

A LOOK AT THE MANPOWER CAREER FIELD

Core Competencies

a. Organization Structure. HQ USAF Directorate of Manpower and Organization is the Air Force “Gatekeeper” for organization structure. It is responsible for the administrative control of all units and standard structures in the Air Force. MAJCOM, FOA, and DRU Directors of Manpower and Organization are responsible for reviewing and evaluating organization change requests from within their respective commands. Base-level manpower offices are responsible for assisting and advising personnel on organization changes.

The common vehicle to request an organization change is the organization change request (OCR). It is used to request unit activations, inactivations, redesignations, and variations to standard organizational structure. Information on organizational actions is contained in three documents. AFPD 38-1, *Organization and Unit Designations*; and AFI 38-101, *Air Force Organization*.

b. Program Allocation and Control. Program allocation and control occurs at different levels and degrees throughout the manpower function. Air staff personnel are involved in the planning, programming, and budgeting cycle. They deal directly with the Future Years Defense Program (FYDP) allocation process and implement authorization adjustments. MAJCOM directorates and base-level manpower offices support organizations in manpower management by advising personnel on and processing of manpower authorization change requests (ACR). The manpower office also assesses and validates manpower requirements, conducts management advisory studies, reviews and assesses civilian personnel positions, support agreements, critical military skills, grade rollbacks, and reductions in force. The manpower office personnel participate in military planning (formerly referred to as deliberate and crisis-action planning); maintain the Deliberate and Crisis Action Planning and Execution Segments (DCAPES) system; and provide deployment and in-place contingency manpower data. In addition, they validate augmentation duty requirements as an advisor to the Augmentation Duty Program (ADP) Board; assist commanders in identifying key and emergency essential civilian authorizations; and assist Functional Managers with unit type code (UTC) development or review. Also, they review and process annual and out-of-cycle Individual Mobilization Augmentee (IMA) requests.

Perhaps your first encounter with the base-level manpower office will be with the management of the Unit Manpower Document (UMD). This is the document that lists exactly how many of each grade and AFSC each unit needs to accomplish its work. The base-level manpower office utilizes a database software program called the Manpower Programming and Execution System (MPES) to retrieve UMDs.

c. Requirements Determination. Requirements determination also occurs at varying levels and degrees throughout the manpower career field. Air staff may develop special functional estimating equations to help determine requirements for various functions during the FYDP allocation process. MAJCOM or base-level manpower personnel may be directed to update various manpower standards to determine current requirements. This may entail workload data collection to see if the number of manpower requirements should be changed. The most active manpower organization in requirements determination is the Air Force Manpower Analysis

Agency (AFMAA). AFMAA has three squadrons that utilize many manpower tools to determine Air Force manpower requirements. Base-level manpower office personnel may assist AFMAA by performing data collection at their installation. One of the primary instructions on requirements determination is AFMAN 38-208V1, *Air Force Management Engineering Program (MEP) - Processes*.

d. Improve Performance. Improves performance through planning, designing, advising, and facilitating organizational and functional process improvement through integrated process teams, benchmarking, process mapping, work measurement, modern business practices, metric development for manpower requirements, performance measurement, and organizational design. Plans and organizes manpower activities for conducting management consulting services, to include operations research, systems and procedures analysis, workload essentiality, work distribution and work flow, skill mix, work methods and simplification, layout analysis, benchmarking, and work measurement and analysis. Designs methods and tailors consultation to improve organizational performance. Uses industrial engineering and computer techniques to facilitate work measurement and process improvement. Measures and analyzes organizational systems performance including data collection and analysis, metric development, system effectiveness surveys, and forecasting system performance. Facilitates in developing short and long-term goals and strategies relating to performance management. Designs systems with focus on effectiveness and efficiency. Assists organizations participating and benefiting from, Air Force productivity enhancement programs, to include Airmen Powered by Innovation (API) and Continuous Process Improvement (CPI) programs.

