Position Classification Standard for Coding Series, GS-0357

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SERIES DEFINITION

This series includes positions engaged in supervising, verifying, or performing work involved in coding information from schedules, questionnaires, reports, documents, and other written source material, according to codes involving numerical and alphabetical symbols, and performing other incidental clerical tasks. This series includes those positions that require some knowledge of the information being coded in addition to procedural knowledge, as well as those positions that require only procedural coding knowledge.

This standard supersedes the standard for the Statistical Coding Series, GS-1532, issued in March 1944 and December 1953 under the code CAF-1530, subsequently recoded to GS-1532.

EXCLUSIONS

1. Positions which require the knowledge and application of statistical methods, procedures, and techniques, whether or not in combination with coding work. (See Statistical Clerical and Administrative Series, GS-1531.)

2. Positions where card punch training and experience is the paramount qualification requirement. (See Data Transcriber Series, GS-0356.)

3. Positions involving the use of algebra, logarithms, trigonometric functions, and higher mathematics in the computation of experimental and theoretical data. (See Mathematics Technician Series, GS-1521.)

4. Positions involving the conversion of generalized or detailed plans and flow charts of operational sequences into flow charts for machine solution and subsequently into completely detailed machine instructional steps coded into a language acceptable to a digital computer, and the development of test data and routines to verify the completeness and adequacy of computer programs

5. Positions which involve coding as an incidental function to the paramount duties. For example, positions responsible for clerical work involved in the documentary control of the receipt, storage, transfer, replenishment, adjustment, disposition, and/or issue of stock (supplies, materials, equipment, parts, etc.) or property items, where coding is incidental to the primary purpose of the work, are classified in the Stock Control Clerical Series, GS-2040. Included in the Coding Series are positions involving coding in a subject-matter area, such as positions coding medical or industrial information, where the coding function is the primary reason for the position's existence.

NATURE OF THE OCCUPATION

Coding clerks in the Federal Government are engaged in coding many different types of information under a variety of coding systems or situations. The information coded in a given agency depends on the agency's mission and is generally coded to facilitate its use for statistical purposes or maintenance of efficient records. Most of the information coded by incumbents of positions in this series is used in coded form for automatic data processing.

The proper coding of information has a significant impact on vital agency programs, and incorrect coding could lead to errors of serious dimension. Therefore, it is of utmost importance that coding clerks be accurate and that they understand the purpose of their work. In some coding situations, a certain production record must be maintained, requiring both speed and accuracy. A good learning ability is required in order to grasp the application of coding instructions or procedures and, for some positions, to require substantive or subject-matter knowledge.

The following are some of the kinds of information coded by positions in this series. Whether or not they require substantive knowledge depends upon the interpretations required of the coding clerk in a particular coding situation.

1. Industry classifications, assigned on the basis of the nature of business descriptions submitted by employers from which are derived economic statistics.

2. Medical and non-medical items pertaining to disability determinations on which disability benefit payments are based.

3. Causes of death which are used in vital statistics reports and various research programs.

4. Records of medical treatment or other medical care of individuals, including diagnostic data, descriptions of injuries, residual disabilities, surgical procedures, other therapeutic or prophylactic (disease-preventing) procedures, etc.

5. Medical pictures, slides, x-rays, etc., which are kept on record according to the anatomical site that is the subject of the picture.

6. Vessel (ship) utilization and movement records, including cargo, trade routes, and ports, that are used in the development of waterborne commerce statistics and maritime reports.

7. Personnel data used in reports on military and civilian personnel strength and various other reports and records.

8. Data on equipment, supplies, etc., for use in such documents as inventory reports and contracts.

9. Data on transportation, freight, accidents, and miscellaneous administrative data.

While some positions in this series are responsible for the application of specific coding instructions only, many of them require the ability to acquire and apply subject-matter or substantive knowledge of the information being coded.

Those positions requiring procedural knowledge, where the nature of the information being coded and application of the coding procedure can be understood with a limited amount of instruction, are found primarily at the lower grade levels, GS-2 and GS-3. This type of coding involves translation of an item into a code according to rather well-defined procedures. Although application of a few rules and simple arithmetical computation may be required, the coding clerk is not required to do extensive work with reference books or complicated regulations before determining the proper code.

