

THE OKLAHOMA ACADEMY OF SCIENCE: A HISTORY

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ORGANIZATION

The Oklahoma Academy of Science was organized in 1909. At that time the State and its first educational institutions were less than 20 years old. One of the first acts of the Legislature of the young State was to establish basic institutions. Among these were the University at Norman, authorized actually by the Territorial Legislature in 1890, the A & M College at Stillwater, and the six teachers colleges at Edmond, Weatherford, Alva, Ada, Durant, and Tahlequah. In addition, a junior college, Northern Oklahoma College, was established at Tonkawa in 1901, a medical school in Norman in 1910 (moved to Oklahoma City in 1928), and a women's college in Chickasha in 1908. While other colleges were eventually created, these were the first institutions to be a vital part of the new Oklahoma Academy.

The first meeting of the Academy was organizational. It was led by Dr. H. H. Lane, Head of the Department of Zoology at O.U. He and 20 representatives of other institutions spent two days in Oklahoma City discussing the need for an academy of science which would bring together the scientists of the state periodically to exchange and share ideas. The plan was that Oklahoma scientists, both academic and professional, would meet once a year to present and listen to reports, whatever the nature, but particularly information related to the State. The result was the establishment of a cadre of officers to plan and execute future meetings. Thus began the Oklahoma Academy of Science, which has functioned up to the present time. The list of all principal officers is given in Table 1.

TABLE 1. *Officers and meeting places — Oklahoma Academy of Science.*

1909. Organized Dec. 30-31, at a meeting called by H. H. Lane and attended by 20 other scientists in Oklahoma City.
 1910. Pres. H. H. Lane, O. U.; Sec. F. B. Isely, N.O.J.C.; Treas. H. I. Jones, O.A.M.C. Meeting place, O.U.

1911. Pres. D. W. Ohern, Ok. City; Sec. F. B. Isely, N.O.J.C.; Treas. H. I. Jones, O.A.M.C. Meeting place, C.S.C.
 1912. Pres. S. W. Reaves, O.U.; Sec. F. B. Isely, N.O.J.C.; Treas. H. I. Jones, O.A.M.C. Meeting place, O.A.M.C.
 1913. Pres. C. W. Shannon, O. U.; Sec. A. F. Reiter, P.U.; Treas. H. H. Lane, O.U. Meeting place, P.U.
 1914. No meeting
 1915. Pres. C. W. Shannon, O.U.; Sec. A. F. Reiter, P.U.; Treas. H. H. Lane, O.U. Meeting place, Ok. City.
 1916. Pres. C. N. Gould, O.U.; Sec. G. K. Stanton, P.U.; Treas. H. H. Lane, O.U. Meeting place, Ok. City.
 1917. Pres. L. C. Raiford, Iowa St. Coll.; Sec. L. B. Nice, O.U.; Treas. H. H. Lane, O.U. Meeting place, O.U.M.S.
 1918. No meeting
 1919. No meeting
 1920. Pres. M. M. Wickham, Norman; Sec. L. B. Nice, O.U.; Treas. R. O. Whitenton, O.A.M.C. Meeting place, Ok. City.
 1921. Pres. A. F. Reiter, P.U.; Sec. L. B. Nice, O.U.; Treas. R. O. Whitenton, O.A.M.C. Meeting places, Norman, Ok. City.
 1922. Pres. J. B. Thoburn, Ok. City; Sec. L. B. Nice, O.U.; Treas. H. L. Dodge, O.U. Meeting places, O.U.M.S. and O.U. Norman; Chm. Pub. Comm. A. Richards, O.U.
 1923. Pres. R. O. Whitenton, O.A.M.C.; Sec. L. B. Nice, O.U.; Treas. H. C. Roys, O.U. Meeting place, O.C.U.; Chm. Pub. Comm., A. Richards, O.U.
 1924. Pres. S. Weidman, O.U.; Sec. L. B. Nice, O.U.; Treas. J. K. Britenbecker, O.U. Meeting place, O.U.; Chm. Pub. Comm. W. Schriever, O.U.
 1925. (Spring) Pres. C. E. Sanborn, O.A.M.C.; Sec. A. Richards, O.U.; Treas. F. W. Padgett, O.U.; Meeting place, O.A.M.C.; Chm. Pub. Comm., A. O. Weese, O.U. Meeting place, O.A.M.C.
 1925. (Fall) Pres. H. L. Dodge, O.U.; Sec. A. Richards, O.U.; Treas. F. G. Brooks, O.C.U.; Chm. Pub. Comm. A. O. Weese, O.U. Meeting place, O.A.M.C.
 1926. Pres. J. H. Cloud, O.A.M.C.; Sec. A. Richards, O.U.; Treas. Herbert Patterson, O.A.M.C. Chm. Pub. Comm. A. O. Weese, O.U. Meeting place O.A.M.C.
 1927. Pres. C. N. Gould, O.U.; Sec.-Treas. A. Richards (Presumed), O.U.; Asst. Sec.-Treas. Herbert Patterson, O.A.M.C. Meeting place, O.U.
 1928. Pres. O. M. Smith, O.A.M.C.; Sec.-Treas. Herbert Patterson, O.A.M.C.; Asst. Sec.-Treas. A. I. Ortenburger, O.U.; Ed. A. O. Weese, O.U. Meeting place O.A.M.C.
 1929. Pres. A. Richards, O.U.; Sec.-Treas. Herbert Patterson, O.A.M.C.; Asst. Sec.-Treas.