EXPLANATION OF TERMS & ACRONYMS

- A -

Accountable Time - Total man-hours for which the work center supervisor is held accountable in determining productivity or operational efficiency. Accountable time equates to assigned time plus borrowed time plus overtime minus non-available time minus loaned time.

Action Plan - Specific method or process to achieve the results called for by one or more objectives.

Action Workout - An Action Workout is a rapid, concentrated, high-energy, team effort to make dramatic productivity improvements in any organization by reducing cycle time.

Activity Sampling - Observing worker activity at random intervals and classifying the activity into predetermined groupings of work.

Adjustment Factor - A specific computed value used to adjust an individual category time or associated work unit count.

Aggregation - The procedure of summing fractional work center manpower requirements (generated by application of manpower determinants) before applying rounding procedures. This definition is applicable only when the term is associated with fractional manpower.

Air Force Manpower Standard (AFMS) - A numbered, specialized, approved Air Force documentation of how manpower is earned in each function in the Air Force, with variances to the standard manpower determination.

Alignment - The process of improving a system so that all elements contribute to a common goal.

Allowance - A time increment included in the standard time for an operation to compensate the worker for production lost due to fatigue and normally expected interruptions, such as for personal, rest, and unavoidable delays (PR&D). It is usually applied as a percentage of the normal time.

Allowance Factor - A coefficient, based on authorized allowances, which is applied to productive time (if appropriate), and results in the productive allowed time.

Assessment - A systematic process of collecting and analyzing data to determine the current, historical, or projected status of an organization.

Assignable cause - The name for the source of variation in a process that is not due to chance and therefore can be identified and eliminated.

Audit - “The inspection and examination of a process or quality system to ensure compliance to requirements. Audit can apply to an entire organization or be specific to a function or production step.” (Dr. Joseph M. Juran).

Avoidable Delay - Any unnecessary delay, regardless of source, that causes work stoppage. Time lost to avoidable delay is not included in the determinant.

- B -

Backlog - An accumulated workload volume not yet done. That portion of work in progress that is behind schedule or beyond the immediate capability of the processing organization.

Base Population - The summation of all categories of assigned personnel at an Air Force installation. This definition may be expanded to include assigned personnel not located on but supported by the installation. Base population may also be modified to exclude certain categories of assigned personnel.

Base Time - The time required for completion of a task under the circumstances defined as standard except that it does not include any time for the operators' personal needs and time lost due to other miscellaneous causes.

Baseline measurement - A beginning point based on an evaluation of the output over a period of time to determine how the process performs prior to any improvement effort.

Benchmark Time - Reasonably expected value for frequency, per-accomplishment time, or workload values to be used as guides during work measurement.

Benchmarking - The process of finding and adapting best practices to improve organizational performance.

Bi-variate Equation - An equation that contains only two variables, such as X and Y.

Borrowed Time - Time on loan from another work center.

Boxplot - A graphic summary of a distribution where the overall dispersion and the central tendency or mean of the data are highlighted.

- C -

Category - A major subdivision (i.e. paragraph) of the work center description. Each category contains a number of associated tasks unique to the category. The sum of all categories equates to all work authorized and required to be performed by the center.

Centerline - Represents the overall average operating level of the process.

Central Tendency - The tendency of data gathered from a process to cluster toward a middle value, somewhere between the high and low values of measurement.

Chart - A tool for organization and summarization; aids in the analysis of data and displays organized information in graphic form.

Charter - A written commitment by management stating the scope of authority for an improvement group. Resources, including time and money, are specifically addressed.

Checksheet - A form for recording data on which the number of occurrences of an event can be recorded as ticks or checks.

Consultant - An individual who has experience and expertise in applying tools and techniques to resolve process problems and who can advise and facilitate an organization's improvement efforts.

Control - Keeping a process within boundaries; minimizing the variation of a process.

Control chart - A problem solving statistical tool that indicates whether the system is in or out of control, as determined by computed control limits.

