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Workforce Compensation and Performance Service

Theodore Roosevelt Building 1900 E Street, NW Washington, DC 20415-8330 Classification Programs Division

Economist

GS-0110

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SERIES DEFINITION

This series includes positions that require application of a professional knowledge of economics in the performance of duties that include: research into economic phenomena, analysis of economic data, and the preparation of interpretive reports; advice and consultation on economic matters to governmental officials and private organizations or citizens; and the performance of other professional work in economics including supervision and the direction of economists engaged in the various economics programs of the Federal Government.

With the publication of this new standard for the Economist Series, GS-0110, the following series are abolished and the printed standards are rescinded:

GS-0110, General Economics Series (no printed standard).

GS-0111, Business Economics Series, issued in March 1953.

GS-0112, International Trade and Development Economics Series, issued under the code P-172-0 in May 1949.

GS-0113, Fiscal and Financial Economics Series, issued under the code P-128-0 in October 1948.

GS-0115, Transportation Economics Series, issued under the code P-198-0 in November 1948.

GS-0116, Labor Economics Series, issued under the code P-174-0 in January 1948.

GS-0117, Agricultural Economics Series, issued under the code P-110-0 in September 1948 and amended in November 1948.

Also, the fly sheet for the GS-0118, Forest Economics Series, issued in December 1957, has served its purpose and should be removed.

GENERAL STATEMENT

Economics is classically defined as "the science of the laws and conditions which affect the production, distribution, and consumption of wealth." Within so complex a society as ours, however, this classical definition often seems to become lost in the variety of efforts which absorb the attention of economists. Nearly every facet of modern life has an economic implication. Our economic "wealth" is not only the raw materials of our mines and forests and farms, but also our water and oil supplies, our power potentials, the whole fabric of our industrial and agricultural organization, our individual and collective skills, and our capacity for work; our "production" includes not only the gathering, growing and fabrication of every single thing we have in the whole of our civilization, but also the myriad of services we provide for one another; "distribution" means not only the physical transporting of things from where they are produced to where they are used, but the entire pattern of how and why all of the goods and services we have are divided among us; and "consumption" means not only what we eat and wear out as individuals, but the using up of

resources within the processes of production (e.g., iron ore is "consumed" by steel mills; steel is used up in the manufacture of farm machinery which, in turn, is worn out in the production of food and fiber).

During the centuries of our history, society has developed a vast array of institutions to handle these economic activities. These institutions include, for example, the concept of a common medium of exchange -- money -- and the attendant complicated machinery of banking and credit, and the equally vast complexities of marketing, industrial relations or governmental agricultural policy, among others.

The earliest economists were social philosophers who observed and attempted to understand and explain the most obvious social phenomena around them (say, poverty) in much the same way that the earliest scientists made gross observations about the physical or biological world. Today, the tools made possible by developing statistical theory allow the modern economist vastly larger and more accurate observations, and these in turn have allowed him to develop far greater insight into and understanding of the complex interrelationships of economic activity. In a way, the development of modern statistics has done for the economist what the development of the microscope has done for the biologist. It has not only allowed him to "see" more of the working of economic phenomena, but to quantify and measure his observations with fair precision, to test his hypotheses, and to discover laws of cause and effect within Man's society which are subject to rigorous discipline.

Economists in the Federal Government contribute to some of the most fundamental processes of Government, as follows:

1. One of the important provinces of Government is to gather and record information about the society being governed, and many Government economic programs are designed to do just this. The economists so employed collect, analyze, interpret, and publish a tremendous array of economic information -- data which serve both contemporary and future scholars as "observations of economic phenomena."

2. Frequently, Government decisions on seemingly non-economic problems have economic connotations. (For example: Shall public land be used for the grazing of cattle, thus increasing our food supplies, or developed as a park to help meet our growing recreation needs? Should a highway pattern include an expressway between two major cities? Should the river be controlled by one high dam, or by a series of low dams? What are the economic costs and gains to be expected from a change in a prison policy, a public works project, a school program?) Economists are used in a variety of such programs to provide interpretive information and to advise and counsel officials charged with responsibility for such decisions.

3. The planning of Government policy and the drafting of proposed legislation to meet the problems of our times, current and anticipated, require economic knowledge and understanding. From tax structures to foreign policy, from national defense budgets to agricultural surpluses, Government economists are directly concerned with major national and international issues. Research done in such an environment is inclined to be less a seeking of knowledge for knowledge's sake, than a pragmatic search for information to solve real and immediate problems.

Economist positions distinguished from other positions

The relationship of professional work in economics to the function and activity of other professional and managerial fields presents special classification problems. On the one hand, the skills, techniques and methodology of such professions as mathematics or statistics are not only essential to economic "observations" (data gathering, quantification, etc.) but also offer perspectives important to valid economic analysis and interpretation. On the other hand, the results of professional economics effort are knowledge, insight and understanding of social phenomena, and, in Government, such information typically is gathered for use in decision-making in a wide variety of fields. The result is that in the Federal service economist positions are often hard to distinguish from related professional fields of work.

In general, the rule is that the requirements for the specific knowledges and skills which determine the grade should guide the series determination, and when such requirements are equally balanced between differing occupational series, procedures for interdisciplinary positions should apply. However, such decisions should be made within the framework of the entire occupational situation and not based upon brief or short-range assignment patterns. Organizational structure, working relationships, career development patterns, and management attitudes and objectives may have a bearing on final determinations in doubtful areas.

In line with the foregoing general guide, then, the following types of work are specifically *excluded* from this series:

1. Professional work in basic mathematical principles, methods, procedures, or relationships, or in the development and application of mathematical methods for the investigation and the numerical analysis and solution of problems where the controlling considerations are the exactitude of the relationships stated, the rigor and economy of mathematical operations performed, and the logical necessity of the results. Such work should be classified in the Mathematics Series, GS-1520.

   (*Note:* The specialized field of Econometrics which brings the discipline and efficiency of mathematical methods to the analysis of economic problems is, however, specifically *included* in the Economist Series, GS-0110.)

2. Work requiring the design, development and adaptation of mathematical methods and techniques to statistical processes, or research in basic theories and science of statistics. Positions involving such work should be classified in the Mathematical Statistician Series, GS-1529.