- A. I. Ortenburger, O.U.; Ed. M. G. Smith, O.U. Meeting place, O.U.M.S.
1930. Pres. LeRoy Long, Ok. City; Sec.-Treas. Herbert Patterson, O.A.M.C.; Asst. Sec.-Treas. A. I. Ortenburger, O.U.; Ed.* O.U. Meeting place, T.U.
1931. Pres. A. O. Weese, O.U.; Sec.-Treas. Herbert Patterson, O.A.M.C.; Asst. Sec.-Treas. H. J. Harper, O.A.M.C.; Ed.* O.U. Meeting place, O.A.M.C.
1932. Pres. Herbert Patterson, O.A.M.C.; Sec.-Treas. H. J. Harper, O.A.M.C.; Asst. Sec.-Treas. Duane Roller, O.U.; Ed.* O.U. Meeting place, O.U.
1933. Pres. J. E. Knowles, P.U.; Sec.-Treas. H. J. Harper, O.A.M.C.; Asst. Sec.-Treas. Duane Roller, O.U.; Ed.* O.U. Meeting place, O.A.M.C.
1934. Pres. F. G. Brooks, O.C.U.; Sec.-Treas. H. J. Harper, O.A.M.C.; Asst. Sec.-Treas. Duane Roller, O.U.; Ed. A. O. Weese, O.U. Meeting place, O.U.
1935. Pres. C. E. Decker, O.U.; Sec.-Treas. H. J. Harper, O.A.M.C.; Asst. Sec.-Treas. G. A. Van Lear, Jr., O.U.; Ed. Duane Roller, O.U.; Chm. H. S. Rel. Comm. Edith R. Force, Tulsa H.S. Meeting place, O.U.
1936. Pres. H. J. Harper, O.A.M.C.; Sec.-Treas. G. L. Cross, O.U.; Asst. Sec.-Treas. Icko Iben, O.A.M.C.; Ed.* O.U. Meeting place, O.A.M.C.
1937. Pres. B. D. Barclay, T.U.; Sec.-Treas. G. L. Cross, O.U.; Asst. Sec.-Treas. Icko Iben, O.A.M.C.; Ed.* Meeting place, O.U.
1938. Pres. C. M. Perry, O.U.; Sec.-Treas. G. L. Cross, O.U.; Asst. Sec.-Treas. H. I. Featherly, O.A.M.C.; H. S. Rel. Comm. O. M. Clark, Bristow and J. G. Harlow, Ok. City H.S.; Ed. A. O. Weese, O.U. Meeting place, O.A.M.C.
1939. Pres. H. D. Chase, T.U.; Sec.-Treas. G. L. Cross, O.U.; Asst. Sec.-Treas. H. I. Featherly, O.A.M.C.; H. S. Rel. Comm. O. M. Clark, Bristow and J. G. Harlow, Ok. City, H.S.; Ed. A. O. Weese, O.U. Meeting place, T.U.
1940. Pres. G. L. Cross, O.U.; Sec.-Treas. H. I. Featherly, O.A.M.C.; Asst. Sec.-Treas. C. A. Whitmer Jr., H. S. Rel. Comm. O. M. Clark, Bristow and J. G. Harlow, Ok. City H.S.; Ed. O. C. Dermer, O.A.M.C. Meeting place O.U.
1941. Pres. R. W. Jones, O.A.M.C.; Sec.-Treas. H. I. Featherly, O.A.M.C.; Asst. Sec.-Treas. C. A. Whitmer, Jr., O.U.; H. S. Rel. Comm. O. M. Clark, Bristow and J. G. Harlow, Ok. City H.S.; Ed. O. C. Dermer, O.A.M.C. No meeting.
1942. Pres. H. I. Featherly, O.A.M.C.; Sec.-Treas. C. A. Whitmer Jr., O.U.; Asst. Sec.-Treas. J. T. Self, O.U.; Chm. H. S. Rel. Comm. J. G. Harlow, Ok. City, H.S.; Ed. O. C. Dermer, O.A.M.C. No meeting.
1943. Pres. O. F. Evans, O.U.; Sec.-Treas. O. C. Dermer, O.A.M.C.; Asst. Sec.-Treas. J. T. Self, O.U.; Chm. H. S. Rel. Comm. J. G. Harlow, Ok. City, H.S.; Ed. R. C. Hughes, O.A.M.C. Meeting place, O.U.
1944. Pres. V. G. Heller, O.A.M.C.; Sec.-Treas. O. C. Dermer, O.A.M.C.; Asst. Sec.-Treas. J. T. Self, O.U.; Chm. H. S. Rel. Comm. Merle Boyer, Edmond H.S.; Ed. R. C. Hughes, O.A.M.C. No meeting.
1945. Pres. J. R. Nielsen, O.U.; Sec.-Treas. J. T. Self, O.U.; Asst. Sec.-Treas. R. C. Hughes, O.A.M.C.; Chm. H.S. Rel. Comm. Merle Boyer, Edmond H.S. Meeting place, O.U.
1946. Pres. O. C. Dermer, O.A.M.C.; Sec.-Treas. J. T. Self, O.U.; Asst. Sec.-Treas. R. C. Hughes, O.A.M.C.; Chm. H.S. Rel. Comm. B. L. Shepherd, Tulsa H.S.; Ed. R. C. Hughes, O.A.M.C. Meeting place, O.U.
1947. Pres. J. T. Self, O.U.; Sec.-Treas. R. C. Hughes, O.A.M.C.; Asst. Sec.-Treas. H. W. Larsh, O.U.; Perm. Sec. A. O. Weese, O.U.; Chm. H.S. Rel. Comm. Sr. Marian Maloney, Monte Cassino, Tulsa; Ed. R. C. Hughes, O.A.M.C. Meeting place, O.A.M.C.
1948. Pres. L. S. McLeod, T.U.; Sec.-Treas. R. C. Hughes, O.A.M.C.; Asst. Sec.-Treas. H. W. Larsh, O.U.; Perm. Sec. A. O. Weese, O.U.; Chm. H.S. Rel. Comm. Sr. Marian Maloney, Monte Cassino, Tulsa; Ed. R. C. Hughes, O.A.M.C. Meeting place, T.U.
1949. Pres. J. C. Shirley, P.U.; Sec.-Treas. H. W. Larsh, O.U.; Asst. Sec.-Treas. S. P. Massie, L.U.; Perm. Sec. A. O. Weese, O.U.; Chm. H.S. Rel. Comm. Sr. Marian Maloney, Monte Cassino, Tulsa; Ed. J. G. Harlow, O.U. Meeting place, P.U.
1950. Pres. Howard Taylor, O.C.W.; Sec.-Treas. H. W. Larsh, O.U.; Asst. Sec.-Treas. S. P. Massie, L.U.; Perm. Sec. A. O. Weese, O.U.; Ed. J. G. Harlow, O.U. Meeting place, O.C.W.
1951. Pres. H. W. Larsh, O.U.; Sec.-Treas. S. P. Massie, L.U.; Asst. Sec.-Treas. R. E. Olson, O.U.; Perm. Sec. A. O. Weese, O.U.; Ed. J. G. Harlow, O.U. Meeting place, O.U.
1952. Pres. V. B. Monnett, O.A.M.C.; Sec.-Treas. S. P. Massie, L.U.; Asst. Sec.-Treas. R. E. Olson, O.U.; Perm. Sec. A. O. Weese, O.U.; Ed. J. G. Harlow, O.U. Meeting place, O.A.M.C.
1953. Pres. S. P. Massie, L.U.; Sec.-Treas. R. E. Olson, O.U.; Asst. Sec.-Treas. D. E. Howell, O.A.M.C.; Perm. Sec. A. O. Weese, O.U.; Ed. L. M. Rohrbaugh, O.U. Meeting place, O.B.U.
1954. Pres. A. N. Murray, T.U.; Sec.-Treas. R. E. Olson, O.U.; Asst. Sec.-Treas. D. E. Howell, O.A.M.C.; Perm. Sec. A. O. Weese, O.U.; Ed. Orville Schultz, O.A.M.C. Meeting place, T.U.
1955. Pres. R. E. Olson, O.U.; Sec.-Treas. D. E. Howell, O.A.M.C.; Asst. Sec.-Treas. P. E. Smith, O.U.M.S.; Perm. Sec. A. O. Weese, O.U.; Ed. Orville Schultz, O.A.M.C. Meeting place, O.U.
1956. Pres. A. M. Stebler, O.A.M.C.; Sec.-Treas. D. E. Howell, O.A.M.C.; Asst. Sec.-Treas. P. E. Smith, O.U.M.S.; Perm. Sec. R. E. Olson, O.U.; Ed. Orville Schultz, O.A.M.C. Meeting place, O.A.M.C.
1957. Pres. D. E. Howell, O.A.M.C.; Sec.-Treas. P. E. Smith, O.U.M.S.; Asst. Sec.-Treas. D. E. Mitchell, Continental Oil Co., Ponca City. Perm. Sec. J. T. Self, O.U.; Ed. Orville Schultz, O.A.M.C. Meeting place, P.U.
1958. Pres. G. J. Goodman, O.U.; Sec.-Treas. P. E. Smith, O.U.M.S.; Asst. Sec.-Treas. R. W. Keltling, T.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.U.
1959. Pres. Elmer Lucas, O.U.; Sec.-Treas. R. W.

