

## Meetings of the MAA

### Ken Ross and Jim Tattersall

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#### MEETINGS 1915-1928

“A Call for a Meeting to Organize a New National Mathematical Association” was disseminated to subscribers of the *American Mathematical Monthly* and other interested parties. A subsequent petition to the Board of Editors of the *Monthly* contained the names of 446 proponents of forming the association. The first meeting of the Association consisted of organizational discussions held on December 30 and December 31, 1915, on the Ohio State University campus. 104 future members attended. A three-hour meeting of the “committee of the whole” on December 30 considered tentative drafts of the MAA constitution which was adopted the morning of December 31, with details left to a committee. The constitution was published in the January 1916 issue of *The American Mathematical Monthly, official journal of The Mathematical Association of America*. Following the business meeting, L. C. Karpinski gave an hour address on “The Story of Algebra.” The Charter membership included 52 institutions and 1045 individuals, including six members from China, two from England, and one each from India, Italy, South Africa, and Turkey.

Except for the very first summer meeting in September 1916, at the Massachusetts Institute of Technology (M.I.T.) in Cambridge, Massachusetts, all national summer and winter meetings discussed in this article were held jointly with the AMS and many were joint with the AAAS (American Association for the Advancement of Science) as well. That year the school had been relocated from the Back Bay area of Boston to a mile-long strip along the Cambridge side of the Charles River. The MAA was the first scientific body invited to meet at the new site. There were 126 persons in attendance at the various sessions, of whom 111 were members of the MAA. The meeting headquarters was in Riverbank Court in Cambridge where lunch cost 50¢ and dinner \$1.50. A letter circulated encouraging attendees to wear their name-buttons at the meeting, lunches, dinners, and excursions, for a most important function of the MAA is to widen the acquaintance of its members. Attendees were also urged not to wait for introductions. The following cablegram from Mittag-Leffler at Stockholm was read at the dinner: “Scandinavian mathematicians assembled at Stockholm send fraternal greetings to their American brother mathematicians.” A day after the meeting ended, the AMS summer meeting convened at Harvard College. AMS colloquium lectures were given by G. C. Evans and Oswald Veblen; each gave five lectures.

The first joint winter meeting in December 1916 was held at Columbia University with the AMS, Section A of AAAS and American Astronomy Society (AAS) during the winter break. The MAA regarded this as its second annual meeting. Until the 1950s, the AMS bylaws specified that their annual meetings be held between December 26

and December 31. The 184 attendees were treated to an exhibit of portraits and medals of mathematics from the David E. Smith collection. At the Park Avenue Hotel, 142 mathematicians and friends attended a joint dinner of the four organizations. Frank Nelson Cole, Secretary of the AMS observed that, the AMS meeting was “immediately followed by the second annual meeting of the newly organized Mathematical association (sic) of America, with which the Society has not only a large common membership but also a general community of interest highly beneficial to both.”

The 2nd summer meeting of the MAA was held in September 1917 at Adelbert College and Case School of Applied Science in Cleveland, Ohio. The first MAA president, E. R. Hedrick, gave his presidential retiring address on, “The Significance of Mathematics.” This meeting followed the AMS meeting whose last session was joint with MAA and included an address by L. P. Eisenhart on “Darboux’s contribution to geometry.” Seventy-two of the 90 persons attending various sessions were members of the MAA.

The third annual meeting of the MAA took place in December 1917 in Chicago, in conjunction with the Chicago Section of the AMS. At a joint meeting of the organizations, W. B. Ford gave his retiring address as Chairman of the Chicago Section on “A Conspectus of the Modern Theory of Divergent Series,” and L. D. Ames gave an MAA address on “A Definition of the Real Number System by means of Infinite Decimals.” This was the first meeting for which volunteer papers were invited; it was understood that this procedure would be an integral part of future meetings. In view of the war conditions, the attendance of 119 at MAA sessions, including 93 MAA members, was gratifying.