3. Work or consultation which primarily involves the application of statistical theories, techniques and methods to the gathering and/or interpretation of quantified information. Positions in which the grade-controlling considerations involve knowledge and use of statistical theory and techniques, and responsibility for the selection, adaption and use of proper statistical methods of analysis and presentation, should be classified in the Statistician Series, GS-1530.

   (*Note:* For further discussion of the occupational relationship between Economists and Statisticians see the classification standard for the Statistician Series, GS-1530.)

4. Work on the design, development, installation, operation, or inspection of accounting systems; the prescription of accounting requirements; or the examination, analysis and interpretation of accounting data. Positions involving such work should be classified in the Accounting Series, GS-0510.

5. Work involving support functions which require some technical knowledge and skill related to economics activity, but do not require an academic background in economics or professional competence in economic theories, principles, and concepts, should be classified in the Economics Assistant Series, GS-0119.

6. Work which involves the use of economic facts in the administrative or decision-making functions of non-economic fields, rather than the development, analysis and interpretation, of economic information. Just as it is possible, for example, to understand and apply historical or biological facts without being an historian or a biologist, so one may use economic information without being an economist. The measure of a professional economist position, however, is that, within the discipline of formal methodology, economic facts are being established, validated and interpreted. The following list is illustrative of occupational series where positions may involve the *use* of economic information. Such positions are excluded from this series: GS-0020, Urban Planning Series; GS-0101, Social Science Series; GS-0130, Foreign Affairs Series; GS-0150, Geography Series; GS-0460, Forestry Series; GS-0820, Highway Engineering Series; GS-0850, Electrical Engineering Series; GS-1140, Business Analyst Series; GS-1146, Agricultural Marketing Series; and GS-1150, Industrial Specialist Series.

SPECIALIZATION AND TITLING PATTERN

The profession of Economics is divided by three major specialization patterns which might be designated as macro-economics, micro-economics, and economic methodology. Macro-economics is concerned with economic aggregates (e.g., national figures, world totals, etc.) and their implication on *the economy* as a whole. Specialization follows the distinctions between fundamental economic factors, i.e., land, labor, capital, etc. Micro-economics is concerned with *the economics* of particular cultural institutions and their subdivisions, that is, with the interrelationship of all economic factors with regard to a particular human endeavor. Thus, we find, for example, specialists in the economics of particular industries (e.g., steel, cotton, air transportation, electric power), particular services (medicine, public roads, etc.), and even particular enterprises (e.g., those who apply economic principles and theories to the operation of a single firm).

Cutting across these distinctions are the specializations by method: mathematics, statistics, empiricism, etc. Whereas all economists may use any suitable method of observation, analysis, and interpretation, certain techniques require intensive knowledge and training, and such additional preparation often leads to methodological specialization. An example of this type of specialization is found in the field of econometrics which is concerned with formulating economic theories in mathematical terms in such a way that theories can be tested statistically and used to explain and project economic trends and tendencies.

(These procedures require a word of explanation: The econometrician first constructs a mathematical model -- a set of equations intended to represent various economic units. He then gathers data and applies his equations to observed economic behavior. He modifies his original

equations by adding or deleting explanatory variables until the model provides an adequate (although highly simplified) representation of the economic behavior involved. The model may then be used for analysis of the past, for forecasting of the future or for the understanding and interpretation of structural changes within the economy.)

These major specialization patterns within the profession of economics as a whole are generally indicative of the patterns found in Government as well. In the Federal service, however, these patterns have been altered somewhat -- first, by the organizational structure of the Executive Branch and, second, by the tendency of legislation bearing on economic matters to relate to particular subjects. The distinctions between micro- and macro-economics and between types of methodology become subordinate to the subject-matter area of the economics activity.

The specializations provided in this standard are based upon differences in qualifications required by the various types of positions found in the Federal service, and take into account the traditional subdivisions of the field, the existence of large numbers of positions in particular specializations, and the organization of economic activities within Federal agencies. Inasmuch as the specializations are broad and encompass many restricted and highly specialized subject areas, selective certification may be necessary in filling positions involving narrow aspects of such fields. In such cases, however, the use of the major specialization title is mandatory.

Economist positions in the Federal service may be classified into the following specializations:

Economist

Financial Economist

Labor Economist

Regional Economist

Industry Economist

International Economist

Agricultural Economist

Specializations beyond those identified above will not be used as part of official class titles. However, if the needs of the organization make it desirable to reflect a more specific specialization as, for example, a specific region or specific industry, such specialty may be shown in an organizational title. (See Introduction to the Position Classification Standards.) Detailed discussion of the types of positions covered by each specialization is included in the following paragraphs:

Economist. -- This specialization includes (1) positions which analyze and interpret relationships incorporating economic factors which cut across all sectors of the economy, (2) positions which specialize in methodology, (3) positions which are not appropriately classifiable to any other specialization in this series, and (4) all positions at the GS-5 and GS-7 levels. Positions in this

specialization may be characterized by a variety of assignment patterns. Several of these are discussed below:

Some economists in the upper grade levels apply the broadest economic concepts in analyzing and interpreting relationships among the forces within the economy. Their considerations incorporate all economic factors, their data sources cut across all sectors of the economy, and their findings provide fundamental information on the operation and direction of the economy. Typically, such positions are on the staffs of the major policy makers in Government, where they provide counsel on the economic implications of all types of Government action. They contribute to the development of proposed legislation and to policy determinations involving economic knowledge and provide interpretations of economic significance in public events of various kinds. Theirs is a function of distilling and synthesizing economic information for use in the important decisions of Government. Therefore, both their responsibility and their influence can be exceedingly great. The career patterns of economists in such assignments may include experience in any of the specializations in this occupation. The classification decision to identify a position with this specialization is not based on what the economist has done in the past, but rather on the nature of his current responsibility and the breadth of his present interest.

At all grade levels there are economists who analyze, interpret, synthesize, and project the movements and relationships among the many forces playing upon the economy. Typically, such economists use secondary sources and depend on their colleagues in the various branches of economics to collect and distill primary data. Frequently (though not necessarily), their work results in publication, sometimes in the "learned paper" tradition, but more typically in regular periodic publications of the Government.

