

**Forest Service Handbook
National Headquarters - Washington Office
Washington, DC**

**Forest Service Handbook 6509.15 – Collection and Analysis of Timber Purchasers' Cost and
Sales Data
Zero Code**

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Digest: Following is an explanation of the changes throughout the directive by section.

6509.15: Makes minor technical, editorial, and grammatical changes throughout the handbook.

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01 - Authority

1. National Forest Management Act (NFMA) of 1976 (16 U.S.C. 472a) section 14(a). This Act authorizes the Secretary of Agriculture to sell trees, portions of trees, and other forest products at not less than appraised value. The provision also authorizes the collection of funds from timber sale purchasers to cover the cost of roads and sale preparation for the harvesting of insect-infested, dead, damaged, or down timber, and associated timber stand improvement.
2. The Knutson-Vandenberg Act of 1930 (16 U.S.C. 576-576b), as amended by the National Forest Management Act of 1976 (16 U.S.C. 472a). This Act directs the Secretary to provide for improvement of the productivity of renewable resources within National Forest System timber sale areas. The Act also authorizes the collection and use of timber receipts for these purposes.
3. The Forest Resources Conservation and Shortage Relief Act of 1990, as amended by the Forest Resources Conservation and Shortage Relief Act of 1997 (16 U.S.C. 620). This Act sets forth restrictions on export of unprocessed timber originating from Federal lands.

02 - Objectives

These handbooks provide general guidelines for accomplishing cost and sales data analysis and collection for timber appraisal purposes. Guidelines in the directives are necessary to ensure vendor cost accuracy. There are three chapters to this program:

1. On site survey of a timber purchaser's accounting records (ch. 10).
2. Analysis, adjustment, classification, and collection of data obtained and/or developed from a timber processor's accounting records, hereafter referred to as cost analysis and collection (ch. 20).
3. Formats for presentation of the Accountant's report (ch. 30).

Although the three program parts described in these instructions are covered individually, combine the survey, analysis, and data collection in one visit with a timber purchaser, whenever practicable. A combined visit has the advantage of a single impact on the operator, on-the-spot comparison of data, and the expertise of two professional disciplines. In any combined visit, each program will retain its separateness.

For example, on site survey visit activities may be kept separate from the accounting records of timber processor. The Cost Accountant's report should be written on the supposition that they may not be present at time of next data collection. Clarity should be the goal of the Accountant's report.

The standards prescribed for cost and sales data are that they should be accurate, complete, and consistent. The standard for consistency applies to data collected from year to year from a timber purchaser and to data collected for a year for all timber purchasers.

03 - Policy

1. Maintain an accurate and complete cost record and determine acceptability of data for appraisal purposes.
2. Ensure cost data conforms to generally accepted accounting principles for appraisal purposes.
3. Cost and sales data must be accurate, complete, and consistent.
4. Evaluate the adequacy of the internal controls and accounting practices during on site survey of the timber purchaser.
5. Prepare a report of the results of cost analysis for the development of timber appraisal guidelines. The report must be complete, reliable and accurate.

04 - Responsibility

04.1 - Washington Office

04.11 - Director of Financial Policy

It is the responsibility of the Director of Financial Policy to coordinate with Forest Management staff to maintain and issue up to date guidelines regarding timber appraisal and cost analysis.

04.12 - Director of Audit and Assurance

It is the responsibility of the Director of Audit and Assurance to:

1. Provide a General Schedule (GS) 0510 qualified staff Accountant to perform timber cost collection, as requested by the Region or Forest if no GS-0510 qualified Accountant is available at the Region or Forest.
2. Provide guidance to Regional or Forest GS-0510 qualified Accountant performing timber cost collection.
3. Determine if operator data is reliable and useful for the timber appraisal.
4. Obtain financial data from the timber operators' accounting system(s) and present the data in a format useful for the appraisal. Financial data may include the trial balance, payroll, vendor and customer invoices, and other records.

5. Interview timber operators to determine which costs are applicable to removing timber and producing the vendor end product.
6. Provide Forest Management staff with unit cost data by appraisal cost centers (such as payroll, accounts payable or receivables).
7. Implement safeguards to maintain strict confidentiality of all operator data.

04.13 - Director of Forest Management

It is the responsibility of the Director of Forest Management to:

1. Provide a qualified GS-0510 Accountant to perform timber cost collection; if no GS-0510 qualified Accountant is available, Audit and Assurance staff shall provide one for this responsibility.