- Kelting, T.U.; Asst. Sec.-Treas. A. D. Buck, N.O.J.C.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.U.M.S.
1960. Pres. P. E. Smith, O.U.M.S.; Sec.-Treas. R. W. Kelting, T.U.; Asst. Sec.-Treas. A. D. Buck, N.O.J.C.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.U.M.S.
1961. Pres. E. M. Hodnett, O.S.U.; Sec.-Treas. A. D. Buck, N.O.J.C.; Asst. Sec.-Treas. C. R. Williams, P.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.S.U.
1962. Pres. H. G. Barclay, T.U.; Sec.-Treas. A. D. Buck, N.O.J.C.; Asst. Sec.-Treas. C. R. Williams, P.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, T.U.
1963. Pres. G. A. Moore, O.S.U.; Sec.-Treas. C. R. Williams, P.U.; Asst. Sec.-Treas. R. C. Fite, O.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.U.
1964. Pres. A. D. Buck, N.O.J.C.; Sec.-Treas. C. R. Williams, P.U.; Asst. Sec.-Treas. R. C. Fite, O.S.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, N.O.J.C.
1965. Pres. J. E. Webster, O.S.U.; Sec.-Treas. R. C. Fite, O.S.U.; Asst. Sec.-Treas. Doyle Anderegg, O.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.S.U.
1966. Pres. C. R. Williams, P.U.; Sec.-Treas. R. C. Fite, O.S.U.; Asst. Sec.-Treas. D. E. Anderegg, O.U. Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.U.
1967. Pres. C. D. Riggs, O.U.; Sec.-Treas. D. E. Anderegg, O.U.; Asst. Sec.-Treas. Paul Buck, T.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, O.C.U.
1968. Pres. E. A. Reynolds, S.W.S.C.; Sec.-Treas. Paul Buck, T.U.; Asst. Sec.-Treas. Moody Coffman, O.C.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, T.U.
1969. Pres. L. V. Scott, O.U.M.S.; Sec.-Treas. Paul Buck, T.U.; Asst. Sec.-Treas. Moody Coffman, O.C.U.; Perm. Sec. J. T. Self, O.U.; Ed. G. A. Moore, O.S.U. Meeting place, C.S.C.
1970. Pres. C. C. Carpenter, O.U.; Sec.-Treas. Moody Coffman, O.C.U.; Asst. Sec.-Treas. James Lovell, S.W.S.C.; Perm. Sec. J. T. Self, O.U.; Ed. D. E. Kizer, N.F. Meeting place, O.S.U.
1971. Pres. Paul Buck, T.U.; Sec. Moody Coffman, C.S.U.; Asst. Sec. James Lovell, O.S.W.S.U.; Exec. Sec.-Treas. J. T. Self, O.U.; Ed. D. E. Kizer, N.F. Meeting place, O.U.
1972. Pres. W. A. Carter, E.C.O.S.U.; Rec. Sec. J. R. Estes, O.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place S.W.O.S.U.
1973. Pres. C. J. Mankin, O.U.; Rec. Sec. Barbara Shirley, T.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, O.S.U.
1974. Pres. N. N. Durham, O.S.U.; Rec. Sec. T. H. Milby, O.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, S.E.O.S.U.
1975. Pres. Barbara Shirley, T.U.; Rec. Sec. Mickey Cooper, C.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, T.U.
1976. Pres. G. W. Todd, O.S.U.; Rec. Sec. Mickey Cooper, C.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, N.W.O.S.U.
1977. Pres. D. E. Kizer, N.F.; Rec. Sec. Richard Couch, O.R.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, N.E.O.S.U.
1978. Pres. G. V. Odell, O.S.U.; Rec. Sec. Everett Grigsby, N.E.O.S.U.; Exec. Sec.-Treas. James Lovell, S.W.O.S.U.; Ed. D. E. Kizer, N.F. Meeting place, O.S.U.
1979. Pres. Richard Couch, O.R.U.; Rec. Sec. Duane Thurman, O.R.U. Exec. Sec.-Treas. D. E. Kizer, N.F.; Ed. D. E. Kizer, N.F. Meeting place, C.S.U.
1980. Pres. Gary Wolgamott, S.W.O.S.U.; Rec. Sec. J. D. Tyler, C.U., Exec. Sec.-Treas. D. E. Kizer, N.F.; Ed. Glenn W. Todd, O.S.U. Meeting place, O.U.
1981. Pres. Elroy Rice, O.U.; Rec. Sec. Leo Hall, P.U.; Exec. Sec.-Treas. D. E. Kizer, N.F.; Ed. Glenn W. Todd, O.S.U. Meeting place, O.U.

*No reliable record of who was editor, but probably it was A. O. Weese, O.U.

The custom of the Academy has been to meet annually, usually in the fall, for presentation of scientific reports from both natural and social sciences. While a few nonacademic people have attended, the membership and the programs have been primarily from colleges and universities. Until very recently, there has been very little participation of industrial scientists. Furthermore, the natural scientists, especially biologists, have been the predominant participants in the annual Academy programs. The Spring Meeting, of a different nature, will be discussed later.

Table 2 reflects institutional connections with Academy affairs. It is obvious that State-supported institutions have provided the impetus for Academy progress. It should be noted, however, that such others as Phillips University, Oklahoma City University, and the Noble Foundation have been active supporters.