Economists who specialize in methodology are also included in this specialization when the required knowledge of particular economic specializations is incidental to the skill and training necessary to the technique. For example, an economist skilled in statistical methods might serve in a staff capacity in setting up or reviewing plans for data-gathering surveys in a variety of subject-matter areas which involve several of the specializations provided in this standard. Similarly, an econometrician might be required to develop models for the analysis of economic behavior in a variety of situations.

(*Note:* When such specialists are assigned in an organization concerned with one type of economic investigation only, familiarity with the data and understanding of subtle peculiarities in the relationships add to his value in the assignment. In such circumstances, classification within the appropriate subject specialization is more accurate.)

The title *Economist* with no modifier is also used for all economist positions at the GS-5 and GS-7 grade levels where the requirements are for broad educational backgrounds in economics rather than for any detailed knowledge or skill in a particular specialization.

Finally, this specialization is appropriate for those economist positions which include work in two or more specializations when no one specialization predominates or those positions which are not appropriately classifiable to any other specialization established for this series.

Financial Economist. -- This specialization is intended to cover economist positions that require specialized knowledge of a large body of economic theory and principles related to money. Financial economics is concerned primarily with what might be described as "economic machinery" -- with money and money markets, credit instruments and systems, banking processes and institutions, capitalization, investment, Government taxing, borrowing and spending. The basic questions of the field relate to how financing activities are affected by various other economic phenomena and how other economic phenomena are affected by manipulation or changes in financial activities. Financial economists in the Federal service are characteristically concerned with providing technical information and interpretation on what has happened, anticipating what is likely to happen, and making recommendations as to what should be done with respect to the economic machinery.

Although economist positions involved with any of the broad areas and concerns of financial economics are to be classified in this specialization, assignment patterns are frequently related to various aspects of public finance. For example, financial economists specializing in budgetary analysis study the various programs of the Government (national defense, social security, education, etc.) in relation to economic trends and make recommendations on economic policy for such programs. Such specialists also develop supporting data and prepare drafts of the annual budget message and of periodic budgetary reviews.

Some financial economists specialize in public debt management, involving analysis and interpretation of data and recommendations on policy decisions related to the public debt. Such specialists may, for example, study the impact of changes in the amount, character and distribution of the public debt for its implications on credit conditions, interest rates, or the level and distribution of income, or analyze the relationships of public debt securities to the requirements of various classes of investors.

A third type of financial economist specializes in Government revenue and taxation. Such assignments involve the analysis and interpretation of a variety of economic information for purposes of estimating Government revenues, estimating the economic effects of various tax plans, providing detailed knowledge of the distribution and implications of the tax burden, and developing proposals for changes in tax structures.

Financial economists also make studies, analyze data, develop policies, and provide professional advice on the economics of money, banking, credit, investments and securities as they relate to particular problems or responsibilities of the Federal Government. For example, Government responsibility in connection with the supervision of banks and other financial institutions requires knowledge and evaluation of their financial status, the effect of their operation on credit conditions and on the economy, generally.

(See discussion of dual specialization under the International Economist option for classification determinations related to financial economists engaged in the international aspects of monetary and banking problems; exchange rates, stabilization, and control; capital movement; balance of payments; foreign loans and international financial agreements.)

Labor Economist. -- This specialization covers economist positions that require specialized knowledge of the economic theory and principles which treat of the role of labor in the economic

process. Labor economics is concerned with the demand, supply, use, and remuneration of labor as a factor of production.

There are two aspects of the field of labor economics. The first is concerned with the operation of the labor market, that is, with the economics of the supply and demand for labor, and the conditions which reflect the actions of these forces: employment and unemployment, labor turnover, wage trends, income distribution, etc. The second aspect is concerned with the institutional arrangements that condition the impact of business, trade unionism and Government on the labor market, that is, with the rules, practices and laws which regulate the conditions of work and with the machinery for collective bargaining between employee groups, employers, Government, etc.

The problems which influence assignment patterns of labor economics in the Federal service may be grouped into four primary subject areas: wages, incomes, or earnings; employment and unemployment; working conditions; and industrial relations. These subject-matter fields are not discrete but tend to shade into one another.

Labor economists specializing in wages, incomes, and earnings, for example, collect, analyze and interpret information on wage structures, wage relationships, wage patterns, and trends. They develop and maintain data on the occupational composition of the work force, construct wage rate indexes and study employer practices on hours of work, overtime pay, shift differentials, and the whole range of supplementary wage benefits. Based on analysis and interpretation of such data, they make recommendations for wage policy and legislation and provide evaluations of the implication of such policy or legislation on wages as well as the effect of wage levels and trends on economic development.

In connection with employment, labor economists collect and analyze data on the level and trend of employment and unemployment, on factors affecting the demands for and supply of labor, labor turnover and changing labor market conditions. They study changes in the size and composition of the working population and make projections related to labor force growth. They make estimates of employment and unemployment, study current economic developments particularly for their effects on employment, and evaluate the effect of changes in labor market conditions on the national economy.

They study the functioning of the labor market for defects in its organization and imbalances in its operation so that remedial actions may be instituted to reduce its deficiencies. Such studies include the channels used by job seekers in obtaining jobs and employers in obtaining workers, the mobility of the labor force, and the employment problems and participation of older workers and youth in the job market.

Labor economists concerned with working conditions collect and analyze data on the effects of the length of daily and weekly working hours and other working conditions (e.g., night work, shift rotation, weight lifting, safety clothing, meal and rest periods, industrial hygiene, etc.) on the efficiency and well-being of workers as measured in terms of changes in production, spoilage, work stoppages, labor turnover, injuries, illnesses, or absenteeism.

In the field of industrial relations, labor economists are primarily concerned with the complex of institutional arrangements that govern relationships between workers and employers, and with the

dynamic forces that produce alterations in these arrangements. Their work involves the analysis of collective bargaining agreements and of developments in collective bargaining; the structure and machinery of labor-management relations; the structure and functions of trade unionism as an institution; the incidence of and the issues involved in work stoppages; the role of mediation, arbitration, and other devices in the prevention and settlement of strikes; the impact of industrial disputes on the economy; and related matters affecting the labor-management relationship.

Regional Economist. -- Economist positions in this specialization are concerned with the economy of a particular region. The region assignment may be a political division such as a city, county, state or nation; it may be a geographical region such as a river valley or coastal area; or it may be an economic area, for example, a metropolitan area, an "urban-rural" complex such as Appalachia or the common market countries. The region of assignment may be either domestic or foreign. (A full discussion of the relationship between the Regional and International specializations is contained in the discussion of the International specialization.)