Control limits - "Defines natural boundaries of a process within specified confidence levels" [upper control limit (UCL), and lower control limit (LCL) defined on a control chart]. (J.R. Russell)

Cost-benefit analysis- A way to compare the costs and benefits of plans. Can be used for comparing the financial outcomes of different actions and determining if a particular action makes sense financially.

Countermeasure - Action taken to counter the verified root cause of a problem.

Cross-functional - A term used to describe individuals from different organizational units or functions who are part of a team to solve problems, plan and develop solutions affecting the organization as a system.

Cycle:

1. In time study, a sequence of elements in the performance of a task. An interval or span of time in which one set of elements occurs regularly and in the same sequence.
2. An interval or span of time during which a representative composition and amount of work is done in a work center.

- D -

Data - A set of facts presented in descriptive form. There are two basic kinds of data: measured (also known as variable), and counted (also known as attribute or enumerative data).

Delay Allowance - A time increment in a time standard used to compensate for unavoidable delay.

Departmental task analysis - A method for analyzing an organization by determining its mission and how it interacts with customers and suppliers. Used to position the organization for improvement.

Desired Accuracy - The maximum amount of error acceptable in a sample. This is stated as absolute accuracy or relative accuracy.

Deviation - In data sets, the difference or distance of an individual observation or data value from the center point (often the mean) of the data set distribution.

- E -

External Work - Any element of an operation that must be performed by the operator while the machine or process is not in operation. External work results in a loss of potential machine or process operating time.

Extrapolation - Extension of the regression line beyond the range of the input data to increase the determinant's utility, to expand the determinant's applicability, and to prevent rapid obsolescence due to workload changes.

- F -

Facilitator - A person specially trained who functions as a teacher, coach, and moderator for a group, team or organization.

Family of Standards - A group of manpower determinants, concurrently or separately developed, related by the characteristic that the entire group is common to the same functions or work centers.

Fast Payback Capital Investment (FASCAP) Program - A part of the Productivity Enhancing Capital Investment (PECI) Program which uses capital investment funds for improved productivity.

Flowchart - A graphic, structured representation of all the major steps in a process.

Flow Diagram - A representation of the location of activities or operations and the flow of materials between activities on a pictorial layout of a process. Usually used with a flow process chart.

Flow Process Chart - A graphic, symbolic representation of the work performed or to be performed to produce a product or service as it passes through some or all of the stages of a process.

Force field analysis - A technique that helps you identify and visualize the relationships of significant forces that influence a problem or a goal.

Force Sizing Exercise (FORSIZE) - An annual manpower sizing determination that establishes wartime manpower requirements as a part of the wartime manpower planning and programming process.

Fractional Manpower - Manpower requirements to do a specific workload, expressed in fractional parts of whole persons.

Fractional Manpower Breakpoints - Multiples of whole-man positions above which an additional position is authorized for that work center.

Frequency - The number of times a specific value occurs within a sample of several measurements. In work measurement, the number of times an element occurs during an operation cycle.

Frequency distribution - A statistical table that graphically presents a large volume of data so that the central tendency (average/mean, etc.) and distribution are clearly displayed.

Function - A group of related actions contributing to a larger action.

Funded Military Grade - The grade reflected in the authorized grade column (data element – GRD) of the unit manpower document. In aggregation, grades in this data element are constrained to approximate statutory and budgetary limitations. Personnel assignment actions are influenced by the grade authorized in this data element.

- G -

Gap analysis - The comparison of a current condition to the desired state.

Good Operator Technique - An operational audit technique that establishes time values by measuring the time a qualified individual spends on a given activity.

Government Performance and Results Act of 1993 - The law provides for the establishment, testing and evaluation of strategic planning and performance measurement in the Federal Government (Public Law 102-62, August 3, 1993)

Grade Structure - Distribution of grades within an organizational entity.

- H -

Histogram – A chart that takes measurement data (e.g., temperature) and displays its distribution. A histogram reveals the amount of variation within any process.