Those positions requiring subject-matter or substantive knowledge of the information being coded, where the nature of the information as it is given to the coding clerk requires that he have this subject-matter knowledge in order to apply the coding procedures, are found primarily at the higher grade levels in this series, GS-3 and above. Coding work requiring knowledge of the information being coded generally requires extensive work with reference books or regulations before the proper code can be determined. Whether a coding position does or does not involve substantive knowledge is determined on the basis of the particular coding situation, i.e., the kind of knowledge and interpretation required of the coding clerk, and not solely on the basis of the type of information coded.

Some coding work requires that the coding clerk do a considerable amount of preliminary work in going over forms giving supporting data on the information to be coded, or working with reference books or regulations, before the proper code can be determined. It may require that the papers be checked to see whether information is complete and consistent and whether further details should be requested from the source of information before it is coded. Therefore, the coding clerk may have to take several procedural steps before arriving at the proper code. The review of forms for such aspects as completeness and consistency and the performance of other clerical tasks preparatory to coding do not form a valid basis for excluding positions from the Coding Series.

Some coding clerks are engaged in the verification of coding work. They may verify on a full-time basis, or they may spend a portion of their time coding. Verifiers are generally required to have the same knowledge and ability as the coding clerks whose work they are verifying. In some coding situations, verifiers select cards on a sample basis, code them, compare them to the original coding, and resolve differences. However, in many coding situations, automatic data processing equipment selects a sample of cards to be verified, and the sample is coded by the verifier. The automatic data processing equipment then compares the verification coding with the original coding and automatically identifies and sorts inconsistencies. The error rate can then be determined. In most coding situations, in cases where the error rate is high, cards are recoded and verified on a 100 percent basis. Whether or not the verification process will be carried out and, if so, how it will be done is a management decision. A coding clerk who is coding on a sample basis and correcting inconsistencies (whether identified by the coding clerk or the machine) is performing the verification function.

TITLES

The title of nonsupervisory positions in this series is Coding Clerk. For supervisory positions, the word "Supervisory" is prefixed.

No specializations are established in this series. Certain coding positions require substantive knowledge of the information being coded. This is true, for example, of some positions engaged in coding medical and business information. However, this substantive knowledge is usually acquired through on-the-job training and is generally not a recruitment factor. Because this knowledge is so closely related to the coding procedures or instructions which must be learned anew with each new coding situation, it does not constitute the kind of knowledge that warrants establishment of specializations.

GRADE-LEVEL CRITERIA

Nonsupervisory positions

Positions in this series are closely related to clerical positions in other occupations. Coding is performed within a framework of procedures, regulations, precedents, and instructions, and the qualification requirements for these positions, in terms of general knowledges and skills, are essentially the same as those required for general clerical positions. The substantive knowledge required in coding is closely tied to general clerical ability. Therefore, the grade-distinguishing elements for general clerical positions are appropriate criteria for the evaluation of coding positions.

Nonsupervisory positions in the Coding Series are evaluated by reference to the Grade Level Guide for Clerical and Assistance Work; however, they are to be coded to the GS-0357 series.

Supervisory positions

Supervisory positions are evaluated by reference to the General Schedule Supervisory Guide.

Verification

Most coding clerks performing the verification function are classified at the same grade level as those performing the original coding. However, positions of verifiers reviewing coding work performed at GS-3 and above, who have final responsibility for correcting coding errors, are classifiable one grade higher than the positions responsible for the original coding work and/or verification without final responsibility. These positions are to be evaluated in accordance with the provision on pages 16 and 17 of the General Grade Evaluation Guide for Nonsupervisory Clerical Positions, GS-0301, for situations where supervisory control over a position evaluated at GS-3 or higher is substantially less close and less complete than that described as normal.

NOTES ON DEGREES FOUND AT THE HIGHER GRADE LEVELS

The lower degrees of each grade-distinguishing element in the General Grade Evaluation Guide for Nonsupervisory Clerical Positions need no special interpretation in regard to their application to positions in the Coding Series.