Regional economists are particularly concerned with the area dimension which is often not a factor in conventional economic analysis. Oriented toward analysis of regional economic development they may be assisted in their tasks by urban and rural sociologists, geographers or other specialists whose fields also contain this area dimension.

Regional economists are highly informed specialists on all factors bearing on the economics of the region of assignment -- not only economic factors, but all of the non-economic conditions which affect the economy as well. These non-economic factors may be cultural, geographic, historical, sociological or other types of conditions. The understanding and assessment of such contributing factors involve specific knowledge not usually required of professional economists, and may influence the specific qualifications required for individual positions within this specialization.

The economic problems encountered by incumbents in positions in this specialization vary with the type of region assigned. For example, the statistical data available on economic conditions in a highly developed region is typically both voluminous and complicated, requiring considerable facility with the economist's most sophisticated tools of analysis. On the other hand, the extreme scarcity of meaningful or dependable data on the economies of some of the underdeveloped regions places severe handicaps on economists trying to understand and evaluate these areas. Some regions present still another type of specialized complexity involving, for example, labor mobility, location of manufacturing plants, availability of housing, shifts in agriculture and extractive industries, depressed areas or lagging industrial sectors, future growth potential of specific areas, resource use and needs, and impact of governmental action on local economic activity.

In any assignment area, pertinent economic factors may involve analysis of raw materials, land productivity, power capacity and potential, transportation facilities, capitalization, production potentials, trade patterns and institutions, population (both as a work force and as a consumer factor), or any other condition bearing on the economic life of the region of assignment.

Specific analytical techniques used may include flow-of-funds analysis, input-output studies and various demographic techniques. The development of impact or parametric models and projections of growth and change are characteristic. Much of the data used comes from existing governmental statistical sources, but new small area data need to be developed and the economists involved in

regional research programs are vitally interested in helping to develop these new data in the most efficient and lasting way.

Industry Economist. -- This specialization includes the study and analysis of the production, distribution and consumption of particular commodities or services; of the organization, capitalization, markets, and other economic conditions affecting the industries which produce these commodities or services; or the interrelationship between the forces of the economy as a whole and *the economics* of a particular industry.

Assignments of industry economists characteristically concentrate in a particular industry or a group of related industries, such as, for example, textiles, apparel, leather, steel, organic chemicals, housing, electric power, railroads, air transportation. Economist positions of this type are typically located in organizations where the breakdown has been established according to a grouping of related commodities. This organizational grouping is determined according to the nature and purpose of programs currently in operation. Although the industry of assignment is occasionally indicated following the specialization title in some agencies, this practice is for organizational purposes and administrative convenience. The use of the specialization title, Industry Economist, is mandatory and subspecialization designations are not part of the official class title. Positions concerned with food, fiber and other commodities produced by the so-called "agricultural industries" should be classified in the Agricultural Economist specialization.

The industry economist is concerned with all factors bearing on the economics of the industry of assignment: sources and supply of raw materials, methods of manufacture, availability of labor force, capital funds, machine tools, transportation or power, nature of the demand, sales methods, or any other condition or institution affecting the production, distribution, or consumption of the commodity. Most of these factors involve other facets of the economy and the industry economist must be aware of these implications and be able to relate economic facts from other sectors of the economy to his industry of assignment.

Examples of the type of study which may concern an industry economist will illustrate the variety of problems which characterize this specialization: studies on the movement of products from producing districts to consuming areas; surveys of the size and characteristics of the consumer market; data on the uses of the industry product, the price fluctuations, production and/or distribution costs; studies on marketing patterns, manpower, capitalization, technological improvements, etc.

International Economist. -- This specialization is provided for economist positions concerned primarily with the study of the interplay of economic forces between and among the nations of the world. These economic forces include movement across national borders (1) of goods and services (i.e., international trade); (2) of people -- both consumers and labor; (3) of money; and (4) of ideas, particularly technological ideas but including also social, cultural, or political ideas when pertinent to economic activity.

International economists are concerned with the facts related to these international movements of economic forces, that is, with statistics and factual data on the extent, volume, frequency, nature, distribution, etc., of such movements; they must understand and evaluate the variety of factors and institutions affecting these international economic movements, factors such as national tariffs,

national and international law, transportation systems, climatic conditions, geographic, historic or cultural considerations, etc.; and they must anticipate and interpret the implications and trends in such economic activity, measuring the interrelated effect of these forces.

Care should be taken in using this specialization to be sure that the work involves knowledge, understanding, analysis and interpretation of the *movements of these economic forces across national borders,* and not merely a foreign setting or locale for one of the other specializations. Every economic specialization provided in this standard may have an important international application. We may have a position concerned with the economics of labor markets in a particular foreign country, for example, or a financial economist position which specializes in international banking problems. Regional economics very often involves regions outside the boundaries of our country and an industry economics assignment frequently has some international aspects either at the production or at the consumption level. Although these international considerations are frequently of significant importance in such economist positions, orderly personnel processes are better served by classification to the major field first.

Agricultural Economist. -- This specialization is provided for economist positions that require specialized knowledge of the economic principles and the economic institutions which control the production, distribution, and consumption of food and fibers. Agricultural economics is concerned with the interplay of economic forces within this institutional framework.

The agricultural economists are concerned not only with matters of supply and demand, costs of production and transportation of agricultural commodities, etc., they are also concerned with the basic institutions (established practices, formalized customs, the body of law and mores, social habits and attitudes) which underlie and govern the production and distribution of agricultural commodities and the economic health of agriculture as a major segment of our economy. Within this century these institutions, and the economic position and role of the farmer, have been profoundly affected by technological developments. Agricultural economists are therefore faced not only with the problem of understanding and explaining these shifting forces, but with the further responsibility of anticipating their direction, assessing their impact on agriculture as a major segment of our society, and providing the information which is basic to policy determinations in this area.

Although, as in other specializations in this occupation, assignments in the lower grades may be limited to particular phases of economic investigation and analysis, all professional agricultural economic positions function within the conceptual framework outlined above. The unique requirement of positions properly classified in this specialization is professional knowledge of both economic principles and the *economic institutions* of agriculture. When job requirements include professional knowledge of agricultural techniques, care should be taken to be sure the position is in fact that of a professional agricultural economist.

