

WHAT TO FILE . . .

PERSONAL QUALIFICATIONS STATEMENT, SF 171. Be sure to indicate the positions for which you are applying and to give a positive indication of where you are willing to work. If you are applying for research positions, indicate interest in research and describe each segment of pertinent professional experience in sufficient detail to include: nature of the fields or specialties in which you worked; nature and extent of individual and team duties and the approximate proportion of time in each; research or technical contributions personally made; level of difficulty and responsibility of the various positions held; and degree and nature of supervision given and received. Give special attention to research, development, and consulting work, including such functions as report writing, presentation of technical papers, membership in special committees, etc. If research work has been accompanied by teaching, show the percentage of time spent on each phase of work. Your description of professional experience need not be lengthy, but should include all pertinent information.

The three references called for in Item 22 should be persons who are familiar with your technical background and abilities, especially in the areas related to the optional field for which you are applying.

CARD FORM 5001-ABC

COLLEGE TRANSCRIPT or LIST OF COLLEGE COURSES, Form 226, Part I. Complete Part II also if you are applying for grade GS-7 or GS-9 based on superior undergraduate achievement. Where a course title is not indicative of the subject matter of the course, give a brief description of it. If you are now a student, be sure to include a list of courses you are now taking or plan to take, including course titles and catalog numbers, hours of credit and anticipated dates of completion, as well as anticipated date of completion of requirements for degree.

STANDARD FORM 15, with the documentary proof required therein, if you are claiming 10-point veteran preference (disability, widow, wife, or mother preference). Documentary proof will be returned.

For research positions you should also file . . .

THESIS. Give the full title and an abstract or concise description of your master's or doctor's thesis, or both, giving sufficient detail to indicate clearly the nature of the problem investigated, the methods used, and the nature of the results; this is particularly important for

recent graduates. *If you are now a graduate student, be sure to include the anticipated date of completion of your thesis as well as the title, problem, methods, and anticipated results.*

LIST OF PUBLICATIONS OR REPORTS on research work pertinent to the optional field applied for. When papers are under joint authorship, give the part you played in the work and in the preparation of manuscripts. Include, if possible, reprints or abstracts of representative items, but do not send a large bulk of material—only enough to provide a basis for evaluation of your work. This material will be returned only upon your request.

OTHER INFORMATION . . .

SALARIES. For current information about salaries, please refer to the latest CSC Salary Supplement, AN 2500.

Persons appointed to many of the positions filled through this examination may be paid for the expenses of travel and transportation in reporting for duty. This means the cost of travel for you, your immediate family, and for movement of your household goods to your first duty station.

STUDENTS. Applications will be accepted from graduate and undergraduate students in accredited colleges or universities who expect to complete the required courses or requirements for the degree within 9 months from the date of filing application. Students should indicate in the list of their courses those that will be completed within 9 months. Students who are qualified in all other respects may receive provisional appointments prior to completion of required education, but they may not enter on duty until they have completed all the courses and/or degree requirements.

EQUAL EMPLOYMENT OPPORTUNITY. Qualified applicants will receive consideration for appointment without regard to race, religion, color, sex, or national origin.

GENERAL INFORMATION. For information about citizenship, kinds of appointments, physical requirements, veteran preference, and other general information, see Civil Service Commission Pamphlet No. 4, *Working for the U.S.A.*, which may be obtained at most places where applications are available.

OPPORTUNITIES VARY . . .

In order to provide an avenue into the Federal service for well qualified persons in all specialized fields and to provide agencies with a pool of talent for filling a number of related jobs, this announcement includes all professional positions in the agricultural and biological sciences at grades GS-5 through 15. Actual hiring needs, however, vary considerably between the disciplines covered.

YOUR CHANCES FOR EMPLOYMENT . . .

Are best at the college entry level, grades GS-5 and 7, in agricultural management, forestry, microbiology, plant quarantine and pest control, range conservation, soil conservation, and soil science. In a typical year, hires in these fields account for more than half of the total employment activity in agricultural and biological sciences. In addition, fair opportunities exist at the entry level in entomology, pharmacology, plant pathology, plant physiology, fishery and wildlife biology.

