that receives preferential handling. This includes Express Mail, international airmail, First-Class Mail, Priority Mail, Periodicals, and special [] handling. Source: Glossary of Postal Terms, USPS Publication 32, May 1997.

PREFERRED-RATE MAIL – Congress has considered certain categories of mail to be of special benefit to society. Historically, those categories of mail, collectively referred to as “preferred-rate” mail, have received special rate treatment. They are: Periodicals (formerly second-class) within-county, nonprofit, classroom, and science of agriculture (advertising portion); Standard Mail (formerly third-class) nonprofit; Package Services (formerly fourth-class) library rate; and, free mail for the blind and mail issued pursuant to the Voting Rights act. See also REVENUE FOREGONE APPROPRIATIONS

PRESORT, or PRESORTED/PRESORTING – The grouping or sorting of individual mailpieces in a bulk mailing by ZIP Code or some other separation recommended by the Postal Service in order to bypass certain postal processing operations. Presorting is a common type of mailer worksharing.

PRICE ELASTICITY OF DEMAND – The responsiveness of quantity demanded (the dependent variable) to a change in price of a product (the independent variable). To determine the price elasticity of demand, the question is usually framed as follows: How sensitive is the quantity demanded to changes in price, assuming all other factors that might influence the quantity demanded are unchanged? This assumption is often called the *ceteris paribus* assumption.

More specifically, elasticity is the percentage change in the quantity demanded divided by the percentage change in the price. The percentage change in quantity demanded is the change in quantity divided by the quantity. Using notation, where V represents volume and the delta (Δ) notation indicates change, the percentage change in the quantity demanded can be written as $\Delta V / V$. Similarly, where P represents price, the percentage change in price is $\Delta P / P$. In equation form, elasticity can be expressed as:

$$e = (\Delta V / V) / (\Delta P / P)$$

or alternatively expressed as

$$e = (\Delta V / \Delta P) \times P / V$$

Given that the quantity demanded and the price are inversely related, the elasticity will always be a negative number or zero. An elasticity of 0 represents an extreme situation where a change in price results in no change in the quantity demanded. This relationship is described as perfectly inelastic. An elasticity between -1 and 0 is often referred to as relatively inelastic. An elasticity of -1 is where the price can be increased (or decreased) and the *revenue* will not change. This is referred to as unit elasticity. The situation has special significance in that a small increase (or decrease) in price will cause a small decrease (or increase) in the quantity demanded so that the total revenue received for the product remains the same. An elasticity between $-\infty$ and -1 describes a demand relationship that is relatively elastic. An elasticity of $-\infty$ is called perfectly elastic, and represents the situation where the quantity demanded becomes nonexistent with a small increase in price and becomes infinite with a small price decrease.

Due in part to the monopoly statutes, the price elasticity of demand for single-piece First-Class Mail is relatively inelastic at about -0.2, meaning a price increase causes a small volume decline. Specifically, a 10 percent price increase, all other factors unchanged, will cause a volume decline of about 2

percent. Express Mail, on the other hand, faces strong competition and as a result is relatively elastic. Express Mail is estimated to have an elasticity of approximately -1.50, meaning a 10 percent price increase will result in a 15.0 percent loss in volume. Under these conditions, the revenue received from Express Mail will be lower after the rate increase than before. Of course, the decrease in volume will also decrease the cost of Express Mail. Consequently, revenue net of cost will still be higher after the price increase.

PRIOR YEARS' LOSSES (PYL) – The cumulative losses experienced by the Postal Service since postal reorganization. Since the late 1970's, an allowance has been included in the test year revenue requirement to recover a portion of those prior years' losses. The allowance or amount included in the test year revenue requirement is one-ninth of the prior years' losses. Stated alternatively, the amortization or "recovery" of prior years' losses (RPYL) occurs over nine years.

PRIVATE EXPRESS STATUTES – The Private Express Statutes (PES) are a group of federal civil and criminal laws that, for the most part, make it unlawful for any entity other than the U.S. Postal Service to send or carry letters over post routes for compensation unless appropriate postage is paid in an amount equaling what would have been paid had the letters been sent through the Postal Service. Source: Understanding the Private Express Statutes, USPS Pub. 542.

PROBABILITY DISTRIBUTION – A probability distribution consists of the values of a random variable and the probabilities associated with each value of the random variable. Thus, a probability distribution can be represented by a graph, table or formula that identifies each possible value of a random variable and specifies the probability associated with each value. For example, assume an experiment that seeks to learn the number of heads that appear (e.g., the random variable) when two coins are each tossed numerous times. The possible outcomes of the experiment are Tail Tail (TT), Tail Head (TH), Head Tail (HT), and Head Head (HH). The values the random variable may assume are 0, 1 and 2, representing the number of heads that appear, i.e., no heads, one head, and two heads. The probabilities associated with the values 0, 1, and 2 are $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{1}{4}$, respectively. If these probabilities are "distributed" (i.e., plotted) over the associated values of the random variable on a graph, the result is a "discrete" probability distribution in graphical form.

PROCESSING AND DISTRIBUTION CENTER/FACILITY (P&DC/F) – A central mail facility that processes and dispatches part or all of both incoming mail and outgoing mail for a designated mail service area. [A P&DC/F] also provides instructions on the preparation of collection mail, dispatch schedules, and sorting plan requirements to mailers. The facility is usually a sectional center facility or a general mail facility, but it can also be a dedicated mail processing facility without a post office station, or a post office branch. Source: Glossary of Postal Terms, USPS Publication 32, May 1997.

PRODUCT SPECIFIC COSTS – A type of cost that does not vary with volume but is determined to be attributable because such costs are incurred solely for the benefit of a single class or service. For example, the advertising costs for Express Mail are treated as specific fixed costs.