SUPERVISORY POSITIONS

Although supervisory economist positions are included in this series no grade-level criteria for supervisory responsibility are provided in this standard. When supervisory duties and responsibilities constitute a substantial part of an economist position and are of such significance as to require supervisory qualifications, these responsibilities should be evaluated with reference to the appropriate supervisory grade evaluation guide.

FUNCTIONAL PATTERNS AND GRADE-LEVEL DISTINCTIONS

The three basic functions which characterize professional economist positions are research and analysis, program planning and administration, and consultant and advisory activities.

Economic research and analysis involve the systematic collection, analysis, and interpretation of economic data and the presentation of economic knowledge in usable form. Basic procedures follow classical research methodology: first, the orderly statement of the problem and of an hypothesis, then the testing of the hypothesis by application of observed facts (usually economic statistical data), and finally, the interpretation and presentation of the findings. Although in programs involving very large data-gathering operations, assignments in the lower levels may tend to relate to specific procedural steps, this classical procedure can be discerned at program planning and direction levels. The research function may be found in professional economist positions at any grade level. Distinctions between levels are related to the size and complexity of research assignments, the extent of the technical responsibility for the findings, and the character and amount of direction and assistance received through supervision and established guidelines.

Program planning and administration functions (as distinguished from supervisory responsibilities) frequently occur in economist positions above the GS-11 grade level. Criteria for determining grade levels for program planning and administration functions involve, first, the size, scope, and multiplicity of the program, and second, the finality of the technical and administrative decisions being made.

Consultant and advisory activities, which involve recommendations on policy or administrative decisions based on technical economics knowledge, are usually found in positions at the higher grade levels. Considerations used in distinguishing between grade levels for this function relate to the extent to which advice and recommendations are regarded as final and authoritative, the complexity of the subject-matter area, and the importance of the actions or decisions for which the information or advice is used, i.e., the level of the policy decisions, the scope of the proposed legislative action or the implications of the administrative decisions.

Method for determining grade levels

The grade levels of economist positions vary with the relative differences in the conditions discussed under each of the functional patterns described above. These variations may be measured in positions involving the independent performance of professional economics work by reference to the five following factors which affect the values of all economist positions:

Scope of assignment. -- Not only do economics studies and economics programs vary in size and scope, but when large programs are broken down into individual assignments, these assignment segments can also vary widely as to size and scope.

Technical complexities. -- Variations in this factor relate to the degree of creativity and imagination necessary, the number of relationships and the subtlety of the variables involved, the adequacy of established methods and techniques, and the availability of data.

Technical responsibility. -- This factor covers the degree to which the incumbent of a position is held accountable for such functions as the statement of the economic problem and the development of an hypothesis; for the effectiveness of the planning, the accuracy of the economic facts, and the adequacy of the economic analysis; and finally for the validity of the economic interpretations, and the significance of the research findings.

Administration responsibility. -- Variations in this factor relate to the extent of the incumbent's responsibility for the allocation of agency resources reflected in decisions concerned with the selection of economic studies, data sources including primary sources, techniques for data processing and analysis, and methods of presentation of findings.

Policy responsibility. -- This factor covers the extent to which advice and consultation of the economist may affect Government action relative to the economy of the nation, a large sector of the population, an important segment of the national budget, an important non-economic policy of the Government (such as national defense or foreign relations) or other matters of such importance.

Qualifications required. -- Although not included in a separate statement at each grade level, variations in the qualifications requirements for economists at each grade are reflected in the statements covering technical complexity and the three responsibility factors.

ECONOMIST, GS-0110-05

Scope of assignment

A typical on-the-job training situation is characteristic of economist positions at this level. Assignments cover miscellaneous duties related to problems assigned to higher-graded economists. Such assignments provide training and practice in the methods, techniques, and data sources of a particular economic specialization. Many duties (such as the routine preparation for statistical surveys, the tabulation and processing of data, the routine posting from secondary sources, the preparation of simple charts, tables, etc.) may be similar to those done by clerical or nonprofessional technical workers. The distinguishing characteristic for professional economist positions lies in the *pattern* of assignment which is arranged to provide a variety of training and experience and to encourage the professional growth and development of the incumbent.

Technical complexity

Although the technical complexity of the program may be very great, assignments at this level are broken down into simple steps. The greatest technical demand is that the trainee-economist learn to relate the functions assigned to him to the broader aspects of the program.

Responsibility

Economists at the GS-5 level are expected to learn the procedures, master basic techniques, and develop an understanding of agency objectives and policy so that they may advance to more complex assignments and assume greater responsibilities.

ECONOMIST, GS-0110-07

Scope of assignment

GS-7 economist positions typically involve an advanced on-the-job training situation. Assignments characteristically are small unified segments of projects assigned to higher-graded economists, or consist of specified duties in a continuing program. These assignments, which are normally organized in such a manner as to provide the incumbent experience and increased familiarity with the work of the organization, may include such duties as: the development of the detailed plans for a study according to established specifications and precedent; the collection and compilation of data from primary or secondary sources following detailed and exact procedures and regulations; the preparation of preliminary interpretive reports, or portions of such reports, following precise instructions.

The following are examples of the type of assignments which might characteristically be given to GS-7 economists:

1. Visit a specified list of business firms to collect detailed economic information, such as wage data or production figures, according to procedures and instructions which, although administratively exact, still require judgment in comparability determinations, recognition of data peculiarities, and similar technical evaluations.

2. Analyze and interpret factual economic statistics and draft simple press releases explaining findings.

3. Compile and place in an orderly arrangement specified economic information from a variety of indicated and readily available sources, making rough preliminary analysis according to precise instructions.

Technical complexity

Procedures covering assigned program segments may be fairly involved and include techniques of some complexity such as difficult calculations or exact comparability determinations. The greatest technical demand is a continuing requirement to learn both the method and purpose of the agency research effort and to master techniques, to become familiar with data sources and relationships, and to relate the immediate assignment to broad program needs.

Responsibility

GS-7 economists are expected to continue the learning process toward greater personal proficiency. In addition, they are held accountable for accuracy in following complex instructions and for developing initiative in following procedures without step-by-step guidance.