As the grade level increases, the number of positions filled decreases, and competition for them increases. The number of jobs in grades GS-13, 14, and 15 filled from outside the Federal service is relatively small. This is because Government agencies, as do most other employers, fill most positions at these senior levels by the reassignment, transfer, or promotion of persons who entered the Federal service earlier in their careers and have demonstrated their ability to perform at a high level of responsibility. However, even at these levels, there are occasional openings for exceptionally well qualified candidates or for persons with highly specialized background.

POSITIONS ARE LOCATED . . .

In the Departments of Agriculture; Interior; Health, Education, and Welfare; the Veterans Administration; and various other agencies throughout the United States. A very few positions may be filled overseas.

THE BASIC REQUIREMENTS ARE . . .

A. Successful completion of a full 4 year course of study leading to a bachelor's or higher degree from an accredited college or university, with a major in a pertinent field of biological or agricultural science. This

course of study must have included the specific requirements for the position for which you are applying, as shown below.

OR

B. Completion of the specific course requirements specified below for the appropriate field of science, plus a sufficient amount of experience or education to total 4 years of experience and education and to be the qualitative equivalent of the 4 year course of study described in A above.

NOTE: Applicants for research positions and for positions in pharmacology, physiology, plant physiology, plant pathology, range science, and genetics *must* qualify on the basis of A above.

YOU MAY WORK IN . . .

AGRICULTURAL MANAGEMENT, performing a broad range of functions in carrying out supervised credit and technical assistance programs for rural people and communities. The work involves such activities as crop and livestock production, preparation and marketing of products, and supporting financial, management, rural housing and community resource development activities.

Course Requirements—Major in farm, livestock, or ranch management, agricultural economics, agricultural education, agronomy, husbandry, agricultural engineering, general agriculture, horticulture, etc. *Those qualifying on the basis of combined education and experience* must have 30 semester hours in such courses.

AGRONOMY, performing research, administering or advising on scientific work in the fundamental principles of plant, soil, and related sciences as they apply to crop breeding and production, conservation, propagation and seed production, ground maintenance, and plant adaptation and varietal testing.

Course Requirements—30 semester hours, or equivalent, in the basic plant sciences (e.g. botany, plant taxonomy, plant ecology, plant breeding or genetics, microbiology, soil science), with a minimum of 15 semester hours in agronomic subjects such as those dealing with

NOTE: Plant quarantine and pest control positions are almost never filled above grade GS-7.

plant breeding, crop production, and soil and crop management.

BOTANY, working on the taxonomic position and nomenclatorial status of plants, identification and description of plants and seeds, plant distribution and growth habits, and economic value and histochemical studies of plants, fruits, and vegetables.

Course Requirements—24 semester hours, or equivalent, of botany. For positions dealing with the study of fungi or basic mycological relationships, the study must include 6 semester hours of mycology.

ENTOMOLOGY, performing research or administering or advising on scientific work applying fundamental knowledge of the principles of biological and physical sciences to the control of insects affecting crops, man and animals, and to the use of beneficial insects.

Course Requirements—30 semester hours in basic biological and physical sciences, with a minimum of 16 semester hours in entomology.

FISHERY BIOLOGY, studying the life history, habits, classification, and economic relations of aquatic organisms; managing fisheries or fishery resources; or performing research involving quantitative determination of interrelations between species of fish, the effects of natural and manmade changes of the environment on survival and growth of fish; determining rearing and planting methods best adapted for maximum success in hatchery operations; or devising methods to regulate fishing to secure a sustained maximum yield.

Course Requirements—30 semester hours, or equivalent, in biological sciences including: 1) 6 semester hours in aquatic subjects such as limnology, ichthyology, fishery biology, aquatic botany, aquatic fauna, oceanography, fish culture, etc.; 2) 12 semester hours in the animal sciences in such subjects as general zoology, vertebrate zoology, comparative anatomy, physiology, entomology, parasitology, ecology, cellular biology, genetics, or research in those fields (excess course work in aquatic subjects may be used to meet this requirement when appropriate).

