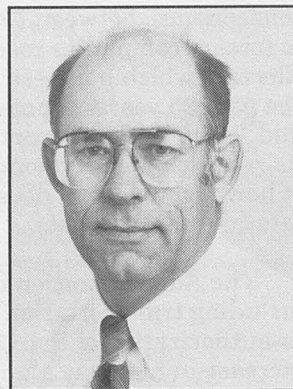


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GENERAL SESSION
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KENTUCKY TRANSPORTATION CABINET SCHOLARSHIP PROGRAM

Initial Years at the University of Kentucky

The Kentucky Transportation Cabinet Scholarship Program was established in 1948 at the University of Kentucky as the Highway Scholarship Program. Prior to 1948, officials of the Kentucky Department of Highways visited the College of Engineering at UK to recruit civil engineers, but met with limited success. At that time the need for engineers was rapidly increasing, but few graduates were joining the Department. D. V. Terrell, Dean of the College of Engineering, proposed a scholarship plan to promote engineering and provide trained personnel to work for the Department. In June, 1948, State Highway Engineer Dwight H. Bray called a meeting in his office to discuss the idea. Attending the meeting were: Highway Commissioner Garrett L. Withers; Dean Terrell; W. O. Snyder, Secretary of the Highway Contractor's Association; Robert E. Shaver, Assistant Dean and head of the Civil Engineering Department at UK; and various officials of the Highway Department. The scholarship idea received a favorable reception from those at the meeting.

At the session it was proposed to set up two scholarships from each of the then nine highway districts. The 18 scholarships would be sponsored by the Department with a request for aid from individual contractors or the contractor's organizations. Within a week, Mr. Withers had obtained

the support of Governor Earl C. Clements and a favorable opinion from Attorney General Carl D. Perkins as to the legality of Highway Department scholarships. On August 22, 1948, the Division of Public Information made the following press release:

"Eighteen scholarships will be offered to selected first-year engineers at the University of Kentucky by the Kentucky Department of Highways, Commissioner Garrett L. Withers announced today. The scholarships, valued at \$500 each, will be supplemented by summer employment within the Department for the entire period of the student's education.

"The plan is being advanced for the purpose of encouraging young engineers to become interested in the Department," Commissioner Withers said.

"In the past, we have been unable to attract enough graduates to enter our field of engineering. The Department's engineering problems are increasing every day and we are rapidly approaching the time when additional engineers will be a necessity.

"The scholarship committee of the University will be asked to select two students each from the nine highway districts. The selections will be made on a competitive basis, and students will be classed as employees of the department. The program has been declared consistent with the laws of the state by Attorney General Carl D. Perkins.

"Dean D. V. Terrell of the College of Engineering at the University and State Highway Engineer Dwight H. Bray have been principals in working out the details of the scholarships."

The selection of scholarship recipients was to be made by the University of Kentucky Scholarship Committee, with merit being the sole determining factor for selection. Eighteen recipients were selected for the 1948 freshmen scholarship group.

Beginning in 1949, various highway industry groups sponsored additional highway scholarships. These organizations included: the Kentucky Highway Contractor's Association, the Plantmix Asphalt Industry of Kentucky, Harry O. Wyse, and J. Stanley Dawson. The industry scholarships were funded solely by the individual organization but while in school the recipients were treated as department scholarship recipients in all other regards. Industry scholarships were associated with department scholarships through 1957.

From fall 1954 to spring 1956, master's degree scholarships were offered to Highway Department employees. Seven individuals participated, and attended UK full time with full salary.

The undergraduate scholarship program remained basically unchanged until 1958 when, at the suggestion of State Highway Engineer Dwight Bray, a sophomore scholarship program was initiated. Those recipients successfully completing their freshmen year with a grade point average of 2.5 or better were eligible to apply. A limit of 12 was set by the department. In 1959 the qualifications were revised to require a 2.0 average, no failures or withdrawals, and completion of all work assigned. Sophomore scholarship recipients were required to serve the Department for two years after graduation.

In 1962, the sophomore program was modified to allow anyone who had finished all work in the first two semesters of civil engineering at UK to apply if they met the qualifications. Preference was given to freshmen recipients, and the number of sophomore scholarships was increased to 15. Ten from the freshmen group and five new recipients were selected for sophomore scholarships in 1962.

The next major change in the program at the University of Kentucky occurred in 1965 with the addition of junior and senior scholarships to provide additional monetary support. The work obligation, after graduation, was continued at one year for each year on scholarship, which could total four years.