ECONOMIST, GS-0110-09

Scope of assignment

Assignments are typically clearly defined segments of larger projects. They may be part of a recurring or continuing program of economic data gathering, analysis, and interpretation, or they may be units of a special research project assigned to a higher-graded economist. Characteristically, assignments are so organized that objectives are limited and stated precisely and results are integrated into the larger framework of the program as a whole. Such assignments normally require the setting up and carrying out of working procedures, the use of a variety of established methods, and the preparation of preliminary reports according to established procedures. They do *not* involve responsibility for the statement of the problem, the sequencing or planning of research steps, or the selection or development of research techniques. They do, however, involve responsibility for understanding and following the design and techniques of study which have been given.

The following are typical of the tasks and assignments undertaken by economists at the GS-9 level:

1. Perform several, or all, of the steps necessary to a project for collecting economic data (employment statistics, for example, or marketing data) from primary sources such as the records of business firms. Such a study may be assigned to a GS-9 economist after the planning has been completed, if the procedures are exact and well defined, if precedents for adjusting to unexpected events (sample substitution, for example) are well established, and if supervisory assistance is readily available. Individual steps of such a project, if assigned one at a time under close supervision, would be more characteristic of the GS-7 level.

2. Be responsible for the work of a small organizational unit where economic statistical data are being processed and where statistical schedules are being edited for technical reasonableness. In such a situation, work must be done according to exacting, but clearly stated standards and the GS-9 economist so assigned is held accountable for judgment in the application of such criteria.

3. Parts, or all, of the work necessary to the analysis or interpretive-report examples shown at the GS-11 level (examples number 2 and 3) might be assigned to a GS-9 economist after the research plan was completed, the procedures carefully developed, and the sequencing of each step of the project well worked out. In such a case, supervisory assistance, instruction and training would be readily available. Such work might also be assigned a GS-9 economist if the project were routine and similar to work done regularly in the organizational unit so that procedures were well established and familiar and unexpected problems were not anticipated.

Technical complexity

Although the methods used are usually covered by procedures, the techniques necessary in following procedures may be fairly complex. Some adaptation of established procedures, the recognition of significance in variations from expected results, and interpretation of limited findings in terms of the major project are typical of economist positions at this level. The number of variables involved and subtlety of relationships tend to be somewhat limited.

Technical responsibility

Economists at this level are responsible not only for exactitude in following procedures and precision in using techniques, and for the accuracy of information presented, but also for use of professional judgment necessary to insure conformity with the technical intent of the research plan.

Administrative and policy responsibility

Positions at this level do not typically involve responsibility of this nature.

ECONOMIST, GS-0110-11

Assignments at grade GS-11 are characteristic of the first level of independent professional responsibility. This level of responsibility is represented by the full understanding and the competent application of the basic tools of the profession. Assignments which require independent professional responsibility are such that the validity of the results is presumed; that is, there is an assumption that the findings are the product of competent application of accepted professional techniques of research and analysis.

In a large and complex organization, assignments at the GS-11 level represent the smallest division of work in which management is willing to invest full professional level ability and talent. In other types of organizations where assignment patterns are made up of individual studies, work is so preplanned and sequenced that the smallest studies or simplest series of studies requiring such professional independence are assigned to GS-11 economists.

Assignments typically involve studies or program segments with readily definable objectives, available information sources, and conventional research procedures. Such studies characteristically fit within the pattern of a broad scheme of research which provides objectives, controls sequencing, and establishes timing. Within these broad considerations, however, studies assigned to economists at the GS-11 level require a thorough understanding of the basic economic problem, the integration of the assigned study into the major research problem, and the planning and execution of sequential work steps.

The following examples are typical of the type of individual assignments given to GS-11 economists:

1. Plan and carry out a project for collecting detailed economic data (employment statistics, for example, or marketing data) from primary sources such as the records of business firms. This

assignment characteristically will require a complete understanding of the large research plan established by the agency, as well as considerable familiarity with established practices and procedures, covering, for example, the statistical formulae for determining sample size, procedures for sample selection, the method of organizing actual data collection and reporting, procedures for data verification, processing and tabulation, and the principles and policy governing analysis and coordination of findings. Such a project is typically a part of a large and continuing program and will include *this year's* data from a particular segment of the economy (like a single industry) or of the country (a particular region).

2. Plan and prepare a quantitative analysis of data on the extent and type of change in land value in a particular area resulting from a change in highway service. Such an assignment when given to a GS-11 economist will be accompanied with suggestions as to information sources and instructions covering procedures for analysis. It will require a thorough understanding of the basic techniques involved and of the purpose of the major program of which it is a part.

3. Plan and prepare an interpretive report on the productivity capacity of a particular industry, including current and historical information on the ratio of capacity to utilization, to be used as an important segment of a comprehensive industry analysis. In such a case, the economist responsible for the larger project may suggest data sources and will review the research plan, approve proposed procedures, make technical advice and instruction available throughout the project, and provide thorough review of the finished report.

Technical complexity

Although broad program planning and sequencing are provided by higher-grade economists, the following technical requirements are characteristic of this level: (1) proficiency and precision in the use of a variety of techniques, often considerably difficult and involving the correlation of numerous factors; (2) the perception necessary to recognize, understand, and explain significant, and possible subtle, variations from expected findings; (3) initiative and knowledge sufficient to select, modify or develop procedures to meet unexpected or altered conditions; and (4) the imagination, when necessary, to suggest investigations based on observations in related areas.

Technical responsibility

The economist performs each step of the research process in relation to his assigned area of investigation. He states the problem, hypothesizes a solution and plans a method of proving the hypothesis, locates and collects requisite data, analyzes and interprets pertinent information, draws conclusions and presents findings, sometimes including recommendations for action to affect related economic conditions.

Administrative responsibility

Although the selection of problems to study is usually incorporated in the assignment instruction, GS-11 economists have some responsibility for expanding or contracting studies or for initiating auxiliary studies, subject to supervisory approval. Within the limitation of established research plans, they are generally responsible for determination of data sources, selection and/or modification

of techniques for data processing and analysis, and for planning the method of presentation. Supervisory assistance and guidance are readily available.