Provide staff to work with Audit and Assurance staff to gather cost from timber purchasers.

2. Incorporate vendor financial data into Forest Service's timber appraisal methods when applicable to determine the right appraisal methodology.
3. Train personnel to understand timber grades, footages, and sales realization by species of all log and timber/lumber sold.
4. Develop a flow chart of the overall vendor/operator plant in order to have a better understand of the scope and size of the operator's business.
5. Schedule at a minimum annual visits with timber operators in order to strengthen working relations.

05 - Definitions

The following terms are most commonly used from the lumber/logging industry, timber appraisal, accounting and standard logging terms. The terms are not all inclusive; however, a website will be provided at the end of each definition section to indicate where additional terms can be obtained.

1. Lumber Industry terms:

Band Saw. An endless belt like strip of steel, toothed along one or both edges and running unidirectionally between two pulleys, used to saw logs —note more than one band saw may be mounted to provide, such as, a twin-band or a triple-band saw.

Board foot. The amount of wood contained in an unfinished board 1 in. thick, 12 in. long, and 12 in. wide (2.54 x 30.5 x 30.5 cm), abbreviated bd ft —note in trees or logs, board-foot volume is a measure of merchantability, and therefore the number of board

feet in a cubic foot depends on tree diameter, amount of slab, and saw kerf; commonly, 1,000 bd ft is written as 1 MBF and 1,000,000 bd ft is written as 1 MMBF.

Bolt. A short piece of pulpwood; a short log.

Cant. A piece of lumber made from a log by removing two or more sides in sawing.

Chip. Small pieces of wood resulting from abrasion by a knifelike machine called a chipper, which slices and grinds whole logs, lumber, slabs, or trimmings into pieces suitable for use in producing woodpulp or pulp-type boards.

Chip-and-Saw. A machine, similar to a planer that reduces a log to lumber on all four sides simultaneously.

Circular Saw. A circular steel plate, that is, a disk, having cutting teeth on the circumference and rotating on a saw arbor.

Clear Lumber. Of a bole or stem, the part free of branches. Of round timber, free from knots. Of timber, free from all visible defects and imperfections.

Common Lumber. Medium and low-grade hardwood lumber. Softwood lumber suitable for general construction and manufacture. Grades of lumber containing defects that render it unsuitable for finish.

Dimension Lumber. Hardwood timber suitable for cut stock (specified widths, thicknesses and lengths of clear material) and softwood 2-inches or thicker suitable for structural lumber. Softwoods cut for producing specified widths, thicknesses, and lengths of clear material may be termed industrial cut stock or shop lumber.

Edger. A machine used to square-edge waney lumber and also to rip lumber. It consists of a frame supporting an arbor fitted with one or more circular saws movable laterally and equipped with feed rollers, press rollers, and transmission gear.

End Match. Matching piece of lumber or veneer end-to-end.

Flitch. A large piece from the side of a log; that is, clear of the pith, which is sawn or hewn on two or more sides, waney, bevel-edged or square-edged, and intended for further conversion.

Gang Saw. A machine in which two or more saws, that is, plates or webs, are mounted together, either on the same arbor or in the same sash. As the latter, that is, the frame-saw type, is by far the commoner, the term "gangsaw" is often used loosely as a synonym for frame saw.

Grade. An established quality or use classification of lumber, timber, or trees.

Green Chain. A long platform in a sawmill on which converted timber is generally conveyed by power-driven chains.

Gyppo. A contractor, generally on felling and primary conversion work.

Hog. A machine for reducing wood to coarse chips, such as for fuel and for the manufacture of wood pulp and wood chipboard.

Hot Logging. Logging operations where the logs go from stump to mill without pause.

Log Scale. Measurement of volume of logs. Expressed in board feet of a specific log rule, such as Scribner long log, Scribner short log, and international 1/4 inch.

Lumber. A loose term generally signifying the sawn products of a tree.

Lumber Tally. A record of lumber giving either the number of boards or pieces by size, grade, and species or the volume of lumber in board feet.

Overrun. The excess of the outturn over the log scale.

Planer. A machine for surfacing sawn timber so as to give the desired thickness of cut and a smooth finish.

Plywood. A composite product made up of cross-banded layers of veneers only, or veneer in combination with a core of lumber or of particle board bonded with an adhesive.

Pulp Log. Log suitable for manufacturing into pulp. Usually cull for lumber or plywood manufacture but suitable for manufacture into pulp chips.