- I -

Implementation - A structured approach that addresses all aspects (who, what, when, where, why, and how) of incorporating improvements into the process or system.

In control - Describes a process that has variations which fluctuates between the computed control limits. It may indicate the process is behaving as desired or that any problems can be attributed to the process. A process “in control” is stable and therefore predictable.

Inferred Workload - Workload that is defined as the responsibility of another work center. It can be treated by transferring either the workload, prior to measurement, or the time expended on that workload (loaned time) to the appropriate work center, after measurement.

In-house Activities - Activities operated and managed by Air Force in-service personnel to provide products or services.

Inputs - Products or services obtained from others (suppliers) in order to perform your job tasks.

Input Population - Data that enters the queuing system, characterized by its size (that is, the total number of units that could require service at one time or another).

Inspection - Process of measuring, examining or testing a product service against some requirement to identify nonconformance before it reaches a customer.

Inspection costs - Cost associated with inspecting the product to ensure that it meets the customer's (internal or external) needs and requirements.

Internal Work - Manual work performed by an operator while a machine or process is operating automatically.

Intervention - The role of team facilitator when he or she interrupts a group to state his or her observations about the group dynamics.

- J -

Just-in-time (JIT) - A concept where an item is delivered, just-in-time, where and when it is needed.

Just-in-time inventory - The minimum inventory required to meet production schedules.

Just-in-time training - A process of providing training when it is needed. Eliminates the need for refresher training due to subject knowledge loss experienced if training precedes, over an extended period of time, the knowledge use.

- K -

Key process - The major system level processes that support the mission and satisfy major customer requirements. The identification of key processes allows the organization to focus its resources on what is important to the customer.

Key result area - A major category of customer requirements that is critical for the organization's success. Measurable requirements identified in an organization's mission statement.

- L -

Layout - The physical arrangement, either existing or planned, of facilities or items necessary to perform a work task.

Layout Analysis - Studies used to improve production, ease physical exertion, and shorten travel for material and personnel.

Lead Command - A command responsible for conducting a directed study.

Lead Team - A MO chosen to do a functional review manpower determinants development study or to do other MEP study or duty monitored by a command.

Leveled Time - Actual productive time adjusted to account for differences in pace of observed workers.

Leveling - Process whereby an analyst evaluates observed operator performance in terms of a concept of normal performance. Syn: Performance Rating.

Loaned Time - Time loaned to other work centers. This time is not accountable to the work center providing the loaned time.

- M -

Management Consultant Study - A consultant service requested by a base-level work center supervisor or manager and generally applicable only to that base. Specific results are released with permission of the requesting OPR.

Management Engineering - Requirements are validated manpower needs that have been deferred because of budgetary constraints. Funded and unfunded requirements appear on the UMD.

Manpower Resources - Human resources available to the Air Force that can be applied against manpower requirements.

Manpower Determinant - A quantitative expression that represents a work center's man-hour requirements in response to varying level of workload. A determinant also includes a description of work center tasks and associated conditions on which the determinant is built.

Manpower Standards Study Report - Historical documentation prepared by the lead team costing of the manpower determinant, supporting comments and documents, and computational data.

Manpower Determinants - Study Measurement Plan - Document prepared by the lead team addressing HOW the study will measured workload. See Study Plan.

Manpower Utilization - The manner in which manpower resources are distributed in an organization to accomplish the assigned functional mission.

Measurement - The act or process of quantitatively comparing results to requirements to arrive at a quantitative estimate of performance.

Methods Improvement - An organized way of finding easier, faster, or more economical methods of doing work.

Metric - A measurement, taken over a period of time, that communicates vital information about a process or activity. A metric should drive appropriate leadership or management action. Physically, a metric package consists of an operational definition, measurement over time and presentation.

Mental imaging - A technique that uses the imagination of experienced or informed persons to visualize success.