Policy responsibility

Although positions at this level do involve responsibility for the validity of data and accuracy of information upon which policy decisions may be based, GS-11 economists do not directly make or recommend policy.

ECONOMIST, GS-0110-12

Scope of assignment

At the GS-12 level the scope of assignments exceed the GS-11 level in either breadth or in depth. Broader assignments, for example, are often characterized by a diversity of studies, that is, the economist may be responsible for a number of studies similar in size to those found at GS-11, but which are being conducted simultaneously; for several of the small program segments typical of the GS-11 level; or for a similar pattern of duties requiring considerable planning and coordination.

This multiplicity, which is characteristic of the GS-12 level assignment, is distinguished from the "pattern of studies" described at the GS-13 level by the responsibility for planning of an integrated research attack on a major problem which is typical of the higher grade. For example, the variety of assignments at the GS-12 level may or may not all relate to a common problem or project but, in either case, the responsibility at the GS-12 level is limited to the coordination and completion of the studies assigned.

In addition to this pattern which relates increasing size and scope of assignments to increasing *breadth*, the GS-12 level also encompasses positions characterized by increasing *depth*, that is, the research may reach into unknown areas of economic understanding (involving new or imperfectly documents theory, premise or technique, for example), or may provide more thorough knowledge, more extensive data and more exact observations of particular economic phenomena. Here, too, assignments characteristically fit into a larger pattern of research planned by higher-graded economists to which GS-12 economists make important and often sophisticated contribution, but for which they are not primarily responsible.

Assignments characteristic of this level include the full scope of the research process, from the initiation of investigations and planning of methods, through the interpretation of findings and the preparation of final reports.

The following examples of the type of assignments characteristic at the GS-12 level are presented in terms of the hypothetical assignments described at GS-11, in order to illustrate the distinctions between the two grades:

1. Plan and carry out a project for collecting detailed economic data similar to that described in example number 1 for GS-11. Such a project would normally be assigned to a GS-12 economist when it is a first-time survey, for although the research plan would be designed by higher-graded economists as indicated at the lower level, an initial study is more likely to involve sampling

problems in an unexplored universe, unexpected collection or processing difficulties, unprecedented data peculiarities or similar unexpected difficulties.

2. The analysis-of-data assignment described in example number 2 for GS-11 would be more typical of GS-12 assignments if the techniques to be used are new and unprecedented, or if the methodology itself is the subject of the investigation.

3. The interpretive report example given at the lower grade would be assigned to a GS-12 economist if there was an anticipated dearth of data requiring a difficult search for sources and complicated and imaginative extrapolation techniques.

Technical complexity

In addition to the technical complexities described at the GS-11 level, demanding technical requirements in GS-12 assignments result from the necessity of relating the immediate assignment into broader patterns of responsibility. These widening patterns may relate, in some cases, to the broad agency program and, in others, to wide theoretical concepts. Distinction from the GS-11 level of difficulty may be recognized by an increase in the number and subtlety of the variables involved, by the need for modification and adaptation of methods or for the innovation of new techniques or procedures, and by the necessity for deeper understanding and insight into the implication of findings. Such difficulties characteristically require a substantial knowledge of current economic events, movements and factors, and the implication of these factors in the agency's program concern.

Technical responsibility

As an independent professional responsible for each step of the investigative process, the GS-12 economist is accountable not only for the factual accuracy of his results but for the thoroughness of his research plan and the cogency of his interpretations. He must be able to recognize and evaluate significant and critical factors, to solve complex problems and to draw rational inferences based on research findings.

Administrative responsibility

Subject to supervisory approval, GS-12 economists are responsible for recommending the initiation, development or revision of projects or studies which fall within the framework of established agency programming and policy. Freedom in decisions of this nature may often be limited by budget considerations which are not normal responsibilities at this level. (For example, a decision to use secondary sources rather than collect primary data could be dictated, not by technical considerations, but by an unavailability of funds over which the economist has no control.) The professional responsibility inherent at this level, however, is for the optimum use of available resources -- money, men, and machines -- in meeting the requirements of programmed research.

Policy responsibility

As at the GS-11 level, the primary responsibility here is for the technical validity of findings, and economists at this level rarely have any responsibility for policy recommendations. Occasionally,

assignments may require reports, analyses and interpretations which higher echelons incorporate into policy recommendations.

ECONOMIST, GS-0110-13

Scope of assignment

The scope of economist assignments typical of the GS-13 level, as at other levels, may be based on either *breadth* or *depth*. In a large and varied operation, the GS-13 economist will characteristically be responsible for a pattern of small studies or program segments which represents in itself an integrated program. Such assignments involve the initiation, formulation, planning, execution, and control of major special studies or continuing projects.

When, on the other hand, the increasing scope coincides with deeper probings into economic phenomena, assignments at this level require a systematic research attack on a problem area of such size and complexity that it must be approached through a series of complete and conceptually related research studies. The development of proposals for major legislation, for example, frequently requires extensive and difficult analyses of the anticipated economic effects of alternate plans. The GS-13 economist must initiate, formulate, plan, execute, coordinate, and bring such studies to meaningful conclusions. Assignments of this nature typically are difficult to define, require sophisticated research technique, or involve the development of new or unconventional methods or approaches.

The distinguishing feature about assignments at the GS-13 level is that they are made in terms of *problems*. That is, rather than being assigned to a study or a project in which the objective has been established, the GS-13 economist is given a problem which must be analyzed and defined and for which he must find a solution. The problems are such that solutions characteristically involve the design of a research plan which the economist may complete himself or may break into projects or studies which can be done by economists at lower levels. In either case, the GS-13 economist is responsible for the original plan, for coordinating the execution of the project, and for the conclusions which represent the solution.

The following are examples of the type of projects which are initiated, planned and conducted by GS-13 economists to solve particular assignment problems:

1. A series of data-gathering studies so designed and integrated as to provide an assessment of the economic impact of particular legislation with considerable economic complications.

2. A series of mathematical models to study the relationship of national income to prices and the effect of various changes in the size of the public debt on the level of national income and prices.

3. A series of studies designed to measure the effect of rising earnings, and employment benefits on social security insurance funding.

4. A project to re-examine the basic measures of employment and unemployment involving an orderly test of the sensitivity of available measures to changes in the economy and the development of more accurate barometers if necessary.