At the September 1918 summer meeting at Dartmouth, a session was devoted to the question of publishing a mathematical dictionary. The project was eventually tabled. Such a proposed book appeared in 1942 edited by Robert Clarke James and Glenn James. A. G. Webster spoke on “Mathematics of Warfare” at a joint AMS-MAA session, presided by G. D. Birkhoff. A contributed papers session was offered in which members were encouraged to speak on any topic of their choice, in particular, expository papers of a fairly elementary nature and papers of historical interest. Up to then a committee had selected the topics for the papers session. Abstracts of the talks, details of the governing Council meeting, and a list of those who attended the meeting appeared in the *Monthly*. Of the 71 attendees, 42 were MAA members.

Effective for the next annual meeting, the numbering of the annual meetings was changed so that the organizational meeting in 1915 was no longer included in the count. Thus the annual meetings in December 1917 and December 1918 were both labeled as the third annual meeting. Apparently, the only hint of this change was in the true footnote, “The Association was founded in December, 1915.” This appeared in the report of the December 1918 meeting, in the March 1919 *Monthly*.

The third annual meeting was held at the University of Chicago on December 27, 1918, in conjunction with the annual meeting of the AMS. A telegram was read at the meeting from Major E. V. Huntington, president of the MAA, who was unable to attend the meeting because he was still engaged at the statistics branch of the general staff of the war department. In the telegram, he noted that "there is a great future in mathematics in this country, especially *accurate arithmetic*." Members of the Association were invited to hear the AMS presidential address, "Mathematics in War Perspective," by L. E. Dickson. The program included a conference on war-time experience, which focused on what mathematics colleges would offer after the war, and a joint AMS-MAA session, all eight of the papers involving applications of mathematics to the war effort (ballistics, maps, navigation, etc.). There were 86 who attended the sessions, including 73 MAA members. About 80 persons attended the AMS sessions.

Because of World War I and increased railroad fares, the next meeting with over 100 attendees was the winter meeting in January 1920 (with 143 in attendance, including 108 MAA members). Normally at this time, the MAA program consisted of the reading of from 4 to 8 papers and there was a day interposed between the AMS and MAA meetings where joint sessions and a dinner were often scheduled.

The Ann Arbor summer meeting of 1919 was joint with meetings of the AMS and American Astronomical Society (AAS). A joint AMS-MAA-AAS session included E. V. Huntington's retiring presidential address, "Mathematics and Statistics." E. W. Brown spoke on "The Work of the National Research Council (NRC) with reference to Mathematics and Astronomy." Brown noted that NRC did not intend to control research, but sought to encourage research. There was a symposium on the relationship between the mathematics offered in high schools and in colleges. Meals were furnished under the auspices of the Michigan Union at reasonable rates and lodgings at \$1.50 per night. Special provisions were made for ladies and married couples. The meeting closed with an exhibition of mathematical and astronomical rarities from the library of the University of Michigan. 91 of the 190 persons in attendance belonged to the MAA.

The next annual meeting was held at Columbia University on January 1-2, 1920. The general topic for all sessions was "Mathematics in Relation to the Allied Sciences." Speakers were invited from physiology, crystallography, physical chemistry, biometry and vital statistics, and physics. J. W. Young presented a statement to the MAA Council and AMS Council, from the National Committee on Mathematical Requirements, regarding reconsideration of the definitions of college entrance requirements as formulated by an AMS committee in 1903. There were 143 attendees, including 108 members of the MAA. At the AMS sessions on December 30-31, 1919, there were 96 members present and 38 papers read.

At the September 1920 summer meeting in Chicago, it was announced that the Association would soon be incorporated by the State of Illinois. As a consequence the governing Council would be replaced by a Board of Trustees. The most

important action of the Council was concerned with the financial situation of the Association, because the cost of producing the *Monthly* had risen 50%. It was agreed to increase individual annual dues to four dollars. The highpoint was an inspiring retiring address by President H. E. Slaught. Of the 132 present at the meeting, 114 were members of the MAA. There were attendees from 13 “distant states,” Alberta, Ontario and China.