For Research positions—Major in biology, zoology, or biologic oceanography including 30 semester hours in biologic and aquatic sciences and 15 hours in physical and mathematical sciences including: 1) 15 semester

hours of preparatory training in zoology, beyond that provided in introductory courses in zoology and biology, in such courses as invertebrate zoology, comparative anatomy, histology, physiology, embryology, advanced vertebrate zoology, genetics, entomology, parasitology; 2) 6 semester hours of training applicable to fishery biology in such subjects as fishery biology, ichthyology, limnology, oceanography, algology, planktonology, marine or fresh water ecology, invertebrate ecology, principles of fishery population dynamics, etc.; 3) 15 semester hours of training in any combination of 2 or more of the following—chemistry, physics, mathematics, or statistics.

FORESTRY, working in the development, production, conservation, utilization, and protection of natural forest resources; management of these resources, including timber, forage, watersheds, wildlife, and land, to meet present and future public needs. Research work involves development of new, improved or more economic scientific instruments and techniques necessary to perform such work.

Course Requirements—24 semester hours in forestry, sufficiently diversified to fall into at least 4 of the following areas: 1) silviculture, i.e. such subjects as forest soils, forest ecology, dendrology, silvics, and silviculture; 2) forest management; 3) forest protection; 4) forest economics, i.e. such subjects as forest finance and forest valuation; 5) forest utilization, i.e. such subjects as logging and milling; product preparation and use of wood, etc.; 6) related studies, i.e. such subjects as forest engineering, forest recreation, watershed management, wildlife management. To assure proper diversification of course work, no more than 6 semester hours credit will be given for courses in any one of the specializations listed. *Those qualifying on the basis of combined education and experience* must have 30 semester hours in any combination of the biological, physical or mathematical sciences or engineering, including 24 hours in forestry subjects as described above. *For administrative positions*, applicants must meet the requirements above or have college education in range conservation, soil science, wildlife biology, geology, or engineering, provided that the training has been supplemented by a sufficient amount of professional experience, gained in a work situation which required the joint application of full professional knowledges of forestry and related fields in solving highly technical and complex problems concerned with the planning, developmental, and administrative phases of multiple-use forest land management.

GENETICS, testing and applying genetic principles to determine the inheritance of genetic characteristics and to develop more effective breeding methods and selection procedures for plants and animals; studying the interaction of genetic characters, their environment, and the basic physiological and anatomical principles involved, the possible use of induced polyploidy and irradiation in crop improvement, and the cytogenetics and cytotaxonomy of plants.

Course Requirements—9 semester hours, or equivalent, in genetics.

HOME ECONOMICS, measuring and evaluating quality factors and properties of foods for cooking, preservation, safety, and table use; chemical compositions or nutritive value of foods as affected by household processing; biological, physiological, or biochemical studies on physiological use of foods and need for various nutrients; economic and statistical studies on the diets of population groups and economy of various home management methods; space and arrangements for farm home activities, performance requirements, and improved methods for use and care of household equipment; home management and community development; and serviceability studies on clothing and textiles.

Course Requirements—20 semester hours, or equivalent, in or closely related to one or more of the following fields of home economics: Food and nutrition; home management and household economics; housing and household equipment; textiles and clothing; child and family development.

HORTICULTURE, studying the breeding, propagation, and culture of fruits, vegetables, ornamental trees, and shrubs, and related problems of production, storage, and handling.

Course Requirements—30 semester hours, or equivalent, in basic plant sciences (e.g. botany, plant physiology, genetics, agronomy, taxonomy, etc.), with a minimum of 16 semester hours in horticultural subjects.

HUSBANDRY, developing new and improved methods of breeding, feeding, and nutrition of poultry and livestock; improving the management and utilization of poultry and livestock and the quality of meat, poultry, and dairy products.

Course Requirements—30 semester hours, or equivalent, in basic biological and agricultural sciences with a

minimum of 20 hours in animal sciences. Of these 10 semester hours must be in the appropriate field of husbandry.

MICROBIOLOGY, studying the characteristics and life processes of microorganisms, the interrelationships among microorganisms, their relationships to other living forms, and their reactions to the environment in which they are found.

Course Requirements—30 semester hours, or equivalent, in the biological sciences, of which 20 semester hours are in microbiology and related subjects oriented toward the study of microorganisms; plus 20 semester hours, or equivalent, in the physical and mathematical sciences combining course work in organic chemistry or biochemistry, physics, and college algebra, or their equivalent.