Additional Schools Added to Program

In 1965, the Appalachian Regional Commission was established to promote highway improvement projects in the Appalachian region, which included the 50 eastern-most counties in Kentucky. The increased need for highway technicians and technologists in Eastern Kentucky resulted in the establishment of a two-year civil engineering technology scholarship program at Southeast Community College beginning in 1968. Sixteen freshmen students were chosen by the college selection committee, and 13 were able to finish the first year. Freshmen and sophomore recipients received the same monetary support as UK recipients and likewise were required to work one year for each year of scholarship. These recipients obtained an Associate of Science degree in Civil Engineering Technology (ASCET) upon graduation. The program was terminated in 1973 because of personnel changes at the institution and diminished need for technologists in the area.

In 1969, a four-year civil engineering technology scholarship program was initiated at Western Kentucky University. This program made an opportunity available to the department to pursue technologists for staffing the engineering support programs for the department. The program administration was similar to that at UK with the graduates obtaining a Bachelor of Science degree in Civil Engineering Technology (BSCET).

Five individuals received scholarships the first year, and four went on to graduate. The program at WKU is active at the present time.

Also, in 1969, a pilot program was established at the University of Louisville to provide information on the relative merits of a scholarship program versus the existing co-op system. UL scholarship recipients could receive a Bachelor of Science degree in Civil Engineering (BSCE) or a Master of Engineering degree (MENG), while one recipient received a BSCET degree. Five students were chosen the first year and four went on to graduate. The program at UL was on a small scale and ended in 1973 due to administrative problems and lack of interest.

Beginning in 1976, a dual-degree program was initiated at Kentucky State University in an effort to recruit minority engineers for the Department. Students take three years of pre-engineering courses at KSU, then transfer to the University of Kentucky for two years of engineering study. After successful completion of the first year at UK, students receive a Bachelor of Science in Applied Mathematics from KSU, then receive a BSCE degree from UK upon completion of the second year at that school. Five individuals received scholarships the first year. The program at KSU is presently active.

Program Administration

At the start of the program, the Department expected those graduating to serve for a reasonable time but no obligation was required. Beginning in September 1952, all recipients were required to sign an agreement to serve the Department at least one year after graduation. The student's parent was asked to co-sign. This was only a moral obligation, as recipients could not be held to their agreements. Beginning in 1965, a legally enforceable arrangement was initiated in which the student and the Department entered into a formal contract. Again, the minor student's parents were asked to co-sign. This contractual agreement is still in effect; the student agrees to work for the Transportation Cabinet one year for each year of the scholarship. Students who do not complete a BSCE degree or do not accept permanent employment with the Transportation Cabinet after graduation are required to repay the stipend monies they have received.

Industry scholarship recipients received no department funds, and though they could work for the department during the summers and were considered to be scholarship students in all other respects, they had no obligation to work for the state after graduation.

Initially, the program was coordinated through the Division of Research (now the Kentucky Transportation Center) because of their location on the University of Kentucky campus. In 1965, this task was

assumed by the Office of Personnel Management. In 1976, coordination of the program was returned to the Division of Research where it remained until the Division of Research was transferred to UK on January 1, 1981. Since that time, the scholarship program has been coordinated by the central office, presently in the Division of Specialized Programs of the Transportation Cabinet.

Recent Years—Curtailment, Reinstatement and Growth

The program continued without interruption from 1948 through 1979. In 1980, Governor John Y. Brown, Jr., and Transportation Secretary Frank Metts decided to curtail the program. Students already in the program were allowed to continue on stipend as long as their grades were satisfactory, but no new applications were to be taken. Summer jobs were not provided for scholarship students, and only 15 graduating students were offered employment. Between May 1980 and August 1983, sixty-one graduates were informed that permanent employment was not available and they were released from their obligation to work or refund their scholarships.

Early in 1984, Governor Martha Layne Collins and Transportation Secretary Floyd Poore directed resumption of the scholarship program. A formal agreement was made by and between the Transportation Cabinet and the UK College of Engineering on March 19, 1984. The program was resumed at three schools—civil engineering scholarships at UK, pre-engineering scholarships at Kentucky State University, and civil engineering technology scholarships at Western Kentucky University. New scholarships were awarded beginning in the fall of 1984. The program, which was reinstated at a reduced level, was expected to provide approximately half of the Cabinet's annual need for graduate engineers and engineering technologists, with the remainder to be employed through normal recruiting efforts. This was intended to allow adjustments due to variations in funding and workload in the numbers of engineers and technologists recruited, while allowing the scholarship program to be stable and not subject to large annual variations. The size of the program is controlled by using an annual survey of the Cabinet's staffing needs to establish the number of new scholarships to offer each year.