At the fifth annual winter meeting in December 1920, in Chicago, the following resolution was adopted: Resolved, that the Mathematical Association of America favors the national use of the meter-liter-gram system.” Congress was urged to take the steps necessary to implement this change. One-hundred-sixty-seven people attended a joint dinner of the AMS, MAA, Section A of AAAS, and the American Astronomical Society. Eight members attended each session of the new MAA Board of Trustees. A probable deficit of \$700 was of concern, but it was noted that 60 members had made special contributions of up to \$17, totaling \$150. In all, 204 people attended the sessions, of whom 150 were MAA members.

Helen A. Merrill of Wellesley was the first women to read a paper at a joint Society-Association session. She spoke on synthetic projective methods of geometry of cubic and quartic curves at the 1921 summer meeting at Wellesley. At that meeting the Board of Trustees received and accepted a gift from Mary Hegeler Carus, trustee of the Edward C. Hegeler Trust Fund. The funds made possible the series of Carus Monographs whose main purpose was to popularize mathematics by making accessible at nominal cost to students and teachers the best thoughts and keenest research in the field.

The first meeting held in Canada was the December 1921 meeting in Toronto, by invitation of the University of Toronto and the Royal Canadian Institute. The meeting was held jointly with AMS and AAAS. The meetings of the AAAS were also held during the week. Over 1800 attended the various sessions of the AAAS and affiliated societies. At an MAA session, Oswald Veblen spoke on “Foundations of Geometry.” It was noted that a thoroughly skeptical attitude should be preserved toward the facts of geometry, in that they are only a partial description of nature. When one speaks of distant parts of space or of space as it was in the distant past, one encounters “difficulties with regard to the evidence.” There were 110 attendees at the sessions, including 88 MAA members.

At the 1922 summer meeting in Rochester, a short chamber concert was offered in Kilbourn Hall at the Eastman School of Music. There was a tour of the Research Laboratory of the Eastman Kodak Company, and a session took place at their research laboratory. There was also an “automobile” tour and inspection of Rochester. There was an opportunity to visit the plant of the Bausch & Lomb Optical Company. Elizabeth B. Cowley of Vassar became the first woman to speak at an Association session. Her talk dealt with early 19<sup>th</sup> century English mathematical texts.

The December 1922 meeting, held at Harvard University in conjunction with meetings of AAAS and the AMS, included a Symposium on Mathematical Statistics. There were three talks at a joint session with AMS and section A of the AAAS, by G. A. Bliss, Florian Cajori and Oswald Veblen. W.H. Echols spoke on skew squares. The Echols Scholar program at the University of Virginia was named in his honor. One evening, various groups attended a dinner for visiting women, a trip to the Harvard Astronomical Observatory, a private dinner for Harvard men, a Sigma Xi dinner, and a smoker in the Harvard Union. There were 216 attendees, including 148 members of MAA. [The account of the meeting in the March-April 1923 issue of the *Monthly* provides an interesting snapshot of the American mathematical community at that time.]

The summer meeting in September 1923, held at Vassar College, was just after an earthquake that destroyed Yokohama and half of Tokyo; the MAA voted an expression of sympathy to the Physico-Mathematical Society of Japan. At an Association session G.D. Birkhoff spoke on "The mathematical basis of art." Suzan Rose Benedict of Smith College spoke on the honor student in mathematics. At a joint session with the AMS, L. J. Mordell gave an introductory account of the arithmetical theory of algebraic numbers. The Board voted to hold no summer meeting in 1924 because of the mathematical meetings to be held in Toronto. One hundred and fifteen people attended, including 70 MAA members.

The December 1923 meeting was held at the University of Cincinnati, in conjunction with meetings of AAAS and the western meeting of the AMS. A joint session of the MAA, AMS and Section A of AAAS included addresses by G. A. Miller, A. B. Coble, and L. E. Dickson. The meeting included a Sigma Xi lecture sponsored by Sigma Xi and the MAA. The Board voted to set aside \$1000 to form the nucleus of a permanent endowment fund.