Minimum Manpower - A method of developing a determinant that couples a functional OPR-approved requirement with a predetermined manpower factor.

Minimum Manpower Factor - A fractional manpower computation that shows the manpower required to man a position. This factor is dictated by the need for one or more individuals to be on duty although they may not be continuously productive.

Mission - The mission of an organization (and of an activity) describes its reason for existence. Mission statements are broad and expected to remain in effect for an extended period of time.

Mission Capability Statement (MISCAP) - A descriptive analysis of a unit type code addressing workload capability, number of personnel required and corresponding skill levels.

Mission Directive - Description of work that explains a work center's responsibility.

Mission Effectiveness Chart - A chart associated with an organization's effectiveness indicator. It reflects the organization's policy on effectiveness by associating effectiveness points on the vertical axis for different levels of performance identified by its associated indicator values along the horizontal axis.

- N -

Natural working group - A group of people, similar to process action teams (PATs), except the process to be improved is owned and operated by the members of the group rather than senior leaders or process owners.

Non-measurement Approach - Measurement techniques that are used to validate the existing manpower requirements without actually performing a statistically controlled work measurement. The non-measurement approaches are staffing pattern, directed requirements, position manning and simulation.

Non-productive Time - Accountable time expended in either PR&D, standby, on call, or idle (avoidable delay) status.

Non-programmable Workload Factor - If the selected WLF is not in programming documents or if the transition of a potential WLF to a programming variable cannot be made due to differences in definitions, then the WLF is non-programmable.

Non-transferable Work - Work essential to the work center that must be done at a specific time or period. It can be direct or indirect type work.

Non-value added - Not essential to the achievement of process output.

Norms - Expectations of behavior mutually agreed upon by a team. (Also called "rules of engagement.")

- O -

Objective - A specific statement of a desired shorter-term condition or achievement. Includes measurable end results to be accomplished by specific teams of people within time limits. It is the “how, when and who” for achieving a goal.

Observation - In work sampling, the act of noting what the people in a work center, or in a specified portion of a work center, are doing at a specific instant. Such an observation yields a number of samples equal to the number of people observed. See Sample.

Obsolete Determinant - A manpower determinant that has been rescinded or superseded by another determinant and is no longer current. Also a manpower determinant that does not adequately portray the prescribed mission responsibilities of the function. Such determinants are deleted from the manpower determinants publication with the coordination of the appropriate functional OPR.

On-Call Time - A nonproductive category of time in which an off-duty worker can be contacted by telephone or other means at a prearranged location other than the work station. Only the productive time performed by the worker in the work center or at the work location, including necessary associated travel, is to be credited to the work center.

Outlier - A term used to describe those data points that do not conform to the general pattern or trend described by a data array or scatter gram, (for example, data points that are beyond established control limits or that are significantly divergent from an otherwise apparent trend).

Outputs - Products, materials, services, or information provided to customers (internal or external).

Out of control - Describes a process that has variations which fluctuate outside the computed control limits. This condition normally indicates the process is not operating as desired or that external factors have been introduced. A process “out of control” is not stable and therefore is not predictable.

- P -

Pairwise ranking - A group decision-making and prioritization method. Used to prioritize groups of items via comparison of predetermined criteria.

Paradigm - A set of rules and regulations that defines boundaries and tells what to do to be successful within these boundaries.

Pareto chart - A statistical method of measurement to identify the most important problems through different measurement scales; e.g., frequency, cost etc. It directs attention and efforts to the most significant problems.

Performance Rating Factor:

1. A numerical index that relates an observed performance to a defined normal performance.
2. Any of the terms or elements used for the comparison of performance.

Performance Sampling - A technique for deriving the performance rating factor to be applied to an operator – or a group of operators - determined by short, randomly spaced observations of the performance.

Performance standard - No deviation from agreed upon valid internal or external criteria.

Personal Allowance - Time included in a determinant to permit a worker-to attend to personal necessities, such as obtaining drinks of water or making trips to the restroom (usually applied as a percentage of the leveled, normal or adjusted time).