Very early it was necessary for the Academy to segregate interest groups because of the increased number of papers presented at the annual meetings. In 1925 there were sections in Biology, Geology, Physical Sciences and Social Sciences. The following year (1926) the following sections were

permanently established: A, Biology; B, Geology and Geography; C, Physical Sciences; and D, Social Sciences. Other sections were added later: E, Science Education, 1949; F, Geography, 1952; G, Wildlife Conservation, 1955; H, Microbiology, 1962; I, Engineering Sciences, 1963; J, Biochemistry-Biophysics, 1964; K, Electron Microscopy; L, Physiological Sciences, 1978; and M, Oklahoma Junior Academy of Science, 1980.

The proliferation of sections reflects Academy growth, especially after World War II. Some sections, especially A, have grown to the point of requiring subsections, notably in Botany, Zoology, and Physiology. The original scheme of administration (Table 1) was to have a President, a Secretary, and a Treasurer. Before many years a Chairman was elected for each section, to arrange and preside over sectional meetings. In 1927 the office of Assistant Secretary-Treasurer was established and in 1928 the offices of Secretary and Treasurer were combined to provide a Secretary-Treasurer and an Assistant Secretary-Treasurer. Up to 1947 sectional Chairmen were called Vice-Presidents. In 1948 their designation was changed to Chairmen and a Vice-Presidency was established; the holder of this office was expected to become President the following year. In 1966 the name of the office was changed to President-Elect.

In 1947 the Academy recognized the need for more continuity in leadership. Elected officers sometimes left the state before serving their terms of office, and in any case most of them were new each year. Thus the Academy found itself in need of an officer with continuous tenure who could speak relative to past events and policies. The office of Permanent Secretary

TABLE 2. *Abbreviations used in this report.*

A.A.A.S.	American Association for the Advancement of Science, Washington, D.C.
B.N.C.	Bethany Nazarene College, Bethany
C.A.M.I.	Civil Aeromedical Institute, Oklahoma City
C.S.C.	Central State College, Edmond
C.S.U.**	Central State University, Edmond
C.U.	Cameron University, Lawton
E.C.O.S.U.**	East Central Oklahoma State University, Ada
E.C.S.C.	East Central State College, Ada

F.S.F.	Frontiers of Science Foundation of Oklahoma, Oklahoma City
L.U.	Langston University, Langston
N.E.O.S.U.**	Northeastern Oklahoma State University, Tahlequah
N.E.S.C.	Northeastern State College, Tahlequah
N.F.	Noble Foundation, Ardmore
N.O.J.C.	Northern Oklahoma Junior College, Tonkawa
N.S.F.	National Science Foundation, Washington, D. C.
N.W.O.S.U.**	Northwestern Oklahoma State University, Alva
N.W.S.C.	Northwestern State College, Alva
O.A.M.C.	Oklahoma A & M College, Stillwater
O.B.U.	Oklahoma Baptist University, Shawnee
O.C.C.	Oklahoma Christian College, Oklahoma City
O.C.U.	Oklahoma City University, Oklahoma City
O.C.W.	Oklahoma College for Women, Chickasha
O.G.S.	Oklahoma Geological Survey, Norman
O.J.A.S.	Oklahoma Junior Academy of Science
O.M.R.F.	Oklahoma Medical Research Foundation, Oklahoma City
O.P.S.U.	Oklahoma Panhandle State University, Goodwell
O.R.U.	Oral Roberts University, Tulsa
O.S.U.*	Oklahoma State University, Stillwater
O.U.	University of Oklahoma, Norman
O.U.M.S.	University of Oklahoma School of Medicine, Oklahoma City
P.U.	Phillips University, Enid
S.E.O.S.U.**	Southeastern Oklahoma State University, Durant
S.E.S.C.	Southeastern State College, Durant
S.M.E.	Science and Mathematics Education
S.W.O.S.U.**	Southwestern Oklahoma State University, Weatherford
S.W.S.C.	Southwestern State College, Weatherford
T.U.	University of Tulsa, Tulsa
U.S.A.O.***	University of Science and Arts of Oklahoma, Chickasha
V.S.P.	Visiting Scientist Program
W.M.W.L.R.	Wichita Mountains Wildlife Refuge

* Name of Oklahoma A. & M. College changed to Oklahoma State University, July 1957.

** Names of the six state colleges changed to universities, April, 1971.

*** Name changed from Oklahoma College for Women to University of Science and Arts of Oklahoma, 1965.

was established, patterned after a similar one in the A.A.A.S., with the term of office to be six years.

In 1971 the office of Permanent Secretary was changed to that of Executive Secretary-Treasurer. The office of Secretary-Treasurer was dropped and that of Recording Secretary was created, with the duties of keeping minutes of meetings.

In 1935, in recognition of needs for service to high school teachers and students, a High School Relations Committee was created. This committee and the student organizations it created and fostered are discussed later.

PUBLICATIONS

Up to 1921 the Academy had no publication other than programs of its meetings. In that year Volume 1 of the *Proceedings* was published, and succeeding volumes have appeared annually, except for three war years, since that time. The early volumes published some papers that had been presented at earlier Academy meetings but many such papers appeared elsewhere or not at all. Volume 1 (1921) also contained the Constitution and showed affiliation with the A.A.A.S. since 1910. In the same volume, C. W. Shannon described the organization of the Academy in 1909, where it had met annually, and the objectives of the Academy. He also pointed out that in 1915 incorporation was asked of the State Legislature, and while this was denied because certain legislators feared this would lead to a request for financial support, a charter was issued.*

The cost of publication of the *Proceedings* in early years was borne by O.U. This continued until 1930 when, because of scarcity of funds, the support was discontinued. Publication has been financed by the Academy since that time.

There is no record of a *Proceedings* Editor until 1922, when a chairman of an Editorial Committee was appointed. Since then there has been an official Editor assisted by representatives from the various sections. The Editor and his representatives are free also to ask other people for assistance in reviewing papers. The Editor prepares manuscript for publication and serves as the Academy representative to the publisher.

In its early days the *Proceedings* of the Academy was quite liberal in acceptance of manuscripts for publication. Thus there are many short notes of a multitude of observations made by members. While this has resulted in the *Proceedings* being thought of by many as unsophisticated, overall the records presented here form a body of history about Oklahoma not existing anywhere else.

In 1970 the Academy began a new publication. Symposia on topics of major interest and importance to the State have been organized and presented at the annual meetings of the Academy. The papers so presented are edited by special committees and published in the *Annals of the Oklahoma Academy of Science*. These Symposia and the *Annals* resulting up to the present have been as follows:

"Cell and Tissue Culture in Biology and Medicine"; presented in 1969 at C.S.C.; Ed. Paul F. Cruse, Jr., N.F. *Annals* No. 1, 1970.