PHARMACOLOGY, applying knowledge of the source, chemical and physical properties action, absorption, distribution, metabolism, excretion, and use of drugs, toxic substances, and related chemicals.

Course Requirements—30 semester hours, or equivalent, in chemistry and physiology, and 12 semester hours in pharmacology.

PHYSIOLOGY, performing professional and scientific work concerned with the study of the functions and processes essential to human and animal life, including environmental responses, physiological aspects of reproduction and development in various forms of life, and biochemical and biophysical relationships involved in the metabolic processes.

Course Requirements—24 semester hours, or equivalent, in the basic animal sciences with a minimum of 10 semester hours in animal physiology.

PLANT PATHOLOGY, advising on, administering, supervising, or performing research in the investigation of the cause, nature, prevalence, and severity of parasitic, nonparasitic, and virus diseases attacking plants; the establishment of methods for the prevention and control of such diseases; or the relation of such diseases to practices involved in the propagation, planting, cultivation, transportation, and storage of plants and plant products.

Course Requirements—20 semester hours, or equivalent, in basic botany or plant sciences with a minimum of 10 semester hours in plant pathology.

PLANT PHYSIOLOGY, performing research or other scientific work pertaining to one or more of such vital functions as plant growth, nutrition, respiration, and reproduction that are essential to the life of the plant or its use. This includes work on the internal processes such as assimilation, photosynthesis, translocation, or transpiration that are involved in vital functions; or on the influence which one or more environmental factors, such as humidity, water, light, mineral nutrients, and temperature have on these functions and processes.

Course Requirements—10 semester hours, or equivalent, in plant physiology.

PLANT QUARANTINE AND PEST CONTROL, applying knowledge of the biological and plant sciences and of the transportation and shipping industries and quarantine techniques to the establishment and enforcement of plant quarantines governing movement of injurious plant pests of economic significance, or to the survey, detection, identification, control, or eradication of plant pests.

Course Requirements—20 semester hours, or equivalent, of course work in any combination of one or more of the following: Entomology; botany; plant pathology; nematology; horticulture; mycology; invertebrate zoology; or closely related fields. *Those qualifying on the basis of combined education and experience* must have 30 semester hours in such fields.

RANGE CONSERVATION, inventorying, analyzing, improving, protecting, utilizing, and managing the natural resources of rangelands and related grazing lands; regulating grazing on public rangelands; developing cooperative relationships with range users; assisting landowners to plan and apply range conservation programs; developing technical standards and specifications; conducting research on the principles underlying rangeland management; and developing new or improved instruments and techniques.

Course Requirements—30 semester hours, or equivalent, in any combination of the plant, animal, and soil sciences and natural resources management, including 12 semester hours in range management.

SOIL CONSERVATION, advising on, administering, coordinating, performing, or supervising scientific work in a coordinated program of soil, water, and resource

conservation which requires the application of a combination of agricultural sciences in order to bring about sound land use and to improve the quality of the environment.

Course Requirements—A major in soil conservation, related agricultural sciences, or civil engineering. *Those qualifying on the basis of combined education and experience* must have 40 semester hours, or equivalent, including at least one course in soils or soil conservation and one course in each of 3 of the following 5 groups: 1) woodland management, plant ecology, economic biology; 2) farm crops or pasture management; 3) feeds and feeding or animal nutrition; 4) farm or range management or agricultural economics; 5) farm drainage or hydraulics, hydrology, or plane surveying.

SOIL SCIENCE, studying and investigating soils from the standpoint of their morphology, genesis, and distribution; their interrelated physical, chemical, and biological properties and processes; their relationships to climatic, physiographic, and vegetative influences; and their adaptation to use and management in agriculture.

Course Requirements—30 semester hours, or equivalent, in biological, physical, and earth sciences with a minimum of 15 semester hours in soils.

WILDLIFE BIOLOGY, working in the conservation and management of wildlife, or in the determination, establishment, and application of the biological facts, principles, methods, techniques, and procedures necessary for the conservation and management of wildlife.