Policy - Overarching plan (direction) for achieving an organization’s goals.

Policy deployment - Process for developing and deploying an organization’s plans and goals to the implementation level (top down) and then actions and metrics to achieve them (bottom up).

Policy management - Targeting the achievement of breakthrough by concentrating organization efforts and resources on a few priority issues. By doing this you: increase performance levels, improve communication of organization and unit direction and ensure broad participation in the development and attainment of long-term and short-term goals.

Predictability - A significant attribute that allows reliable predictions for future time periods to make a determinant useful for programming future requirements.

Prevention - A quality assurance strategy that attempts to identify and correct unacceptable service or product characteristics during the design, development or production phases.

Primary Aircraft Inventory - The number of aircraft authorized in the USAF Programming Document.

Procedure - A sequence of written operations established to get uniform processing by telling what actions are to be taken, who takes them, the sequence to be followed, and the tools to be used.

Procedure Chart - A graphical display showing the flow of material or information in an organization. It reflects the flow of information between work stations and between work centers, shows decisions made, and actions taken by individuals.

Process action team (PAT) - A chartered team made up of members with a vested interest in improving a process whose scope and duration are clearly defined by the process owner.

Process owner - “The person who coordinates the various functions and work activities at all levels of a process, has the authority or ability to make changes in the process as required, and manages the process end-to-end so as to ensure optimal overall performance.” (AT&T)

Production Count - See Work Count.

Productive Time - Time spent performing work that is useful and essential to the mission of the work center.

Productivity Control Chart - A graph showing observations in terms of productive percentages.

Program Change - An approach used to determine programmed requirements. This could cause manpower changes.

Program Element Code (PEC) - An alphanumeric code assigned to each program element that is used to identify a Major Force Program.

- R -

Random cause - A cause of variation due to chance and not assignable to any factor.

Relative Accuracy - Size of error allowed in the sample when accuracy is stated relative to the value of the mean. Relative accuracy is used primarily in time study. See Desired Accuracy.

Required Grade - The grade reflected in the required grade column (Data Element- RGR) of the UMD. The grades in this data element represent unconstrained requirements needed to do the job and are, when applicable, determined by the management engineering process.

Requirements - “Performance standards associated with specific and measurable customer needs; the “it” in do it right the first time.” (AT&T)

Resource Utilization - The application of resources (personnel, materials, and services) to perform missions, functions, and responsibilities.

Rest - An allowance made in a manpower determinant to account for mental or physical weariness caused by job difficulty and environmental conditions.

Restraining force - Forces that tend to keep a situation from changing in the way that you would like it to.

Rounding - A process that terminates an endless string of decimal places.

- S -

Sample - A single recorded status of one person during an observation of a work center. Usually, more than one sample comes from one observation. The number of samples needed affects the number of observations required for each work center.

Sampled Time - Computed man-hours from a work sampling study which are based on total available samples.

Sampling - The process of taking a small part of quantity of something for analysis.

Scatter diagram - "A graphical technique to analyze the relationship between two variables." (ASQC Quality Progress, Feb 92).

Scatter grams - A two-dimensional chart on which known values of two variables are plotted. Examination of the chart shows the form of relationship which exists between the variables for example, straight line or curvilinear.

Simulation - A non-measurement method used to determine total work center manpower requirements. The most common technique is queuing.

Special cause - Causes of variation, in a process, that arise because of special circumstances. They are not inherent parts of a process.

Special Study - A consultant service requested by a base-level work center supervisor or manager and generally applicable only to that base. Specific results are released with permission of the requesting OPR.

Staffing Patterns - Man-hours allowed, usually on a one-for-one basis, in work centers that are not governed by rate of production but are established for management functions.