There was no summer meeting in 1924, because of the mathematical meetings scheduled in Toronto.

The December 31, 1924-January 1, 1925 meeting at George Washington University included a Pi Mu Epsilon business session and dinner. President Calvin Coolidge addressed the visiting scientists at the White House on Wednesday, December 31, 1924. He expressed, "the great dependence which the government places on science, paying tribute to the scientists as the wonder workers of all the ages, and recognizing that they are animated by a profound purpose to better the estate of men." Of the 268 present at the meeting, 167 were members of the MAA.

The summer meeting in September 1925 was held at Cornell University in Ithaca, New York. The joint dinner was attended by 174 people, including the honored guest Edward H. Carus, son of Mary Hegler Carus whose gift made possible the Carus Mathematical Monographs. The Board formally adopted the Chauvenet Prize for mathematical exposition, which had been proposed by (MAA) President Coolidge.

Up until about 1925, many presentations were followed by discussions, which were summarized in detail in the meeting reports in the Monthlies. For example, at the summer meeting in September 1920, A. C. Lunn of the University of Chicago spoke on "The debt of mathematics to the experimental sciences." There followed discussions "with respect to its bearing upon research in pure mathematics" and "with respect to its bearing on mathematical curricula."

At the tenth annual meeting in December 1925, the MAA paid the AMS the compliment of making the third annual Josiah Willard Gibbs lecture a general session of the MAA. This meeting was held at the Junior College in Kansas City, MO. More than 600 people heard James Pierpont speak on, "The history of man's effort to solve the problem of space, and the effect of relativity on our views." The previous evening, R. A. Millikan lectured on, "The stripped atom." At a joint session of the Association, the AMS, and Section A of the AAAS, J.C. Fields of Toronto spoke on "The algebraic numbers and division." At a joint meeting of Section A with Section L (Historical and Philological Sciences) of AAAS, W. H. Roever read an interesting paper on William Chauvenet and his mathematical contributions to astronomy. Another highlight of the meetings was J.L. Coolidge's retiring MAA presidential address on "Robert Adrain and the beginnings of American mathematics." The Board approved presenting the first Chauvenet Prize to G. A. Bliss. The prize was \$100.

The tenth MAA summer meeting was held in September 1926 at the Ohio State University. Representing the Association at a joint session, E.T. Bell spoke on successive generalizations to the theory of numbers. At the business meeting, by a vote of 40 to 18, the following by-laws amendment proposed by the Trustees was adopted: "The President shall be elected by the Association's members biennially for a term of two years and shall be ineligible for re-election. The Vice-Presidents shall be elected by the Association's members annually." Total attendance was 151.

A record 264 were present at the December 1926 meeting in Philadelphia, the first meeting with over 250 attendees; 184 were members of the MAA. Under the auspices of Sigma Xi, the Secretary of Commerce spoke on, "The Nation and Science." That was Herbert Hoover. The Trustees named R. C. Archibald and Florian Cajori to work with the History of Science Society to arrange an exhibit and program commemorating the bicentenary death of Newton. The Board discussed the important question of having official delegates from the national MAA attend meetings of the sections, but the matter was dropped because of financial considerations. The next meeting with over 250 attendees was the December 1928 meeting at Columbia University in New York, where 340 attended, including 221 MAA members.

The 1927 summer meeting was held at the University of Wisconsin in conjunction with a meeting of the AMS. Of the 201 attendees, only 118 were MAA members. The AMS program included lectures by Anna Pell Wheeler on "The theory of quadratic

forms in infinitely many variables and applications,” and by E. T. Bell on “Algebraic arithmetic.” The banquet was unique, being addressed by three presidents, the presidents of the AMS, MAA and the University of Wisconsin.