The notes given below are to serve as additional information for evaluation of the higher degrees of the grade-distinguishing elements as they apply to positions in the Coding Series. They are to be used in conjunction with the General Grade Evaluation Guide, not in place of it.

Examples given below are representative of situations normally found in this occupation, but they are not meant to be restrictive and all-inclusive. A position should not be evaluated at a specific degree solely because the kind of information coded is the same as that given in an example. Degree and grade determinations should be based on the particular coding situation, i.e., the kind of knowledge and interpretation required, the nature and volume of guidelines used by the coding clerk, etc., and not simply on a matching of the type of information coded with one of the examples given. Only those degrees typically found at the higher grade levels are described below. A given position, however, may meet any degree of a grade-distinguishing element.

Element A. -- Qualifications required

This element refers to the length of time required, on the average, to train a coding clerk to perform a given type of coding work at the rate of accuracy and production typically found at the full performance level. It does not refer to the time necessary for the achievement of superior performance.

Degree 4. -- In the Coding Series, this degree is found in some positions requiring subject-matter or substantive knowledge of the information being coded. It involves specialized terminology and an understanding of many subtle relations in order to apply the coding instructions. An example of a position that meets this degree is that of a coding clerk who is responsible for coding benefit payments. This coding requires knowledge of a large number of conditions and exceptions to be applied in determining whether an item should or should not be coded and requires some knowledge of examining processes. The coding clerk must code from numerous documents and papers used in the claims process and is responsible for recognizing inconsistent or incorrect payment items as a result of an examination of the combined benefit payment data.

Degree 5. -- This degree is rarely found in these positions since full performance, meaning that the coding clerk can maintain a reasonable rate of accurate production, rarely requires more than 1 year of training for the coding clerk to have dealt with a sufficient proportion of the total possible variety of cases to maintain this production. An example of a position that meets this degree is that of a coding clerk who is responsible for coding medical data on records of treatment or other medical care. The coding clerk must be able to pick out, from several operations, the most related operation to a given disease; must be able to relate an operation to

the proper diagnoses for records having multi-diagnoses; in coding death records, must be able to identify the direct, underlying, antecedent, and contributory cause of death; in cases where more than one anatomical location is indicated, must be able to decide which is most representative; must be able to select residual disabilities from the reported information and relate them to the coded diagnoses; for injuries, must be able to identify the causative agent and relate it to the injury.

Element B. -- Nature and volume of available guidelines and instructions

This element refers to coding manuals giving coding rules, principles, and precedents, to reference books used regularly in the coding process, and also to other reference sources used to solve unusual coding problems.

Degree 4. -- In the Coding Series, this degree is found in some positions requiring subject-matter or substantive knowledge where the coding clerk regularly is responsible for coding items requiring an extensive search to locate precedents to be used as guidelines and for selecting the most appropriate precedent. For example, coding clerks responsible for coding cause of death are required to have subject-matter knowledge and must use a large number of instructions and precedents in order to determine which, of causes reported on the death certificate, is the underlying cause. They must determine what precedent sets forth the proper principle to be applied in each problem case.

Degree 5. -- This degree is not usually found in these positions, because the guides and precedents for coding are generally specific and detailed, and do not require greater selection and interpretation than that called for at Degree 4. Note that work on "special projects" set up by the supervisor for various purposes, such as coding for special studies or testing new coding instructions, does not in itself warrant this degree. Some coding clerks responsible for assigning industry codes, who use a large assortment of reference books on a regular basis, along with instructions and guides in selecting the proper codes, meet this degree. They make recommendations in writing for the establishment of new codes for cases which cannot be given an existing code.

Element C. -- Subject-matter and procedural knowledges required

As applied to the higher degrees, this element refers to subject-matter or substantive knowledge required of coding clerks in order to apply instructions in coding manuals and use reference books properly.