Course Requirements—30 semester hours, or equivalent, in biological sciences, including: 1) 9 semester hours in such wildlife subjects as mammalogy, ornithology, animal ecology, wildlife management, or research courses in wildlife biology; 2) 12 semester hours in zoology in such subjects as general zoology, invertebrate zoology, vertebrate zoology, comparative anatomy, physiology, genetics, ecology, cellular biology, parasitology, entomology (excess wildlife biology courses may be used to meet this requirement where appropriate); 3) 9 semester hours in botany or related plant sciences. *For research positions*, courses must include: 1) 12 semester hours in such zoological subjects as invertebrate zoology, vertebrate zoology, comparative anatomy of vertebrates, embryology, animal ecology, entomology, herpetology, parasitology, genetics; 2) 9 semester hours of training applicable to wildlife biology in such courses as mammalogy, ornithology, animal ecology, wildlife management, principles of popu-

lation dynamics, etc.; 3) 9 semester hours in botany and related plant sciences; 4) 15 semester hours in any combination of two or more of the following—chemistry, physics, mathematics, statistics, soils and/or geology.

WILDLIFE REFUGE MANAGEMENT, developing management and operational plans for bird and game refuges; seeing that the wildlife is properly protected; and working with individuals, organizations, and the general public on matters pertaining to refuge and related wildlife management programs.

Course Requirements—9 semester hours, or equivalent, in zoology; 6 semester hours in such wildlife courses as mammalogy, ornithology, animal ecology, or wildlife management, or equivalent studies in the subject matter field; 9 semester hours in botany.

ZOOLOGY, administering or performing research in the occurrence, structure, identification, and life histories of parasitic and nonparasitic organisms affecting plants and domestic and wild animals; pathology, epidemiology, immunology, physiology, and host relationships; and biological, physical, and chemical control.

Course Requirements—30 semester hours, or equivalent, in biological science, including at least 20 hours in zoology and related animal sciences.

OTHER POSITIONS in such professional fields as General Biological Science, Agricultural Extension, and General Fish and Wildlife Administration will also be filled from this announcement.

YOU CAN QUALIFY FOR POSITIONS AT HIGHER LEVELS . . .

If you have had appropriate professional and scientific experience or education beyond the basic requirements, as follows.

For grade GS-5: None.

For grade GS-7:

Experience—One year of professional experience which was comparable to work at the GS-5 level in the Federal service. This experience must have demonstrated ability to apply basic principles to relatively distinct and well defined problems.

Superior undergraduate achievement—If you have completed, or expect to complete within the next 9 months, all requirements for the bachelor's degree from an accredited college or university, you may be rated eligible for GS-7 if you meet *one* of the following:

- A. Standing in the upper third of your class based on completed college work at the time of application. This is the upper third of the class in the college or university or major subdivision (e.g. school of arts and sciences);
- B. Grade-point average of 2.90 or better on a 4.00 scale. This is either:
 1. The average of all completed college courses at the time of application; or
 2. The average of all college courses completed during the last 2 years of the undergraduate curriculum.
- C. Grade-point average of 3.5 or better on a 4.0 scale in your major field, where such field is directly applicable to the specialty field of the position to be filled. This is either:
 1. The average of all completed college courses in the major field at the time of application; or
 2. The average of college courses completed in the major field during the last 2 years of the undergraduate curriculum.
- D. Election to membership in Phi Beta Kappa, Phi Sigma, or one of the national honorary scholastic societies meeting the minimum requirements of the Association of College Honor Societies, other than freshman honor societies.
- E. A score of 600 or better on an appropriate Area or Advanced Test of the Graduate Record Examinations. GRE Aptitude Test scores are not creditable for meeting this provision.

As a senior, you may be rated provisionally eligible under B2 or C2 above provided you had the required average in the junior year. You will be required to submit evidence at the time of appointment that you maintained the required average during the senior year.

Graduate Study—One full academic year of graduate study may be substituted for the year of professional experience required at grade GS-7.