Resaw. A machine fitted with band, circular, or web saws, usually of thinner gauge than head saws and used for the further conversion of timber that has been through the head saw.

Sawlog. A log considered suitable in size and quality for producing sawn timber.

Scribner Decimal C. A rule that describes the board contents of a log of a given size. This is one of numerous board-measurement rules available throughout the United States and Canada.

Seasoning. The process of removing moisture from lumber or other forest products under some form of controlled conditions, such as air drying or kiln drying, so as to improve its performance in service.

Skragg Mill. A type of primary breakdown saw, generally circle saws, used to reduce small round logs to cants or lumber.

Softwood Lumber. Lumber from any gymnospermous tree, such as a pine, spruce, or fir.

Standard Length. Customary length used in the trade. In lumber, usually in 2-foot multiples.

Stud. A square-cut 2-inch by 4-inch by 8-foot piece of lumber.

Stumpage. The value of timber as it stands uncut in the tree, in terms of an amount per measurable unit.

Timber. A general term for forest crops and stands containing timber and also for any lesser aggregation of such trees. Wood other than fuelwood, following primary conversion.

Veneer. A thin sheet of wood of uniform thickness, produced by rotary cutting or by slicing and, sometimes, by sawing.

Yard Lumber. Lumber stored in a timber yard for seasoning and/or sale. Lumber of all sizes and shapes intended for general building purposes.

Waste. Strictly, those portions of a tree or log that could be profitably utilized, but are not.

Additional lumber industry terms can be found at the following website: <http://www.srs.fs.usda.gov/forestops/products/glossary.html>.

2. Logging Industry terms:

Barge Tow. To draw or pull behind by a chain or line: a tugboat towing a barge.

Boom Boat. A small, powerful, almost circular and highly maneuverable boat used to herd logs, usually in a mill pond.

Cable logging. To take logs from the stump to a landing and stationary yarder using winch-driven cables, a block, or a carriage to which logs are attached with chokers; such as, cable yarding.

Chaser. Person who unhooks the chokers from the logs at the landing.

Choke Setter. Person who attaches chokers to logs.

Clear Cut. A stand in which essentially all trees have been removed in one operation.

Commercial Thinning. Usually the second or third thinning on a stand of trees.

Felling/Bucking. Cutting and delimbing trees.

Helicopter Logging. An aerial logging system utilizing helicopters to fly logs or products from stump to landing.

Hook Tender. Boss of the rigging crew.

Log Transfer Facility (LTF). Area for handling logs that are brought from the woods, then transferred to raft or barge for water transport.

Partial Cut. Removal of only part of a stand of trees.

Rafting. Log transportation method in which logs are tied together into rafts and drifted or pulled across a water body.

Rigging Crew. The group of loggers who handle, set up and maintain cable systems.

Shovel logging. A swing-boom shovel/loader is used to repeatedly swing and deck logs progressively closer to roadside landings.

Skidder. A machine, either rubber-tired or tracked, used to drag logs to the landing.

Sort Yard. An area where logs are processed and stored until used or sent to the final destination.

Additional logging industry terms can be found at the following website: <http://pacificforestfoundation.org/glossary.html>.

3. Timber Appraisal terms:

Appraised Value. The value of a tract or individual species of timber based on an analytical appraisal which reflects costs of production and sales realization of the products for the area in which the timber is located and with provision for profit margin.

Base Index. Lumber or other product selling value index.

Base Period. A period of time, usually a calendar or fiscal year, during which the forest products industry has experienced costs and sales realizations sufficient to form a reasonable basis for determination of conversion return.

WWPA Index. An index established and maintained by the Western Wood Products Association (WWPA), which indicates price trends of various species of lumber sold within the Western Wood Products Association region.

Additional timber appraisal terms can be found at the following website: <http://www.fao.org/docrep/007/ae359e/ae359e07.htm>.

4. Accounting terms:

Accountant's Report. A summary of the survey, analysis, and evaluation of data for appraisal. The report sets forth any reservations as to use of any data and its influence upon appraisal. It highlights specific items for consideration in the appraisal procedure and, in general, is a source of information not reported elsewhere. It also serves as a historical record.

Allocability. A cost is allocable if it is assignable or chargeable to one or more cost centers on the basis of relative benefits received or other equitable relationship.

Allowability. A cost is an allowable timber cost if it is reasonable, allocable, and not expressly excluded per FSH 6509.15, chapter 20, Collection and Analysis.