Degree 4. -- In the Coding Series, positions at this degree are generally those requiring knowledge of a subject-matter area, such as an area in the field of business and industry or medicine, and usually involve use of specialized terminology or of a body of principles and concepts. For example, some positions responsible for coding industrial classification for businesses meet this degree. Coding clerks in these positions must acquire a diversified knowledge of industrial activities and a good knowledge of the structure of the industrial classification system. They must have such knowledge as when the manufacturing of a product is to be classified on the basis of type of operation as differentiated from end product or from end

use of such product, when a given activity is classified as a service or a trade, etc. Their subject-matter background must be such as to enable them to use a wide variety of reference books on business and industry on a regular basis.

Degree 5. -- This degree is found in a few coding positions. It refers to the knowledge and understanding of the subject matter being coded that would enable the coding clerk to understand and use technical terminology and to make special requests for technical textbooks and other technical reference sources on the subject which are needed regularly, in addition to coding manuals or instructions, as adjunct directives in the coding process. For example, some positions responsible for coding diseases and causes of death meet this degree. They require a general knowledge of anatomy; knowledge of the nomenclature of diseases, the established causal relationships of diseases, the relationship between causes of death and the age and sex of the decedent, the rules and methods used in selecting the primary cause of death; and the ability to distinguish between a pathological sequence and a sequence for chronological order only. Coding clerks in positions that meet this degree request current textbooks and technical reports relating to the information they are coding from the library on a regular basis, in order to keep up with the latest information needed for coding. They must keep abreast of the types of publications available in order to make requests. They frequently code cases that are precedent setting in consultation with appropriate subject-matter experts, statisticians, etc., and may be required to draft instructions applicable to these cases for approval and incorporation into the coding manual.

Element D. -- Complexity of the clerical assignment

This element refers to the steps taken to complete a coding assignment. Some coding clerks take only one step, namely, coding the information from a report, paper, or document. The coding of each item is not considered to be a separate step. Others take several steps, such as reviewing papers for completeness and consistency, contacting the source of information if deemed necessary, and coding the information.

Degree 3. -- This is the highest degree of this element typically found in positions in the Coding Series, since most coding assignments involve no more than a few clerical steps or processes. Though this is the lowest degree of this element assigned to positions requiring substantive subject-matter knowledge, positions at the higher grade levels may sometimes rate higher than Degree 3, although few positions that do not require subject-matter or substantive knowledge reach Degree 3. An example of a position that meets this degree is that of a coding clerk who is responsible for assigning industry codes to businesses on the basis of reports submitted by employers. The industry classification and related information constituting a number of items may be coded onto one or several transcription slips or tabulating cards. Subject-matter knowledge is required in order to code and the coding clerk must use numerous instructions, precedents, and reference books. Reviewing the information to be coded, searching for precedents and background material in reference books, and coding the information on one or more tabulating cards constitute several clerical steps. The coding of each item and use of more than one tabulating card are not considered to be separate steps.

Element E. -- Use of judgment and discretion in selecting a course of action

This element refers to the judgment which must be used in applying the coding instructions to the information to be coded. Judgment is required in situations where the instructions and the information to be coded are not expressed in the same terms and several instructions are applicable; in situations where the coding clerk must determine to what degree of refinement it is appropriate to code the items; and in other similar coding situations.

Degree 3. -- This is frequently the highest degree of this element found in positions in the Coding Series. Some positions responsible for coding experience data for individuals, which effect changes to previously coded skills, meet this degree. The coding clerk determines the highest skill and quality levels in an individual's experience, combining or dropping previously coded data of similar or lower levels, and codes to reflect the highest experience level that will provide the greatest promotional opportunity. This coded data makes it possible to locate individuals with specific skills or experience.

Degree 4. -- This degree is found in some coding positions requiring substantive subject-matter knowledge, where a high degree of judgment is needed to select the most appropriate code from a number of possibilities when coding instructions do not cover the information to be coded in a specific manner. A level higher than Degree 4 is rarely found in coding positions. An example of a position that meets this degree is that of a coding clerk who is responsible for coding x-rays, clinical photographs, drawings, etc., according to anatomical site and diagnoses, from clinical records, laboratory or x-ray reports, autopsy protocols, etc., which are attached to the x-ray, photograph, or drawing. The coding clerk exercises judgment in assigning the appropriate anatomical site and diagnosis selected from these attached medical records.