



Eastern Federal Lands Highway Division Federal Highway Administration U.S. Department of Transportation

— STUDENT EDUCATIONAL EMPLOYMENT PROGRAM —

Engineering Student GS-899-3/4/5

Hourly Salary for 2008: GS-899-3 — \$12.69

GS-899-4 — \$14.25

GS-899-5 — \$15.94



Introduction

Nearly one-third of the land area of the United States is Federally owned and administered. The Federal Government has a special interest in and responsibility for highways on or serving these Federal lands. Congress has established a number of programs to fund the construction of highways on Federal lands and has authorized the Federal Highway Administration (FHWA) to perform engineering and related services in connection with their development. The FHWA is responsible for three of these programs:

Forest Highways, Public Lands Highways and Emergency Relief on Federally owned lands. In addition, several other Federal agencies (National Park Service, Bureau of Indian Affairs, Fish & Wildlife Service, and others) depend on FHWA for all, or a portion of their engineering, design and contract administration needs.

The Federal Lands Highway Program has entered into Cooperative Education Agreements with colleges, universities, and technical institutions to provide students with valuable work experience while they are completing their education. The primary purpose of the Student Educational Employment Program (SEEP) is to provide assignments which complement academic study, providing students with an excellent opportunity for on-the-job training and developmental experience, and preparing them for employment with the Federal Highway Administration after graduation.

Student Eligibility

Students must be enrolled in a curriculum leading to a degree in Civil Engineering, Engineering Technology, or other Engineering related fields. Students must also be enrolled in at least a half-time course load and be in good academic standing.

Good Academic Standing

Students must be in good standing with their educational institution and maintaining a current Grade Point Average (GPA) of 2.25, or above.

Work Assignments

Students in the SEEP program typically work two work assignments, which coincide with their school breaks, summers, or as allowed under their co-op agreement. SEEP candidates may be required to perform rotational assignments in the various functional/program areas of the Division, depending upon availability of work assignments, work requirements, and management discretion.

Functional/Program Areas

Bridge Inspection:

Assignments emphasize field inspection of structures to locate and document any deficiencies found, such as spalling of concrete, cracks in the steel, and settlement of piers; taking measurements to completely describe the overall dimensions of the structure; and working with computer programs for the storage and retrieval of inspection data.

Construction:

Assignments emphasize developing skills in performing inspection of construction operations (drainage structures, roadway, bridges, guardrails, and other highway related items) for compliance with the contract plans and specifications, measuring highway construction items, and record keeping for the purpose of payment to the contractor; and materials sampling and testing to approve and accept material for construction.

Design:

Assignments emphasize developing skills in preparing roadway plans and quantity calculations. As a member of a Highway Design Team, the student may perform quantity computations for Engineer's Estimates, earthwork computations, and basic geometric designs using CADD.

Environment:

Assignments include assisting in the preparation of NEPA documents, required to ensure that both the natural and human environment is studied for potential impacts. Public hearings and meetings are held and officiated by the Environmental Team in order to inform the general public, special interest groups, and Governmental agencies; in an effort to allow public participation in the environmental decision-making process.

Geotechnical/Pavement Design:

Assignments emphasize participating in field pavement condition surveys, nondestructive deflection testing, skid resistance testing, and the sampling of pavement and subgrade materials; assisting with data input and analysis for geotechnical and pavement design using applicable computer software and hardware; participating in field investigations using geophysical exploration equipment power auger drilling equipment; and other field testing and exploration procedures. Assignments involve performing pavement condition distress analysis, maintenance features inventories on park roads, using digital cameras to capture pavement condition and preparing Road Improvement Program reports for field reviews.

Hydraulics and Hydrology Section:

Work assignments involve the following: Determining box culvert and bridge waterway openings, scour depths using HEC-RAS and HEC-18 procedures, and riprap sizing for channels and bridge protection; stream stabilization design; coordinating FEMA flood plan mitigation; Stormwater management design; Bridge scupper design; Drafting water quality monitoring sampling plans; Data entry, graphical presentation and reporting of water quality data.

Project Support Section:

Assignments emphasize duties in the area of the surveys and mapping section. The student will be involved in field surveying by operating the total station and electronic level; keeping notes including the development of sketches; performing rod person duties; cutting brush and trees; and utilizing the field computer to graphically review the survey data.

Road Inventory:

Assignments emphasize developing skills that revolve around pavement inventory, data collection and analysis. Assignments involve field reviews of National Park Service roadways throughout the United States; performance of pavement condition distress analyses in the field; the use of GPS hand held units to collect GPS traces in parking lots and park roads; and the use of digital photography to capture pavement condition for transfer to LAN files.

Living Accommodations

Depending on location, some assignments in construction may require the student employee to work away from the official duty station. For these assignments, field offices are established near remote project locations and in the vicinity of small towns or communities where housing and other facilities are normally available. While assigned to a remote field project away from the official duty station, an employee may be furnished a daily allowance for meals and lodging in addition to salary. Student employees are responsible for securing their own living accommodations.

Pay and Benefits

Students are initially hired at a starting salary ranging between \$12.69 to \$15.94 per hour, depending upon the amount of experience and college level education they have completed. Students may be eligible for pay increases as they complete additional course work and gain additional experience. Students may be eligible for other benefits, such as vacation time, sick leave, health and life insurance, retirement coverage, the Thrift Savings Plan, and both professional and on-the-job training opportunities.

Employment After Graduation

Within 120 days after graduation, the Federal Highway Administration may offer the student permanent employment. This opportunity may arise if positions are available and the student has satisfactorily completed academic requirements for graduation; has successfully worked the minimum requirement of 640 hours AND is recommended for permanent employment by his/her supervisor. United States Citizenship is required for student employment and placement in permanent positions.

Future Opportunities

There are excellent opportunities for advancement in the Federal Lands Highway program. Currently, there are career ladder programs in place for most entry-level positions.

Contacts

For more information on the Student Educational Employment Program and the Federal Highway Administration in your desired geographic location please contact:

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