Student trainee experience—Preprofessional student trainee experience may be credited toward meeting requirements for GS-7 in full if:

- A. It was integrated with the college curriculum;
- B. You successfully completed 12 months of student trainee experience which included one period (no less than 60 days) equivalent to work at the GS-5 level in the Federal service, or at least 15 months of

student trainee work in a cooperative work-study curriculum which included one work period equivalent to work at the GS-4 level in the Federal service; and

- C. The work experience contributed directly and progressively to development of professional competence in the specialized field of the position to be filled.

For grade GS-9:

Experience—At least 2 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-7 level in the Federal service. Experience must have demonstrated a good grasp of the basic principles of the appropriate field of science, the ability to apply standard methods and techniques, and ability to work independently on moderately difficult staff, research, or operating assignments. *Master's degree*—If you have completed all requirements for a master's degree from an accredited college or university, you may be rated eligible for GS-9, provided the graduate study was pertinent to the specialty field for which you are applying.

Superior academic achievement and subsequent work experience—If you meet one of the superior academic achievement provisions for GS-7 defined above and have subsequently obtained professional work experience, you may be rated eligible for GS-9, provided that at least 1 year of this work experience has been directly pertinent to the specialty field applied for and at a level of difficulty and responsibility equivalent to the GS-7 level in the Federal service.

For grade GS-11:

Experience—At least 3 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-9 level in the Federal service. Experience must have demonstrated ability to work independently and perform difficult and responsible assignments in an operational, staff, or research capacity.

Graduate study—If you have completed all requirements for a graduate degree from an accredited college or university for which the minimum university requirement is a full 2 years of graduate study, you may be rated eligible for research or creative or advanced scientific positions at GS-11 provided the graduate study was pertinent to the specialty field for which you are applying.

If you have completed all requirements for the Ph. D. or equivalent degree, or at least 3 full years of graduate study, you may be rated eligible for all positions at

GS-11 provided the study was in an accredited college or university and was pertinent to the specialty field for which you are applying.

For grade GS-12:

Experience—At least 3 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-11 level in the Federal service. Experience must have demonstrated either a broad knowledge and understanding of the principles and procedures that are applied in the appropriate field of science, or an intense and refined knowledge of the specific principles and procedures applied in a specialized subject matter area of the science. For nonresearch positions, the experience must also demonstrate ability to assist in planning, organizing, and directing a complex technical operation, or ability to act as a consultant on work of similar nature.

Ph. D. degree—If you have completed all requirements for a Ph. D. or equivalent degree from an accredited college or university, you may be rated eligible for positions at GS-12 which involve personal performance of advanced professional work in research or very similar research-type exploratory development provided the graduate study was pertinent to the specialty field for which you are applying.

For grade GS-13:

Experience—At least 3 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-12 level in the Federal service. Experience must have demonstrated ability to plan, organize, and direct a highly specialized or complex program, to coordinate and supervise a series of projects, to act as a consultant on work of similar nature, or to perform original research of considerable importance.

For grade GS-14:*

Experience—At least 3 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-13 level in the Federal service. Experience must have demonstrated a broad grasp of the scientific relationships that apply to the appropriate field of science and the ability to apply

*NOTE: For MICROBIOLOGIST positions, Fellowship in good standing in the American Academy of Microbiology, or certification by the American Board of Microbiology in one of its approved specialties, meets in full the requirements for GS-14.

a comprehensive range of principles, procedures, and methods. It must also show, for nonresearch positions, a high level of ability to plan, organize, develop, and direct a highly technical or complex program where the work is very difficult and responsible; and, for research positions, ability to perform highly difficult original research or to provide leadership in conceiving, planning, developing, directing, and interpreting research programs.

For grade GS-15:

Experience—At least 3 years of professional experience, of which at least 1 year must have been at a level of difficulty comparable to the GS-14 level in the Federal service. Total background must clearly indicate professional recognition for outstanding competence in your field and must demonstrate ability to plan, develop, direct, and conduct highly difficult scientific research programs that are regional or wider in scope or have critical scientific significance.

IF YOU HAVE PERFORMED HIGHLY CREATIVE OR OUTSTANDING RESEARCH . . .