Statistical process control - "The application of statistical techniques for measuring and analyzing the variation in processes." (Dr. Joseph M. Juran)

Statistics - "Descriptive: involves the tabulation, depicting, and describing collections of data. Inferential: a formalized body of techniques characteristically involving attempts to infer the properties of a large collection of data from inspection of a sample of the collection." (Glass & Stanley)

Strategic planning - The process by which an organization envisions its future and develops strategies and plans to achieve that future.

Strategies - A broad, multifaceted approach chosen by an organization that is intended to move the organization from where it is to where it wants to be. Strategies address one or more critical issues.

Stretch goals - A set of goals designed to position the organization to meet future requirements.

Subprocess - The process that makes up a larger process.

Suppliers - The source of materials, service or information input to a process. Suppliers can be internal or external to an organization or group.

System - A group of interdependent processes and people that together perform a common mission.

Systems Analysis - Investigating a system of operation in an organization from supplier to customer. Then developing a new system incorporating the viable ideas of all workers in the system with the intent of improving service to the customer.

- T -

Task - Specific, definable activities to perform an assigned piece of work, often finished in a certain time.

Task List - A clear and complete description of the actions or duties performed by an individual.

Technical Estimate - A determination of the standard hours required for a given task, based on an estimate by individuals who are technically and professionally competent to judge the time required.

Thematic content analysis - A procedure for finding patterns in raw data.

Time Study - A work measurement method consisting of careful time measurement of the task with a time measuring instrument. The study is adjusted for any observed variances from normal effort to pace. It allows adequate time for unavoidable or machine delays, rest to overcome fatigue, and personal needs. Learning or progress effects may also be considered. If the task is long, it is normally broken down into short, relatively homogeneous work elements, each of which is treated separately by, and in combination with, the rest.

Transferable Work - Work that is essential to the work center but, may be performed at any time or during any period. It may be direct or indirect type of work.

Transient Time - Time associated with travel and leave in conjunction with PCS move. Manpower authorizations to offset this loss are provided for in the transient or individuals account and are not contained in the MAJCOM UMD.

- U -

Unavoidable Delay - An occurrence that is essential and outside the worker's control or responsibility that prevents the accomplishment of productive work.

Unavoidable Delay Allowance - See Delay Allowance.

Unit Labor Cost - A measure of the amount of man-hours required to produce one unit of an organization's product or service.

- V -

Values- The fundamental beliefs that drive organizational behavior and decision making. Stated values may or may not match real values as exhibited by behavior.

Variation - The difference among individual outputs of the same process; common or special.

- W -

Weighted criteria ranking - A way to prioritize a list of issues, ideas or attributes by assigning weighted criteria to judge them.

Weighted voting - A way to prioritize a list of issues, ideas or attributes by assigning points to each item based on its relative importance.

Work Sampling - The application of statistical sampling theory and techniques to the study of work systems. The characteristics of the sampled (observed) work performed are used to produce estimates of the amounts of work and types of activity performed. Work sampling data can be used in conjunction with associated work counts to compute standards.

Workshop - The medium used by the functional review process, involving the functional OPR and manpower communities, to formulate initiatives that streamline existing organizational structures, methods and procedures, and enhance equipment, material, and energy usage.

Work Unit - The basic identification of work accomplished or services performed. Work units should be easy to identify; convenient for obtaining productive count; and usable for scheduling, planning, and costing. Syn: Workload Factor.

Workload - An expression of the amount of work, identified by the number of work units or volume of a workload factor, that a work center has on hand at any given time or is responsible for performing during a specified period of time.

Workload Factor (WLF):

1. An index or unit of measure that is consistently representative of, or relatable to, the manpower required to accomplish the quantitatively and qualitatively defined responsibilities of a work center.
2. An end product (or a combination of products) that represents the work done in the work center. It may be either something physically produced in the work center (referred to as a production-type workload factor) or something that is external to, but served by, the work center (referred to as a work generator-type workload factor).

- X -

X-chart. A variable control chart used with an R-chart (Range) to track process variability. Also called the \bar{x} , R chart.