"Environmental Aspects of Geology in Engineering"; presented in 1970 at O.S.U.; Ed. W. D. Rose, O.G.S. *Annals* No. 2, 1971.

"Radiation Science"; presented in 1972 at S.E.O.S.U.; Ed. George Gorin, O.S.U. *Annals* No 3, 1973.

"Recent Advances in Biochemical Pathology"; presented in 1973 at O.C.U.; Eds. N. N. Durham, O.S.U., and D. E. Kizer, N.F. *Annals* No. 4, 1974; published by O.G.S.

"Oklahoma Reservoir Resources"; presented in 1974 at S.E.O.S.U.; Eds. L. G. Hill, O.U., and R. C. Summerfelt, O.S.U. *Annals* No. 5, 1976; published by O.G.S.

"Grasses and Grasslands of Oklahoma"; presented in 1976 at N.W.O.S.U., Eds. J. R. Estes, O.U., and R. J. Tyrl, O.S.U. *Annals* No. 6, 1976, published by N. F.

PROGRAMS SUPPORTED BY THE NATIONAL SCIENCE FOUNDATION

In 1959 the National Science Foundation began support programs for Science and

*However, records in the Corporate Records Office of Oklahoma show that the Academy was granted corporate status July 8, 1913. They show further that reinstatement was granted August 8, 1959.

Mathematics Education (S.M.E.), administered through State Academies of Science. The Oklahoma Academy of Science became an active participant in these programs and over an 8-year period (1959-1967) received \$163,210 in support of these activities. Initially the Frontiers of Science Foundation of Oklahoma served as the contract institution; the program was administered by J. T. Self, O.U., Permanent Secretary of the Academy, as Director and Charles M. Bridges, Jr., O.U., as Field Secretary. James G. Harlow, O.U., and Executive Vice-President of the F.S.F., coordinated the project with the F.S.F. management.

In the first year (1959-60) the program consisted of 3 phases:

- I. The establishment of working groups of lay citizens — "The Community Power Leaders" — to develop community concern for the improvement of S.M.E.
- II. Activation of interest by community civic groups in the needs for improved S.M.E.
- III. Engagement of competent members of the communities in efforts toward S.M.E. improvement.

In Phase I, 2 regional working groups were established: one in the southeastern part of the state, involving 15 counties, and another in the southwest involving 9 counties. The groups, patterned after F.S.F. regional groups, were responsible for assuring community support for S.M.E. improvement.

In Phase II, efforts were directed to school superintendents and school boards.

In Phase III, lists of educational consultants were furnished school superintendents. On request these consultants visited teachers of S.M.E. and assisted in improvement of all aspects of S.M.E.

In Phase I, 30 community groups were visited. These were civic clubs, PTA's, school board associations, etc. This involved an equal number of consultants, from colleges and universities. At the same time a pool of 94 professional educators was formed from which consultants could be selected.

In 1961 the 1959-60 program and consultant services were extended to teacher groups and superior student groups. During the year 150 groups were visited, many of them several times, indeed the superior student groups for as many as 14 times. Meetings with citizens' groups were primarily for orientation but specific subjects were treated with the students, e.g. meteorology and modern mathematics. The program involved 640 group contacts by at least 1 consultant each, at times as many as 4. The program covered 12 counties and 42 communities. Sixty consultants participated.

In 1961-62 work was continued with community action groups and by the fiscal end there were 16 groups working in 50 counties. Work also continued with superior student groups. These involved 10 school systems including 23 schools and 10 consultants. A new consulting service was initiated for junior high school teachers and was extended to 10 school systems by 10 consultants. This program was partially supported by the local school systems.

Of primary importance was the initiation of a Scholarly Lectures Program under the title of "Man Ventures." This program was directed at lay groups interested in high-quality science lectures. Groups were limited to manageable size. Four lectures in scientific and philosophical subjects were presented in each of five geographical centers, and involved a total of 250 participants. Lecturers were selected on the basis of known competence in the subjects. The program was highly successful because communities were selected only if it was demonstrated that a competent and highly dedicated audience would participate. The latter consisted of editors, ministers, bankers, engineers, etc. The community leaders program was continued and 5 new groups were organized.

During 1962-63 the gifted-student programs were extended to 630 students in 177 contact periods. The teacher consulting program reached 350 S.M.E. teachers in 107 separate sessions. The lay citizens program was administered as follows:

1. Scholarly lectures were given in 9 towns; 675 people participated in 36 meetings.
2. Civic group meetings were held in 32 towns; 520 persons participated in 39 sessions.

3. Parent orientation sessions were attended by 450 people in 56 sessions.

By this time the program was well known in the state and most communities involved were contributing funds to it.

One program initiated was a television series of 15 programs over KETA and KOED out of Oklahoma City and Tulsa. It was estimated that 10,500 students in average groups of 30 listened to these programs in their classrooms. In all, 72 consultants participated in the entire program.

In 1963-64 teacher group orientation sessions were held in 25 communities. These were devoted primarily to new subject matter and its integration into established courses.

This outstanding program was given primarily in small communities and eventually course plans were provided the teachers. Fourteen programs were provided and 23 consultants participated.

By this time the program support from NSF had been reduced on the premise that civic groups were sufficiently activated and oriented to continue on their own. While the program did not continue in organized form it is believed to have exerted an important impact on state citizens, especially community leaders.

One group which it was hoped would support the program was that of school superintendents. While they generally tolerated it they did not become involved as a group. Not many took part in it and a few local superintendents openly opposed the program.

In the 1964-65 fiscal year important changes took place in the Academy S.M.E. Program. The N.S.F. limited its grant to 100 visits to schools for work with gifted students. This meant the loss of the Field Secretary. The program was transferred from the F.S.F. to the Academy as the contract institution. Mrs. Karen Janovy, who had served as secretary throughout the program, became, in effect, the Field Secretary. This assisted the Academy financially in that it received the overhead funds which had previously gone to the F.S.F.

Schools had come to expect the V.S.P. and it was not possible to meet the demand. The program was reorganized to emanate from regional colleges and universities so that the 100 visits covered the entire state. In all 14,716 student and 429 teacher contacts were made. Among these were 11 programs for superior students in 8 counties.

The V.S.P. of 1964-65 was continued in 1965-66. By 1964-65 matching funds were being provided by school systems and in 1965-66 the Academy was able to provide 200 visits throughout the state. There were 24,733 student and 792 teacher contacts in 55 of the 77 counties. In addition, on-campus visits were made by student groups from 31 schools. In all 1256 students and 30 teachers attended laboratory sessions at O.U. These sessions were staffed by 9 faculty members from the Department of Botany and Microbiology.

