

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 (E-H)

ECONOMIES OF SCALE (INTERNAL) – Economies of scale in production are said to exist if the average total cost of producing additional goods or services decreases as the scale of production increases. In formal terms, economies of scale occur where the long-run average total cost curve is decreasing.

Economies of scale can arise from a variety of factors, giving larger firms an advantage over smaller competitors. Larger firms have a larger workforce that permits each worker to specialize in the production process, gaining greater proficiency and improved efficiency. In addition, larger firms can invest in specialized equipment designed for larger, more efficient production runs. Larger firms are also able to invest greater sums in research and development to improve production methods, resulting in further reductions in production costs.

ECONOMIES OF SCOPE – Economies of scope arise when the total cost of producing two or more products by one enterprise is less than the total cost of producing each separate product in isolation by specialized firms. In general, the Postal Service is viewed as possessing economies of scope because it is assumed to be able to collectively deliver all the classes of mail more cheaply than a firm that specializes only in the delivery of First-Class Mail, or any other class of mail.

EFFICIENT COMPONENT PRICING RULE (ECPR) – Also known as “retail-minus” pricing, ECPR is a method for pricing access to an intermediate or component service controlled by a regulated (monopoly) firm. The component service is used in the production of a final good or service for the firm’s retail customers. The pricing of access becomes important where unregulated competitors seek to supply the same retail customers but require access to the component service in order to produce the final good or service. In its simplest terms, the rule requires that the price for the component service be set such that the regulated firm receives the same profit from permitting access as it does from the sale of the final good or service. The effect of the rule is to permit unregulated competitors to supply the retail customers only if they are able to do so at a lower cost than the regulated firm.

In the case of the Postal Service, a regulated monopoly, the processing and sorting of mail for delivery is viewed as a component service. Mailers that perform this component service on their mail reduce the component service costs of the Postal Service. In postal ratemaking, the retail-minus pricing rule requires that the price for the component service be set such that the Postal Service receives the same profit from permitting entry of such workshared mail as it does from the entry of non-workshared mail. More specifically, the rule is satisfied where the discount for such workshared mail is set equal to the costs avoided by the Postal Service, resulting in identical pieces of workshared mail and non-workshared mail making the same unit contribution to institutional costs.

ELASTICITY – Elasticity is a measure of the sensitivity of a dependent variable to changes in an independent variable.

ENDOGENOUS VARIABLE – Generally, a variable that is explained by other variables or factors within the causal system under study. In economic or other models, a variable is said to be endogenous if its value is determined or influenced by the value(s) of one or more independent variable(s) within the model. Endogenous variables are also referred to as *dependent* or *criterion* variables.

ERROR – Any data system based upon sampling is subject to two types of “error:” Sampling Error, and Non-sampling Error.

Sampling Error – Error that arises from the fact that there is a sample. Sampling error is measured by the Standard Error (i.e., Standard Deviation), which describes the difference between the estimates obtained from a sample and the true, but unknown population parameters. Increasing the size of the sample, or increasing the size of the confidence interval is often used to control sampling error.

Non-sampling Error – Error in sample estimates that arise from the implementation of a data collection program or sample design. Examples of non-sampling errors include the inadvertent or deliberate misclassification of data by data collection employees, data recording mistakes and incorrectly programmed computers. Non-sampling errors are extremely difficult to detect. And, it is virtually impossible to measure the effect of non-sampling errors on the final estimates. Methods of controlling for non-sampling errors include well thought-out data collection forms, proper and adequate training of data collection personnel, and well-planned data collection procedures.

EXOGENOUS VARIABLE – Generally, a variable that is independent of other variables or factors within the causal system under study. In economic or other models, a variable is considered exogenous if its value is determined outside of the model in which it is used. Exogenous variables are often referred to as *independent* or *predictor* variables.

EXTERNALITIES – In economics, externalities are the indirect or third-party (societal) effects caused by the production and/or consumption of goods and services for which the costs and/or benefits of such effects are not paid for by the producers or consumers. Externalities may be negative or positive. Examples of negative externalities include air, water, and noise pollution. Positive examples include flood control and recreational opportunities created by hydroelectric dams.