You may be rated eligible for the next higher grade above that for which you would normally be rated, provided the normal rating was not achieved on the basis of meeting the graduate degree requirements described above. To receive this rating, you must present positive evidence that your work was creative in the sense that it developed a basic principle, product, concept, method, approach or technique, or provided a body of basic information that opened the way for a major advance either in the discipline or field of science involved or in science in general, by providing a method of solving other problems, opening areas of research, or providing the means of exploiting the application of science in a major area.

COLLEGE TEACHING EXPERIENCE . . .

In an appropriate field may be credited toward meeting professional experience requirements if your teaching experience was accompanied by a significant amount of research or direction of research.

SOME JOBS REQUIRE OTHER ABILITIES . . .

ABILITY TO WORK WITH OTHERS. The duties of certain positions, particularly in the fields of agricultural management, soil and range conservation, soil science, plant pest control and plant quarantine inspection, and fishery and wildlife biology, require the ability to work with others, both on an individual and group basis. For these positions you must show that you possess the ability to meet and deal with the public in day-to-day work and to establish and maintain good public relations through contacts with individuals, organizations, and representatives of other agencies.

SUPERVISORY, ADMINISTRATIVE, AND MANAGERIAL ABILITY. Some positions require the ability to supervise or administer research projects or programs. For these positions, you must show that you have ability to cooperate and deal successfully and satisfactorily with professional, scientific, or technical workers, and that you have a sound knowledge of the methods and procedures used to supervise, administer, and manage the particular type of project or program involved.

ESTABLISHING ELIGIBILITY . . .

YOU WILL BE RATED for the lowest grade or salary level which you will accept and for all higher grades for which you are qualified. For grades GS-5 and 7, you will be assigned a numerical rating on a scale of 100 based on your education and experience as described in your qualifications statement. For grades GS-9 and above, a preliminary review will be made of your training and experience, and you will be notified whether you meet the basic requirements outlined in this announcement. When a specific vacancy is to be filled at these grade levels, the qualifications of candidates who are eligible for the appropriate specialty and grade level will be evaluated with reference to the specific requirements of the position. This evaluation will be based on the candidates' qualifications statements and on any additional information that may be secured.

LISTS OF ELIGIBLES. Separate lists of eligibles will be maintained at each grade level for each field covered by this announcement.

For continued eligibility, eligible competitors must submit up-to-date information about their qualifications at intervals of not less than 12 months nor more than 13 months from the date of the notice of rating.

Some Data on Disease and Parasitism

1. The United States (Pop. 160,000,000) - (Data from M. Shepard, 1956, St. Louis Globe Democrat) (All figures are in millions)

<u>Disease</u>	<u>No. of victims</u>	<u>Annual expenditure for research and alleviation</u>
Arthritis, rheumatism	11.00	\$ 1.8
Mental illness	10.00	1.5
Heart and Circulatory	10.00	11.3
Tuberculosis	1.20	24.7
Cancer	.75	21.7
Cerebral Palsy	.55	8.2
Muscular dystrophy	.20	3.9
Polio	<u>.10</u>	<u>66.9</u>
Total	33.80	140.0

2. The World (pop. 2,700,000,000) (Data from various sources)

<u>Disease</u>	<u>No. of victims</u>	<u>Estimated annual cost in production, etc.</u>
Malaria	250.0	\$1700.00 (to U.S., about 300.0) no estimate
Trypanosomiasis	?	(the annual value of 4 1/2 million sq. miles farm land)
Schistosomiasis	100.0	800.0
Clonorchiasis	20.0	100.0
Filariasis	?	?
Hookworm disease	<u>?</u>	<u>?</u> over \$3000.0