In 1966-67, the last year of N.S.F. support, 200 visits were provided for a V.S.P. This program was also supported by the Oklahoma State Department of Education. Eleven colleges and universities and 109 consultants participated. Contacts were made with 18,554 students and 681 teachers (of course, these figures for 1964-65 through 1966-67 do not represent that many people. In many instances a student or a teacher was contacted more than once).

The 8 years of N.S.F.-supported programs are believed to have had a significant impact on the cultural level of the state although the benefits are difficult to evaluate. Detailed data on these programs are in the Academy archives for study by interested persons.

One objective of the N.S.F. was to make state academies of science more functional. These efforts did indeed bring the academies into better focus locally and nationally. The National Academy Conference, the national organization of state academies, became more prominent under the influence of N.S.F. support of programs and its sponsorship of the Conference. It still is an important force in the Academy movement. It had been hoped that the State of Oklahoma would support the V.S.P. when the N.S.F. dropped it but this did not happen. However, because of the generosity of college and university faculty members, secondary schools continue to have scientist visits.

In this short account it has not been possible to name the many scientists and

mathematicians who served as consultants. It must be pointed out, however, that the support of these people was more than generous and their services, for which they received meager remuneration, were largely responsible for the success of the program.

SPRING MEETINGS

Traditionally a major annual event of the Academy is its Spring Meeting. This meeting, quite unlike the Fall Meeting emphasizing sectional paper sessions, is strictly informal. It is always held at an outdoor site where field trips and related activities are emphasized (Table 3). The people who attend these meetings are of two types. There are the professionals, primarily biologists, geologists, geographers, and archeologists. These conduct group field studies which are not only of scientific value but of interest to amateurs. The latter constitute the second type, people who generally are nonscientists or confined to other scientific activities but enjoy this annual opportunity to get out of doors and learn more about natural phenomena. Many of those who attend are competent in some such field as ornithology, paleontology, entomology, astronomy, etc., but others claim no special interest except that they "love nature".

Spring Meetings are usually held at such places as youth camps, an old abandoned hotel at a saw mill, or in the early days just a good location where people could camp. Clothing worn varies from the most sophisticated gear among the professionals to any old boots, sweaters, etc., people can dig up. At the early meetings people provided and cooked their own food but as the quality of youth camps, church camps, and park camps improved most meetings have been catered.

People who conduct such meetings do not feel it necessary to keep minutes so the content of this account derives primarily from the memories of old timers who have attended since the early days.

Because of the special interests of the participants, Spring Meetings have always been held in the least disturbed places possible. Especially before World War II these places often could be reached only over unpaved roads and across unbridged streams. Spring being the storm season in Oklahoma, these meetings were often drenched with torrential rains, whereupon roads became muddy and streams nonfordable. People got wet, stuck in the mud, and stranded by flooding creeks. Yet no one ever became unhappy and such eventful meetings left the fondest memories of all. It has been at the Spring Meetings also

TABLE 3. *Dates and locations of Spring Academy Meetings.*

1927.	Price's Falls, Murray County
1928.*	
1929.*	
1930.	W.M.W.L.R., Comanche County
1931.*	
1932.*	
1933.	Price's Falls, Murray County
1934.	W.M.W.L.R., Comanche County
1935.	Pine Valley, LeFlore County
1936.	Waurika Airport, Jefferson County
1937.	Robber's Cave, Latimer County
1938.*	
1939.	Cookson Hills Playground, Cherokee County
1940.	Camp Scott, Cherokee County
1941.	Camp McClintock, Osage County
1942.*	
1943.	WW II — no meeting
1944.	WW II — no meeting
1945.	WW II — no meeting
1946.	Lake Carl Blackwell, Payne County
1947.	Heart O' Hills Camp, Cherokee County
1948.	Camp Classen, Murray County
1949.	Locust Grove, Mays County
1950.	Camp Gruber, Muskogee County
1951.	Ada, Pontotoc County
1952.	Beaver's Bend, McCurtain County
1953.	Boiling Springs, Woodward County
1954.	O.U. Biological Station, Marshall County
1955.	Dwight Mission, Sequoyah County
1956.	Quartz Mountain, Greer County
1957.	Beaver's Bend, McCurtain County
1958.	Roman Nose, Blaine County
1959.	Camp Egan, Cherokee County
1960.	Camp Classen, Murray County
1961.	Robber's Cave, Latimer County
1962.	Boiling Springs, Woodward County
1963.	Dwight Mission, Sequoyah County
1964.	Methodist Camp (Devil's Canyon), Caddo County
1965.	O.U. Biological Station, Marshall County
1966.	Camp Gruber, Muskogee County
1967.	Quartz Mountain, Greer County
1968.	Osage Hills, Osage County
1969.	Goddard Youth Camp, Murray County
1970.	Camp Egan, Cherokee County
1971.	Beaver's Bend, McCurtain County
1972.	Roman Nose, Blaine County
1973.	Robber's Cave, Latimer County
1974.	Lake Arbuckle, Murray County
1975.	Lake Murray, Murray County
1976.	W.M.W.L.R., Comanche County
1977.	Greenleaf Lake, Muskogee County
1978.	Roman Nose, Blaine County
1979.	Beaver's Bend, McCurtain County
1980.	Black Mesa, Cimarron County

*Meeting place unknown

that highly important collections of plants, animals, fossils, etc. have been made, as well as new records of birds, plants and many other items.

Even though after World War II better facilities became available the spirit of Spring Meetings remains the same and many still shun the comforts of indoor bunks for tents or just sleeping bags under the stars.

The success of Spring Meetings has always depended on professional leaders in the various types of field studies. Prominent among such leaders have been those named as follows though not necessarily in chronological order of the periods of their services:

I. Biology

1. *Ecology*: A. O. Weese, O.U.; Martha Shackelford, O.C.W.; H. G. Barclay, T.U.; E. L. Rice, O.U.; W. T. Penfound, O.U.; Jerry Crockett, O.S.U.; Paul Buck, T.U.; Ralph Kelting, T.U.; H. I. Featherly, O.S.U.
2. *Plant Taxonomy*: G. J. Goodman, O.U.; H. G. Barclay, T.U.; H. I. Featherly, O.S.U.; John and Connie Taylor, S.E.O.S.U.; U. T. Waterfall, O.S.U.; Doyle McCoy, C.U.; D. M. Moore, U. of Ark.
3. *Phycology*: Dorothy Leake, O.U. & S.E.S.C.; G. J. Ikenberry, O.S.U.; I. V. Holt, O.C.W.; John Thomas, O.S.U.
4. *Ornithology*: T. C. Carter, N.W.S.C.; G. M. Sutton, O.U.; W. C. Carter, E.C.O.S.U.; Margaret Nice, O.U.; Fred and Margaret Baumgartner, O.S.U.; H. P. Brown, O.U.; J. D. Tyler, C.U.; E. R. Force, Tulsa H.S.
5. *Entomology*: D. E. Howell, O.S.U.; C. E. Hopla, O.U.; H. P. Brown, O.U.
6. *Ichthyology*: A. I. Ortenburger, O.U.; G. A. Moore, O.S.U.; C. D. Riggs, O.U.; L. G. Hill, O.U.; Robert Jenkins, O.U.; Frank Wade, S.E.O.S.U.; Jimmy Pigg, Moore H.S.
7. *Terrestrial Vertebrates*: B. P. Glass, O.S.U.; C. C. Carpenter, O.U.; Jeffrey Black, O.B.U.; A. N. Bragg, O.U.; H. D. Chase, T.U.
8. *Aquatic Invertebrates*: H. P. Brown, O.U.; A. N. Bragg, O.U.; J. G. Mackin, E.C.S.C.