Analyze. To examine the composition of costs and income to determine which are relative and/or extraneous to National Forest timber appraisal and to establish the cost center properly charged or credited with those costs and income.

Arm's-Length. A buyer and seller both free to act, each seeking their own best economic interest and agreeing on a price, are said to have an arm's-length relationship. Transactions between affiliated companies are not ordinarily recorded as being arm's-length even though expressed in terms of market values.

As Presented. The records of sales, expenses, costs, and income of the timber operator made available to the cost Accountant. They generally take the form of a verified trial balance, or the books and records themselves. In certain instances, a certified cost statement may be acceptable for this purpose. Almost invariably, they are the financial accounts of the timber operator. In addition, supporting business documents, such as tax bills and insurance policies; statistical data; footages related to the processing steps, including inventories and other information related to sales or costs, may be made available. Briefly, as presented, means basic source data. It is all of the amounts classified by a cost center that are analyzed and defined for timber appraisal purposes.

Continuous Cost Collection. The (1) programming of work throughout the year and (2) classifying the timber operator data in the next nearest summary date, such as January 1 and July 1, according to the fiscal year-end of the operator's accounts. Summary periods may be regular, quarterly, or semiannual compilations. Publication of these summaries may occur periodically throughout the year as determined by Regional policy.

Cost Allocation. This is part of a general item which cannot be identified directly with a cost center, except by use of proration, imputation, or estimate (item 12).

Cost Analysis. To determine by examination into the composition of a cost item, usually by reference to its historic origin; particularly, to review and set forth in a working paper the details of summary of the items in an account, obtained or substantiated, where necessary, by reference to sources and accompanied by an explanation of major items and by cross-references to related accounts.

Cost Center.

1. A functional division of activities or processing steps starting with acquisition of logs through the sale of the end product.

2. Each cost center is prescribed and defined in Chapter 20, Section 22.5 of this Handbook. A subcost center may be originated whenever it falls within the definition of the cost center itself.

Cost, Direct. A cost specifically identifiable with a cost center and product.

Cost, Imputed. A bona fide cost not recorded by, or treated as, a cost by the timber operator. The most common illustration of this situation is the salary of a sole proprietor included in profit. The cost Accountant imputes the cost for appraisal purposes.

Cost, Indirect. A cost which cannot be specifically identified with a cost center and product. It is necessary to distribute this cost equitably to the causing and/or benefitting cost centers.

Home Office. An office responsible for directing or managing two or more, but not necessarily all, segments of an organization. It usually provides guidance and establishes policies for segments in their operations. It may perform service functions and usually performs management, supervisory, and/or administrative functions. An organization which has intermediate levels, such as groups, regions, or divisions, may have several home offices which report to a common home office. An intermediate organization may be both a home office and a segment.

Labor and Labor Perquisites. These represent salaries and wages plus fringe benefits based on amount of earnings, such as payroll assessments by taxing authorities; for example, social security. Labor perquisites are a broader term and consist of fringe benefits and other costs related to employees. Certain other perquisites may also be classified as labor costs, such as workmen's compensation; and life, health, accident, and hospital insurance, whenever they are based on earnings, kind of work, period of service, or other basis, and apply generally to all employees. Such expenses must be reduced by any related income, such as dividends, rebates, and rate reductions.

Perquisites to employee groups or named individuals should be shown separately by class. Examples are: pensions, gifts, incentive awards, bonuses, special fees, prizes, sporting events, picnics, and any other variety of management-sponsored activities for employees. Such perquisite costs should be reduced by admission fees charged to offset the cost thereof, vending-machine income, or any other cost-related income or net profit.

Operating Revenue. Amounts accrued or charged to customers for the sale of products manufactured or purchased for resale and for services. It excludes incidental interest, dividends, royalty, rental income, and proceeds from the sale of assets used in the business.

Other. This is tantamount to a cost center and is used to accumulate all extraneous and beyond and end-products costs, sales, and income. Other also contains those costs which are not used at the time of appraisal, except for reference or comparison with those computed for an individual sales offering. Unallowable, unreasonable, and unacceptable costs are part of other.

Overhead. The general logging overhead and general manufacturing overhead cost centers contain the general logging and plant costs which are not directly chargeable to a given phase of the manufacturing process.