FACER-CANCELLER – Mail processing equipment that automatically faces letter-size mail in a uniform orientation and cancels the postage stamp. Source: Glossary of Postal Terms, USPS Publication 32, May 1997. The Postal Service presently uses the Advanced Facer Canceled System (AFCS) to face, cancel, and sort letters to one of four stackers or bins for further mail processing.

FIXED COST – A cost that does not vary with a change in volume. In the postal context, fixed costs are the residual or remaining costs after volume-variable costs are determined, and are oftentimes referred to as institutional costs of the Postal Service. See VARIABLE COST, or VARIABILITY

FIXED EFFECTS MODEL – The fixed effects model uses panel data observations x_{it} and y_{it} , which are adjusted by subtracting the means of the x_{it} and y_{it} for each activity before using the ordinary least squares regression with the data to estimate the relationship between the variables x and y . Its purpose is to account for all unexplained differences between units as a fixed effect over time. The differences between units are accounted for by the value of the intercept and are assumed to be constant over time.

FIXED WEIGHT INDEX – In the context of postal rates, a fixed weight price index represents the weighted average price for a schedule of rates applicable to the mail of a single subclass or class, holding the mix of mail volume constant. Stated alternatively, a fixed weight price index reduces a complex schedule of rates applicable to a subclass (or class) of mail to a single number or index—the weighted average price for an average mailpiece in a subclass. The Consumer Price Index (CPI) published by the U.S. Bureau of Labor Statistics (BLS) is probably the best known example of a fixed weight index. See **CONSUMER PRICE INDEX**

A fixed weight index is used by the Postal Service to measure the change in the average price of mail in a subclass. In a base year, a fixed weight price index is calculated for a subclass as the weighted arithmetic average of the subclass rates, using the volume in each rate category year as weights. For a future test period, a second fixed weight index is calculated for the same subclass using new postal rates, but holding the mix of mail volume constant. The Postal Service uses the resulting fixed weight indices as price variables in postal econometric (demand studies) and volume forecasting models for all subclasses of mail.

FLAT – The general term for flat-size mail, so-called because such mail is sorted without bending so that the mailpiece remains flat. Source: Glossary of Postal Terms, USPS Publication 32, May 1997. Catalogues and magazines are commonly referred to as flats.

FLAT-SIZE MAIL – A mailpiece that exceeds one of the dimensions of a letter-size mailpiece but does not exceed any of the following maximum dimensions for mail processing: 15 inches long, 12 inches high, 0.75 of an inch thick. Stated alternatively, a flat-size mailpiece has at least one dimension with a length of 11.5 inches but not more than 15 inches, a height of 6.125 inches but not more than 12 inches, and a thickness of 0.25 inch but not more than 0.75 inch.

FULLY ALLOCATED COST – In postal ratemaking, the allocation of the total variable and fixed costs of providing a postal product or service. Variable costs include wages of mailhandlers, vehicle fuel costs, and other costs that vary with the volume of service provided. Fixed costs include some administrative services costs, building and facility costs, and material and supply costs that cannot be causally associated with a particular service. The allocation of shared fixed costs to postal products and services is often considered arbitrary because many methods can be devised that yield different allocations.

HETEROSCEDASTICITY – Heteroscedasticity is a condition that may exist in data used in regression analysis. Using the ordinary least squares method, it is possible to measure the variance or error between the observed data and the “best-fitting” regression line through the scatter plot of observed data. Heteroscedasticity is said to exist when the variances between the observed data and the regression line differ widely (i.e., are not uniform) from observation to observation. For example, in a regression analysis, heteroskedasticity would be indicated if the variance increased as the value of the dependent variable increased. The existence of heteroskedasticity may indicate that the observed data consists of two or more sub-samples that should be modeled separately.

HIGHWAY CONTRACT ROUTE (HCR) – A route of travel served by a postal contractor to carry mail by highway between designated points. Some HCRs include mail delivery to addresses along the line of travel. Formerly called *star route*. Source: Glossary of Postal Terms, USPS Publication 32, May 1997.

HOMOSKEDASTICITY – In regression analysis based upon ordinary least squares, it is assumed that the variance or error between the observed data and the “best-fitting” regression line through the data are constant from observation to observation. If this assumption is not satisfied, the regression line will be an unbiased but less precise estimate because of the larger variances.