II. Geology

C. N. Gould, O.U.; Robert Dott, O.U.; C. E. Decker, O.U.; Ray Six, O.S.U.; V. B. Monnett, O.S.U.; Carl Branson, O.U.; William Ham, O.U.; Elmer Lucas, O.U.; G. G. Huffman, O.U.

III. Geography

John Morris, O.U.; Leslie Hewes, O.U.; C. W. Thornthwaite, O.U.; C. J. Bollinger, O.U.; Ralph Strete, N.W.S.C.; Ralph Olson, O.U.

IV. Conservation

P. B. Sears, O.U.; A. M. Stebler, O.S.U.

V. Astronomy

H. S. Mendenhall, O.S.U.

THE COLLEGIATE ACADEMY OF SCIENCE

The Collegiate Academy of Science had its beginning in 1966 with the support of an N.S.F. grant of \$3,642. The grant was negotiated by J. T. Self, Executive Secretary of the Academy, who also directed the program. The program provided for visits by scientists and student groups from state colleges to research laboratories. One hundred students participated in groups of 8 or 9. The following research centers were visited: (a) C.A.M.I., Okla. City; (b) Texas Game and Fish Marine Lab., Fort Worth; (c) O.U. research labs, Norman; (d) O.M.R.F., Oklahoma City; (e) O.S.U. research labs, Stillwater; (f) Argonne National Lab., Chicago; (g) R. S. Kerr Water Resources Lab., Ada.

Participating scientists were as follows: D. H. D. Roller, O.U.; C. C. Carpenter, O.U.; Hubert Frings, O.U.; Elroy Rice, O.U.; G. H. Deckert, O.U.M.S.; J. R. Sokatch, O.U.M.S.; Mary Carpenter, O.M.R.F.; Wallace Friedberg, C.A.M.I.; John Thornton, O.S.U.; W. E. Collins, T.U. Participating students were from: B.N.C., C.S.C., E.C.S.C., N.E.S.C., N.O.J.C., N.W.S.C., O.C.L.A., O.C.C., O.C.U., O.P.S.U., P.U., S.E.S.C., S.W.S.C., and T.U.

The above program was limited to the 1966-67 academic year because NSF support was terminated after that year.

In 1968 the Executive Council of the Academy created a collegiate group in which undergraduate research papers could

be presented at the annual fall meetings. A Collegiate Academy (C.A.) committee was established with J. F. Lovell, S.W.O.S.U., as Chairman. Institutions were notified of the opportunity provided for undergraduates to present their papers and an award of excellence of \$25 for the outstanding paper was provided. Each participant received a certificate of commendation.

In 1970 Gary Wolgamott, S.W.O.S.U., became Chairman of the C. A. Committee but this section never met. Dr. Wolgamott proposed that the C.A. become simply an adjunct to the senior Academy. This was approved by the Academy and it has functioned since that time. Almost yearly recommendations have been made about financial support from the Senior Academy but only minimal funds have been granted. The general pattern has been that undergraduate groups have met at the fall Academy meetings, papers have been judged by Academy members, and recognition has been made of superior work.

This program is successful and constitutes an important adjunct to the Academy program. Since funding by the Academy has been small, awards are in the form of plaques. The call for papers, judging by committees, and small financial awards have kept the C.A. operative. As with all such programs success depends on strong aggressive leadership, which Dr. Wolgamott has provided.

THE OKLAHOMA JUNIOR ACADEMY OF SCIENCE

The name "Oklahoma Junior Academy of Science" has represented two clearly separate organizations, different in goals and outcomes as well as in time. Its history covers two periods: 1936 to 1946 and 1957 to the present.

The First Period, 1936-1946

In 1935, Edith R. Force, a Tulsa high school teacher, became Chairman of the New High School Relations Committee of the Academy. Under her dynamic influence an "Association of Science Students of the Oklahoma Academy of Science" was formed. The Academy was persuaded to invite members to attend its annual meetings. However, many Academy members objected to the "disruptions" resulting from the youthful exuberance of these high school students. The Academy leadership soon decided that direct participation by high school students was not necessary, and that the focus should be instead on science teachers. Under this directive, Miss Force separated her "Association of Science Students" from the Academy, and in 1937 announced the formation of the Oklahoma Junior Academy of Science, which joined the nationwide junior academy movement.

The state Junior Academy met yearly, the meeting including exhibit competition for science clubs, speakers, science demonstrations, and nature walks. Miss Force obtained an invitation from O.A.M.C. to hold the 1938 meeting on that campus at the same time the Senior Academy was meeting there. The relations between the Junior and Senior Academies were further strained by this conflict of schedule and interest.

In 1939, Miss Force was selected to participate in a teacher exchange program with England. Without her leadership and in the face of the war threat, enthusiasm for the Junior Academy waned. During the World War II years the program was essentially halted. There was little interest in the Senior Academy in reviving the O.J.A.S. and, without leadership and financial support, it died in 1946.

The Second Period, 1957-present

The idea of an Oklahoma Junior Academy of Science was resurrected in the junior academy movement spawned in the wake of "Sputnik". Fifteen scientific organizations in Oklahoma were invited to be represented at an organizational meeting. In January, 1958, representatives from 10 organizations met on the O.S.U. campus and the O.J.A.S. was reborn.

The new O.J.A.S. was quite different from the earlier version. Operating through an Advisory Committee composed of university faculty members, field scientists, and high school teachers, its declared purpose was to stimulate and challenge capable high school students by rewarding excellence in research efforts. Membership required conducting a research project and reporting it in writing to a screening committee of professional scientists. Invitation to join the Junior Academy was extended to students whose papers showed originality, sound research design, valid and ac-

ceptable conclusions, and good style. Selected students were invited to present their papers at an annual state meeting and such papers were printed in a *Transactions of the Oklahoma Junior Academy of Science*.