Examples of plant or manufacturing overhead are general plant supervision salaries, watchmen's wages, plant taxes, plant insurance, supply and repair parts for general use, general maintenance supervision salaries, and payroll taxes and workmen's compensation insurance related to labor of this type. An appropriate portion of these cost-center costs must be distributed to operations extraneous to National Forest timber appraisals.

Residual Expenses. All home office expenses, which are not otherwise allocable on the basis of a direct beneficial or causal relationship to a segment. These expenses must be allocated to all segments based upon the three-factor formula.

Segment. One of two or more divisions, product departments, plants, or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and/or producing a product or service. The term Segment also includes those joint venture and subsidiaries (domestic and foreign) in which the organization has less than a majority of ownership, but over which it exercises control.

Three-Factor Formula. A basis of allocating residual expenses on an arithmetical average of three percentages for the same period for the following areas:

1. Assets.
2. Payroll.
3. Sales.

Verification. The procedure by which validity is ascertained. The process of substantiation involved in proving by customary audit procedures that a statement, account, or item is accurate and properly stated or is within permissible or reasonable limits.

Additional accounting terms can be found at the following website: <http://www.nysscpa.org/professional-resources/accounting-terminology-guide#sthash.so96CTm5.dpbs>.

06 - Standard Logging and Lumber Abbreviations

The following abbreviations are usually used in contracts and invoices related to the sale and purchase of lumber. These are not all inclusive, additional abbreviations can be found at the following website:

AD	Air-dried.
ADF	After deducting freight.
ALS	American lumber standards.
AYC	Alaska yellow cedar

Chapter Zero-Code - Zero Code

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Bd.	Board.
bd. ft.	Board foot.
bdl.	Bundle.
BDU	Bone dry unit.
BH	Boxed heart.
b/L, BL	Bill or lading.
Btr.	Better.
CC	Custom cut
CCF	Hundred Cubic Feet
c.i.f.	Cost, insurance, and freight to a named point of destination.
C/L	Carload.
CLG	Ceiling.
Clr.	Clear.
CM	Center-matched.
Com	Common.
D&D	Dry and dress.
DF	Douglas fir.
Dim	Dimension.
DKG	Decking.
DIS, DS	Drop siding.
E	Edge.
EE	Eased edge.
EW & B	Ends waxes and branded.
f.	Allowable stress in bending pounds per square inch.
F&B	Felling and bucking.
FG	Flat grain.
f.o.b.	Free on board at a named shipping point.
Frt	Freight.
Ft	Foot.
GM	Grade-marked.
GMBF	Gross thousand board foot measure.
GR or GRN	Green.
HEM	Hemlock.
HG	Hog fuel.
H&M	Hit and miss.
H or M	Hit or miss.
IN	Inch.
KD	Kiln-dried.
Lbr.	Lumber.
l.c.l.	Less than carload lot.
lgth.	Length.
Lin. ft.	Linear foot.
LR	Log run.
LR, MCO	Log run, mull culls out.
L.S.	Log scale.
L.T.	Lumber tally.

Chapter Zero-Code - Zero Code

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LTF	Log transfer facility.
M	Thousand.
MBF	Thousand board feet.
MBM	Thousand foot board measure.
MLDG	Molding.
MLT	Thousand lumber tally.
MR	Mill run.
NMBF	Net thousand board foot measure.
PAD	Partial air-dried.
Pat.	Pattern.
PP	Ponderosa pine.
PET	Precision end-trimmed.
PLIB	Pacific Lumber Inspection Bureau.
R/D	Rough dry.
RDM	Random.
RES	Resawed.
Rfg.	Roofing.
R.G.	Rough green.
Rgh.	Rough.
R/L, RL	Random lengths.
R/W, RW	Random widths.
S	Surfaced.
S&M	Surfaced and matched.
SD	Scaling defect.
SDG	Siding.
SEL	Select.
S/L, SL	Shiplap.
SM	Surface measure.
SPIB	Southern Pine Inspection Bureau.
SS	Sitka spruce.
STD	Standard.
Stk.	Stock.
STR	STRUCT. Structural.
SYP	Southern yellow pine.
S1E	Surfaced one edges.
S2E	Surfaced two edges.
S1S	Surfaced one side.
S2S	Surfaced two sides.
S4S	Surfaced 4 sides.
TBR	Timber.
T&G	Tongue and grooved.
VG	Vertical grain.
WCLIB	West Cost Lumber Inspection Bureau.
WRC	Western red cedar.
WTH	Width.
WWPA	Western Wood Products Association.