The size of the program has gradually increased at UK since 1984. Fifty-four civil engineering students received scholarships for the 1991 fall semester. They include several transfer students from Western Kentucky University and Kentucky State University, where the programs have increased at each school and now range from 10 to 15 scholarship students per year.

A graduate scholarship program (similar to the undergraduate program except students were to receive a stipend of \$800 per month and would incur a two-year work obligation per year on scholarship) was approved for the 1989-90 academic year to study Construction Engineering and Management at UK, and was available for 1990-91. No acceptable applications were received. Changes in the basic provisions are being considered to make it more attractive.

Basic Provisions of Program

Scholarships are awarded in March of each year for the following school year. Brochures and applications are forwarded to high school and college guidance counselors throughout the state. Applicants must be a Kentucky resident, graduate of an accredited Kentucky high school and must meet the admission requirements of the College of Engineering. Successful applicants normally have qualifications considerably higher than college minimums. Prior academic performance is the primary selection criterion. Selections are made on a statewide, competitive basis by a scholarship selection committee within the CE Department. Continuing students normally are renominated, provided their academic and summer work experience assignments are satisfactory.

The scholarship students agree to work full time for the Cabinet immediately after graduation for at least one year for each school year the student is on scholarship. The Transportation Cabinet provides summer employment with salaries commensurate with the students' qualifications and experience. Monthly summer salaries currently range from \$937 for freshmen to \$1,234 for seniors. Students typically work 3-1/2 months.

At various times, the stipend amounts were increased to stay abreast of increases in the cost to attend school. For the 1991-92 school year, monthly stipend amounts for undergraduates (paid during school) were \$410 for freshmen and sophomores and \$470 for juniors and seniors.

Typically, a scholarship student will work 3-1/2 months during the summer and receive a stipend for 8-1/2 months during the school year. The total value of the yearly program per student ranges from \$6,765 for freshmen to \$8,314 for seniors. Both the summer salary and stipend are taxable. Students at Western Kentucky University and Kentucky State University receive identical salaries and stipends as those received by UK students. The 54 UK students will receive a total of \$206,000 in stipends this school year.

Quality of the Product has been Excellent

The scholarship program has produced engineering graduates of unusually high quality, nearly always among the best in the college. There is a large pool of applicants, therefore, keen competition. The standards of performance to maintain scholarship are high. Scholarship students are normally highly dedicated and motivated.

Many scholarship students have fulfilled their work obligation. A large percentage of the Cabinet's present force of 400 engineers is composed of former scholarship recipients. Many scholarship students made their careers with the Department, some of whom have retired as career employees. This has provided the Department (Cabinet) with engineering personnel whose caliber would be difficult to match if the Department were competing in the marketplace for these people. Simple calculations show that the Scholarship Program was and will be a far more cost-effective program of providing for engineering manpower needs than competing with industry and the Federal Government in the marketplace.

Many former scholarship students hold or have held responsible positions in the Department. These include state highway engineers, assistant highway engineers, division directors, district engineers, and Division of Research (Kentucky Transportation Center) principal investigators.

The summer work provided to scholarship recipients provides on-the-job training before graduation, provides a work force to take care of seasonal needs, allows for preliminary evaluation of capabilities, and helps many needy students.

Associated benefits to the Commonwealth also has accrued. The Scholarship Program has produced many fine engineers who currently serve the Commonwealth in other areas (e.g., Natural Resources and Environmental Protection); entered private practice, and do contract consulting and construction work for the Department, other departments, and the private sector; work for municipalities and counties in the Commonwealth as public works engineers; take leadership roles in local, state, and national professional and technical societies (e.g., the past president of the National Society of Professional Engineers was a scholarship student); and have become engineering faculty (e.g., four of the 20 faculty in Civil Engineering at UK are former scholarship students).

Valuable to UK Department of Civil Engineering

Some 1,098 civil engineering students have received transportation scholarships at the University of Kentucky, many for two or more years provided they continued to meet academic standards. Each year, several

of the best qualified high school seniors in the state are attracted to the program as freshmen. A limited number of junior scholarships are available to outstanding transfer students. This enhances the quality of UK's civil engineering students, while providing a select recruiting base of civil engineers for the Transportation Cabinet.

This is the largest scholarship program in the CE Department and supports approximately 20 percent of our undergraduate students including many of our best students. In addition, the publicity of the program promotes interest in the civil engineering profession within the state and helps attract high-quality students for the CE Department.

The CE Department values the support of the Transportation Cabinet and the favorable image that continues to emerge from the relationship as the Scholarship Program nears a half-century of prominence. Scholarship applications are available from the CE Department office, the 12 transportation cabinet district offices, and from counselors at accredited high schools and colleges throughout the state.

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