In February, 1957, a national conference on Junior Academies of Science was sponsored by the A.A.A.S. and the Oak Ridge Institute of Nuclear Studies at the Navy Pier in Chicago, to stimulate science endeavors among high school students through junior academies. Dr. Robert Fite, O.S.U., attended this conference and returned to become Chairman of the O.J.A.S. Advisory Committee and to serve as statewide coordinator/director. O.S.U. acted as host for annual meetings and provided support through Fite's office as Director of Arts and Sciences Extension. Without this considerable aid, the program might never have succeeded.

At the first annual meeting in May, 1958, 25 students were selected for membership and their papers appeared in Volume 1 of *Transactions of the Oklahoma Junior Academy of Science*.

For several years, the meetings were held at O.S.U., with increased student participation and sophistication and scope of research projects.

In 1960 Dr. Fite obtained an N.S.F. grant of \$2,000 for the operation of the O.J.A.S. program. Sixty-one students participated and copies of the *Transactions* were made available to school libraries and participants across the state. The A.A.A.S., through the Oklahoma Academy of Science, provided funds for small research grant awards to help students purchase needed supplies and equipment.

Several events then changed the focus of the Junior Academy from the "membership as a reward" concept toward an academic competition. The first was the formation in 1962 of the National Junior Academy of Science under A.A.A.S. sponsorship. Participating states were allowed 2 student representatives to present papers at the annual A.J.A.S. - A.A.A.S. national meetings so the papers had to be graded and the two best selected. Added impetus for such rating of papers came with the development of a National Youth Science Camp in West Virginia in 1963. Delegates from Oklahoma were selected by the O.J.A.S. at the direction of the Governor of Oklahoma.

In 1964 a study revealed that most of the superior students identified by the O.J.A.S. had chosen to attend colleges and universities outside Oklahoma (1). Jones suggested that scholarships might induce some of these bright students to stay in Oklahoma. Two \$200 scholarships were awarded in 1964 and the number increased to a maximum of six in 1968. The college scholarships could be used only in Oklahoma institutions and any unused funds reverted to the Academy for later use.

The N.S.F. support of junior academies dwindled and its travel support for the students selected to present papers at the National Junior Academy of Science was discontinued. Civic groups and individuals provided travel funds for many of these students. Financial problems increased, however, and in 1964 the O.J.A.S. was able to publish only a few papers in full and brief abstracts of the others in a special section of *Proceedings of the Oklahoma Academy of Science* (2). In 1965 the separate *Transactions* of the O.J.A.S. was revived, but from 1966 to 1970, the selected papers and abstracts were printed in the *Proceedings*.

The initial plan of rewarding excellence in high school science students with membership in an exclusive society and publication of members' papers in the *Transactions* had now evolved into a competition for trips, scholarships, and publication privileges. Although certificates of participation were still awarded to all state entrants, the honor of membership in a select organization was clearly overshadowed by the competition for prizes. In effect, the group selected for honor became smaller still.

By 1965 the leadership of the O.J.A.S. broadened; C. F. Jones coordinated the state meetings while Dr. Fite continued as Chairman of the Advisory Committee. In 1966, Dr. Jerry Crockett assumed the State Directorship, assisted by Col. C. H. Breedlove. The program of honorary membership, awards, and publication continued unchanged until 1970.

From 1970 to 1972, annual meetings were held but no *Transactions* were printed and

in 1971, the N.S.F. discontinued all support of the Junior Academy program. In 1973 the Noble Foundation took over publication of the *Transactions*. The 1973 volume of this new publication contained proceedings and selected papers from the 1970, 1971 and 1972 annual meetings. Only winning papers were published; all others were listed by title only. Solving the publication problem eased the financial crisis. Industrial and foundation gifts allowed the continuation of a program of meetings with less emphasis on scholarships and prizes.

In 1974, Dr. R. D. Dick, S.W.O.S.U., assumed the State Directorship. For the first time since its rebirth, the Junior Academy held its annual meeting on a campus other than that of O.S.U.

Dr. R. C. Jones of S.W.O.S.U. acted as State Director in 1975. No scholarships were awarded and only winning papers were published in the *Transactions*. The program continued under the Directorship of Dr. G. E. Castleberry, S.W.O.S.U., at a minimum level in 1976, but with two \$200 cash awards for outstanding papers.

Dr. Dick again served as State Director in 1977. Negotiations were begun to form an alliance with the Oklahoma Science and Engineering Fair, Inc., and a committee composed of Dr. Don Kellogg, Dr. Bud Patterson, and Dr. Dick was named to solicit endowment funds. In 1977 a new organization, the Oklahoma Junior Academy of Science and Engineering, was established to handle contributions from industries and foundations.

In 1977, the first joint meeting between the Oklahoma Science and Engineering Fair and the O.J.A.S. was held at E.C.O.S.U. The two organizations had produced an information booklet announcing the rules for student participation. At this meeting, two \$200 scholarships and two \$200 stipend awards were presented. For the first time in many years, the travel and other expenses of O.J.A.S. judges were paid. The O.J.A.S. now abandoned the scholarship program and instituted cash awards in its place.

The State Legislature, for the first time, appropriated operating funds for the O.J.A.S. and State Science Fair programs in 1977-78. The budget, \$6,500, permitted the hiring of secretarial help for the State Director as well as funding the trips of winning students, their sponsoring teachers, and the O.J.A.S. State Director to the A.A.A.S. meeting, and payment of expenses of state O.J.A.S. judges. The number of cash awards increased to four at \$200 and two at \$100. However, the responsibilities for communications, coordinating the state meeting, securing judges, arranging for publishing the *Transactions*, and planning and chaperoning the A.A.A.S. trip for the selected students all fell on the unpaid State Director.

In 1978-79, Dr. D. R. Krahn, S.W.O.S.U., became State Director. State funding of \$7,500 and the Noble Foundation's continued publication of the *Transactions* now relieved the financial stress on O.J.A.S. Newsletters to State science teachers were reinstated in 1978 and in the fall of 1979 several workshops on research techniques and science fair and O.J.A.S. programs were held. Spring meetings in 1979 and 1980 were held at E.C.O.S.U. and selection of A.A.A.S. and National Youth Science Camp delegates and awarding of cash prizes of various amounts were continued. Selected papers from the meetings were printed in the *Transactions*.

Since a survey had shown that many participating high school teachers and members of the Oklahoma Academy of Science believed that the O.J.A.S. should become a part of the Academy, Dr. Krahn and others in 1980 petitioned the Academy to admit the O.J.A.S. as a new Section. This was approved.

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Professor G. A. Moore, O.S.U., who assisted in establishing the names of spring meeting places.

To these people who gave generously of their time in the preparation of this report we offer sincere thanks.

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