At the December 1927 meeting in Nashville, MAA President Dunham Jackson spoke on the human significance of mathematics. Arnold Dresden gave a paper on some philosophic aspects of mathematics. The Trustees voted to apply for sustaining membership in the AMS “as an expression of loyalty to the Society and in view of the unique relationship between the Society and the Association.” Miss Jewell Hughes from the University of Arkansas spoke on opportunities for women in the teaching of mathematics in the United States, affirming and substantiating the claim that women have an opportunity equal to that of men in college and university positions in mathematics unless it be in the higher university positions. J.L. Coolidge reminded attendees that one purpose of these meeting is to meet kindred spirits and to discuss their common ideals. At the close of the meeting the Association had a surplus of \$3,700.

At the thirteenth summer meeting of the Association, held at Amherst College in September 1928, many attendees were lodged and took their meals in the Lord Jeffery Inn. A group photo was taken. On an afternoon when no sessions were scheduled, there was an excursion to the bridge of flowers in Shelbourne Falls with lunch at the Sweetheart Tea Room. A. B. Coble gave an AMS lecture on “The determination of the tri-tangent planes of the space sextic of genus four.”

In the AAAS session at the December 1928 annual meeting at Columbia University, Harlow Shapley spoke on “The galaxies of galaxies.” G.H. Hardy was too ill to give the Gibbs lecture. The substance of his address “An introduction to the theory of numbers” was given by H.W. Brinkmann. At a session of the MAA, Einar Hille spoke on the development of mathematics in Sweden from about 1700. H. E. Slaughter spoke, in the spirit of a broadcasting station “MAA, The Voice of Service,” of the necessity of not merely of research and its publication, but also that of exposition. He pointed out that the Association has thus aided in the subvention of the *Annals*, in the publication of the Carus Monographs and in the stimulation afforded by the Chauvenet Prize. A complimentary concert for attendees was given at Carnegie Hall one evening by the Philharmonic Symphony Society.

#### WINTER MEETINGS 1929-present

Attendance at the winter meeting, December 31, 1929 – January 1, 1930, was down to 140, with 104 being MAA members. This was the first meeting after the 1929 financial crash, and it was in Des Moines, Iowa, which is not centrally located except geographically. The meeting was held in Hotel Fort Des Moines. It was the first joint meeting where sessions and lodgings were located in a hotel and not on a college campus. However, the scientific exhibits containing offerings of numerous publishers of college and university texts and makers of scientific apparatuses were

located in the three-year-old Za-Ga-Zig Shrine Temple Auditorium, the largest hall in the Midwest. Tiny lights embedded in its domed ceiling represented the summer night's sky. In spite of the low attendance, over 400 people attended the Josiah Willard Gibbs lecture on, "The application of mathematics to the social sciences," by Irving Fisher.

The December 1931 annual meeting was held in New Orleans, in affiliation with meetings of the American Association for the Advancement of Science (AAAS) and AMS. Irving Fisher gave an evening address on "First principles of booms and depressions." At the annual dinner, H. E. Slaughter described his dream of the January 1966 celebration of the 50th anniversary of the MAA. He prophesized the future growth and prosperity of the publications and other activities of the AMS and MAA, and he referred to the fine spirit in the relationship between the organizations. A joint AMS-MAA session sponsored addresses by E. R. Hedrick and R. D. Carmichael.

One afternoon, about 150 mathematicians at the 1932 Atlantic City meeting visited Princeton University and heard an address by John von Neumann on "Application of the operational calculus to mechanics." At the joint dinner, R. C. Archibald read from a letter from D. H. Lehmer giving an account of his photo-electric congruence machine, a machine that determined the factorability of very large integers in an amazingly brief time. The first MAA session was devoted to the role of mathematics in life insurance. At a joint session of the MAA, Section K of AAAS, and the Econometric Society, G. C. Evans spoke on "The theory of money." The Board approved G. H. Hardy as the recipient of the Chauvenet Prize.