5. An investigation to determine the effect of changes in the production or consumption ratios for particular commodities on the balance-of-payments position of an underdeveloped country, including an evaluation of anticipated consequences on the country's economy.

Technical complexity

GS-13 assignments require the conceptualization of large or complex economic problems typically presenting unprecedented aspects. Requirements of this nature demand not only extensive knowledge of the problem area and related economics, but the imagination and creativity necessary to innovation. Complexities may involve the development and application of new techniques and original methods of attack to the solution of important and unusual problems; the application of a high degree of insight to isolate and define critical features of the problem; the application of considerable originality and ingenuity in adapting, extending and synthesizing existing theory, principle or technique into new patterns; or the defining and conducting of auxiliary research studies necessary to the solution of the assignment problem.

Technical responsibility

Work at the GS-13 level is performed with a marked degree of professional independence and technical authority. Economists at this level are responsible not only for the thoroughness of the research but for the significance of the findings and the effectiveness of the presentations. The work performed is expected to be a finished product, reflecting a high order of professional competence as to accuracy and critical evaluation.

Administrative responsibility

Subject to supervisory approval, economists at the GS-13 level are responsible for identifying, defining, and selecting specific problems for study and for determining the most fruitful investigations to undertake. Professional responsibility at this level includes accountability for the soundness of value judgments reflected in recommendations relative to proposed studies, changes in technical procedures and regulations, alteration in the direction of programmed research, and matters of similar difficulty and importance.

Policy responsibility

This is normally the lowest level at which a professional economist in the Federal service is expected to provide technical advice which is relied on in decisions concerning official Government action intended to affect important aspects of the economy of the nation. Such responsibility does not occur in every position at the GS-13 level and when it is part of the position it is likely to be an occasional demand, limited to the economist's immediate field of expertise. However, advice, counsel and recommendations of this nature provided by higher-graded economists and operating officials are frequently based on findings, interpretations and informal suggestions provided by GS-13 economists.

ECONOMIST, GS-0110-14

Scope of assignment

When an economist assignment at the GS-14 level occurs within the hierarchy of a large, complex operation, the responsibilities characteristically encompass two or more programs of a size similar to those assigned at the GS-13 level. Such assignments involve the formulation, programming and guidance of projects or continuing programs of great importance and significance.

When, as indicated at other levels, the assignment scope relates to depth rather than breadth of investigation, the GS-14 economist position involves responsibility for formulating and guiding major research attacks on problems of great difficulty and critical importance.

Whereas the GS-13 economist is assigned particular problems to explore and solve, assignments to GS-14 economists tend to be far less specific and to involve, rather, a broad and general responsibility for a particular area of economic activity, such as, for example, important facets of international trade or labor law. Within his area of assignment, the GS-14 economist will be expected to anticipate the need for economic knowledge, to assess the adequacy of existing programs, to identify the problems and plan accordingly. The resultant programs may be extensive and varied involving complex organization, extensive staff and elaborate research machinery, or they can be confined to the individual activity of the economist who conceives them, or they may fall somewhere between these extremes. The measure of the GS-14 economist is not the size of the program but his responsibility for authoritative knowledge in a large, complex and usually critical area of Government economic activity.

As recognized authorities in their fields, economists at this level typically serve as consultants and advisors to top-level agency officials, and occasionally may be called on to provide authoritative professional advice in the highest councils of Government.

Technical complexity

GS-14 economists are almost entirely dependent on their own personal professional knowledge and imagination in the assessment and understanding of problems of critical importance. The solution to such problems often requires originality and creativity in the development of plans, design of experiments, invention of methods or the extension of existing theory to new and unusual applications. Frequently, there is a dearth of applicable precedent, pertinent literature, or proved methodology.

Technical and administrative responsibility

GS-14 economists are expected to locate and explore the most fruitful areas of research in relation to the agency's program and needs; to take complete responsibility for formulating and carrying through research plans; to assume full technical responsibility for the interpretation and application of findings; and to develop and present budget recommendations to support these plans.

Policy responsibility

GS-14 economists serve as authoritative technical advisors, within the area of assignment, in the highest councils of Government. They contribute technical information regarding the state of the economy, informed interpretation of observed economic phenomena, and evaluations and forecasts of economic movements. Theirs is the responsibility for seeing that policy makers are provided with accurate, meaningful, and properly evaluated and understood economic information.

ECONOMIST, GS-0110-15

Scope of assignment

Three major functional patterns characterize economist activities at the GS-15 level: They provide the leadership and direction for major divisions of important economic programs which gather, analyze, interpret and publish the vast array of economic information provided by our Government, or which administer legislative decisions bearing on the economic well-being of our society; they assume responsibility for economic research of great importance, significance, and difficulty which, though usually undertaken to solve urgent, practical problems of Government, frequently contributes new insights into the dynamics and relationships of an economic society; and they furnish economic advice and counsel on important action decisions of the Government, from the planning and execution of Government economic policy to the drafting of proposed economic legislation. Although it is characteristic for one of these patterns to predominate in GS-15 economist positions, most jobs involve aspects of all three.

In addition, there is a shift in emphasis in economist positions which begins to manifest itself at GS-15. At grades GS-14 and below, and in many positions at GS-15, the responsibility of the economist ends with his providing authoritative technical information and a recommendation for action. In such cases, the economist says, in effect: "This is the situation; these are the causal factors; these are the alternatives for action. If this alternative is followed, this should be the result; if that alternative is followed, then expect that result."

Therefore, although the end product of much of the work of Government economists is a decision for action based on the economic information and analysis, most of the positions in this series carry no responsibility for the actual decision. However, responsibility for decisions as to Government action on problems with important economic significance and consequences does occur in some economist positions at GS-15. This responsibility is not, of course, typical of all GS-15 jobs; when it is present it is characteristically limited to situations in which the professional judgment is based on expertness in a narrow and specific area of economics, and the decision will involve matters which, though of considerable scope and importance, will not have a critical impact on major industries or national economic interests.

Responsibility

Normally, GS-15 economists bring to their assignments the professional authority of demonstrated outstanding attainment within their individual fields. As a result, both their professional influence and technical responsibility are proportionately great. As administrators of major economics programs they are responsible for the integrity of the economic knowledge produced; as researchers their contributions are of such importance and magnitude that they serve to move forward the