3. Malaria Eradication (Data from Med. Jour., Australia, May 10, 1958; other sources)

- a. Progress in eradication
- Planned 16 countries of 580.0 population
 - Begun 44 countries of 302.0 population.
 - Advanced 7 countries of 43.0 population.
 - Achieved 9 countries of 231.0 population.
- b. Some cost estimates
- India - annual loss due to malaria \$400.0
 - estimated total cost of eradication, aiming at 1965 114.0
 - Mexico - annual loss due to malaria 18.0
 - estimated total cost of a 5-year plan 21.0
 - U. S. - est. annual loss 5% of total cost, imports 300.0
 - U. S. - contribution to World Malaria Erad. Programs - ("about 0.18% of Foreign aid, to 1958") 30.0 ?
- c. 1958 Budget for Malaria Control
- UNICEF 8.0
 - PASO (Pan American Sanitary Office) 2.0
 - WHO MESA (Malaria Eradication Special Account) 5.0
 - U. S. P. H. S. (Malaria research) 1.0 (?)
 - ICS (International Cooperation Administration: U.S.) 23.0
 - Total funds, World or Regional Agencies 39.0
 - National Governments of countries cooperating in the project 60.0
 - Total available, 1958 about 100.0
- d. Summary - World annual loss due to Malaria much greater than 1,000.0
- World annual expenditures for Malaria eradication - about 100.0
 - Probable total cost of eradication, over 5-year period for exposed population of about 1,600.0 400.0

Note - The last figure may be too low by a factor of 2 or 3, in view of different costs of operating a program in different countries.

PREVIOUS ELIGIBILITIES. Lists of eligibles established as a result of this announcement will supersede lists established as a result of all previous announcements covering these fields. Persons rated eligible under appropriate announcements since April 1, 1969 need not reapply; they will be rerated under the terms of the new announcement. All other persons must reapply under this announcement if they wish continued eligibility.

SELECTIVE PLACEMENT. Some positions filled from this announcement require highly specialized knowledge or professional experience. You will be considered for these positions only if you meet the agency's qualifications.

WHERE TO FILE . . .

For positions in:

Agricultural
Management, GS-5/7
Entomology, GS-5/7
Fishery Biology, GS-5/7
Forestry, GS-5/7
General Biology, GS-5/7
General Fish and Wildlife
Admin., GS-5/7
Microbiology, GS-5/7
Range Conservation, GS-5/7
Soil Conservation, GS-5/7
Soil Science, GS-5/7
Wildlife Biology, GS-5/7
Wildlife Refuge
Management, GS-5/7

You should file with:

Interagency Board of U.S. Civil
Service Examiners
319 SW. Pine Street
Portland, Oregon 97204

Interagency Board of U.S. Civil
Service Examiners
Federal Building Annex
135 S. State Street
Salt Lake City, Utah 84111

Interagency Board of U.S. Civil
Service Examiners
415 W. Hillsborough St.
Raleigh, North Carolina 27603

For consideration in:

Alaska, California, Hawaii, Idaho, Montana, Nevada, Oregon, Washington, and the Pacific area.

Arizona, Arkansas, Colorado, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming.

Alabama, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, Virgin Islands, Washington, D.C., West Virginia, Wisconsin, and overseas areas except the Pacific.

(For the above positions you should send your application only to the Interagency Board having jurisdiction over your preferred place of employment. If you are also available for other locations, you may establish eligibility with the other Interagency Boards after you receive a notice of rating by sending them copies of your application and notice of rating.)

WHERE TO FILE . . . Continued

For positions in:

Agricultural
Extension, GS-5/15
Agronomy, GS-5/15
Botany, GS-5/15
Entomology, GS-9/15
Genetics, GS-5/15
Home Economics, GS-5/15
Horticulture, GS-5/15
Husbandry, GS-5/15
Microbiology, GS-9/15
Physiology, GS-5/15
Plant Pathology, GS-5/15
Plant Physiology, GS-5/15
Plant Quarantine and
Pest Control, GS-5/7
Soil Conservation, GS-9/15
Soil Science, GS-9/15
Zoology, GS-5/15

You should file with:

Interagency Board of U.S. Civil
Service Examiners
Hyattsville Branch Office
Federal Center Building
Hyattsville, Maryland 20782

For consideration in:

All areas, U.S. and overseas.

For positions in:

Agricultural
Management, GS-9/15
Fishery Biology, GS-9/15
Forestry, GS-9/15
General Biology, GS-9/15
General Fish and Wildlife
Admin., GS-9/15
Pharmacology, GS-7/15
Range Conservation,
GS-9/15
Wildlife Biology, GS-9/15
Wildlife Refuge
Management, GS-9/15

You should file with:

Interagency Board of U.S. Civil
Service Examiners
1900 E Street, NW.
Washington, D.C. 20415

For consideration in:

All areas, U.S. and overseas.