Perhaps because of the special nature of the 1933 summer meeting at the University of Chicago, the December 1933 meeting in Cambridge, Massachusetts was well attended, with 380 in attendance of whom 201 were MAA members. The MAA's second session had three speakers: A. N. Whitehead, Alonzo Church and Kurt Gödel. At the business meeting, the bylaws were suspended and by unanimous vote Professor H. E. Slaughter was elected Honorary President for Life, which included honorary life membership. Attendees were invited to an afternoon performance by the Boston Symphony Orchestra conducted by Serge Koussevitzky. There was a reception hosted by Mrs. J. L. Coolidge at Lowell House at Harvard and an exhibition at MIT of important machines including a continuous electrical intergraph from which Vannevar Bush and his students had developed several analog devices.

The December 28, 1934-January 1, 1935 meeting was held in Pittsburgh, PA. An unexpected guest at the annual dinner was Dr. Albert Einstein of the Institute for Advanced Study. Dr. Einstein was in Pittsburgh to give the Josiah Willard Gibbs Lecture. The NCTM met by special arrangement at this meeting, and the MAA and NCTM sponsored a joint session. This was the first joint meeting with an NCTM presence. A social was held on New Year's Eve at the Cathedral of Learning at the University of Pittsburgh.



The December 1935 meeting was held in St. Louis, jointly with AAAS and NCTM, as well as AMS. Total attendance was 332, with 229 MAA members. At the business meeting a resolution endorsing a world calendar, i.e., the “12-month equal-quarters plan,” was adopted with one dissent. The Board reaffirmed this endorsement in September 1937 meeting. Nathan Altshiller-Court spoke on modern pure solid geometry showing the audience how to extend the properties of the triangle and circle to higher dimensions.

The 21st annual meeting was held, jointly with AMS, at Chapel Hill and Durham, North Carolina, on December 31, 1936 and January 1, 1937. At the annual dinner, J. D. Tamarkin mentioned that his native land, Russia, is now second only the United States in mathematical research. Dunham Jackson spoke about subjects in which accurate results are replaced by those in which there is a “weighing of argument on this side and that.” This is another argument for the importance of good teaching. The Board made T. S. Fiske and G. A. Miller honorary life members of the MAA in recognition of their loyalty.

The December 1937 meeting was held in Indianapolis, in conjunction with the AAAS, AMS, NCTM, the Association for Symbolic Logic (ASL), and the Institute of Mathematical Statistics; 412 were in attendance and 258 were MAA members. The Board accepted the “Putnam Competition Plan” at this meeting.

The December 1938 meeting was held at Richmond and Williamsburg, Virginia, jointly with AAAS, AMS and NCTM. 189 MAA members were among the 389 attendees at this meeting. At a joint session of the MAA, Sections A and E of AAAS, and AMS, W. D. Cairns spoke on, “Seismology from a mathematical viewpoint.” R. C. Archibald spoke on, “Mathematicians, and poetry and drama,” at a joint session of the MAA, Sections A and L of AAAS, and the AMS. There was also a joint MAA-NCTM session. G. D. Birkhoff, AAAS President, gave his retiring presidential address on, “Intuition, reason and faith in science.” R. L. Moore gave his AMS retiring presidential address “On certain abstract spaces.” The Society awarded John von Neumann the Bôcher Prize for his paper, “Almost periodic functions and groups.” The Board read a letter from G. C. Evans indicating that there is a danger that algebra will be taken out of the ninth grade, not only on the West Coast but throughout the country.

The December 1939 meeting was held in Columbus, Ohio, in conjunction with meetings of the AMS, AAAS and NCTM. The speakers at the second MAA session were Saunders Mac Lane, G. T. Whyburn and E. F. Beckenbach. J. R. Kline lectured on “The Jordan curve theorem” at the joint session of the MAA, Section A of AAAS, and AMS. A joint session of the MAA, Sections A and E of the AAAS, and the AMS focused on mathematical geophysics. The joint session of the MAA and NCTM focused on the social challenge of teacher education from the viewpoints of liberal arts colleges, state universities, teachers colleges, and the MAA. The AMS Gibbs Lecture was titled, “The engineer grappling with non-linear problems,” and was given by Theodore von Kármán. The Board voted to appoint a standing Committee

on Section Meetings “to bring about closer coordination and mutual relations between the Sections and the parent organization.” Later this committee became the Committee on Sections. There was a joint MAA-NCTM panel on the social challenge of teacher education.

Excluding the Harvard Tercentenary meeting in 1936, the January 1941 meeting in Baton Rouge, Louisiana, was the first meeting with over 500 attendees. This was the 25th annual meeting of the MAA. An MAA session focused on geometry, at which talks were given by A. W. Tucker, G. A. Hedlund and Deane Montgomery. There were about 520 in attendance, 213 of them MAA members. The meeting was held jointly with AMS and NCTM. After the meeting, a number of attendees took advantage of the nearness of New Orleans to attend the Sugar Bowl. Seven Regional Governors, elected by members of their regions, were announced.

About 520 people attended the December 31, 1941-January 1, 1942 meeting at Lehigh University in Bethlehem, PA, which was held in conjunction with the AMS, NCTM, and ASL. The streets and homes of Bethlehem were elaborately lighted in Christmas fashion. An unusual feature of the meetings was a session on multi-sensory aids, including an exhibit of various moving pictures of a mathematical nature, drawings and trivision (sic) films. Since the Chauvenet Fund no longer supported the \$100 given every three years, the prize amount was reduced to \$50, still given every three years.

At the 1941 summer meeting in Chicago, the Board voted that the December 1942 meeting would be in New York City, but this meeting was later canceled at the request of the Office of Defense Transport.

At the September 1943 meeting in New Brunswick, the Board discussed whether to hold meetings during the war emergency. It was agreed to hold the summer and annual meetings for 1944 jointly with the AMS, “at times and places to be determined later.” The winter meeting was held in Chicago in November 1943, two and a half months later. There were 207 attendees, including 136 MAA members. The meeting was held Friday, Saturday, and Sunday morning. At the Board meeting, “letters were read from several members protesting against the holding of sessions on Sunday.” No action was taken, but it was indicated that the scheduling had been necessitated by war conditions and that there was no intention of continuing the practice after the emergency.

The 1944 and 1945 winter meetings were again held, jointly with AMS, in Chicago in November. The headquarters hotel was the Windermere. The sessions were held in the auditorium of the Museum of Science in Jackson Park. Lunches and dinner were available in the cafeteria of the museum.

The 1944 winter meeting was held on November 25-26. At the joint dinner, R. E. Langer gave a short talk on post-war problems; he also called attention to the major

loss to American mathematics with the recent death of G. D. Birkhoff. The two MAA sessions were a symposium on undergraduate mathematical curricula. W. D. Cairns, who had been MAA Secretary from 1915 to 1942 and President 1943-1944, was given an honorary life membership.

The Board voted to accept an invitation to meet in June 1945 at McGill University in Montreal, following a meeting of the Canadian Mathematical Congress. However, this AMS-MAA meeting was canceled by order of the Office of Defense Transport.

At the 1945 meeting, held November 24-25, following similar action by the Council of the AMS, the Board approved the final report of the Joint AMS-MAA War Policy Committee and discharged the committee. The Association program consisted of two sessions with five speakers: M. R. Hestenes, H. S. M. Coxeter, J. R. Kline, W. G. Cochran and Churchill Eisenhart.

The 30th annual meeting was held in December 1946 at Swarthmore College in Pennsylvania, in conjunction with meetings of the AMS. Of the 498 attendees, 288 were MAA members. Among the six presenters in the two MAA sessions were C. B. Allendoerfer, Emil Artin, Antoni Zygmund and Mark Kac.

Around 1947, the MAA created a Committee on Places of Meetings, which became a joint committee with the AMS in 1954. At about this time, there developed a pattern of MAA winter meetings being little attachments to the bigger AMS meetings. For example, the MAA's meeting in the winter of 1947-1948 was a short one-day affair at the University of Georgia, taking place on January 1, 1948. The AMS meeting was held the preceding days, December 29-31. This one-day MAA meeting included a retiring presidential address by C. C. MacDuffee, three other presentations, and a symposium on college entrance mathematics requirements.

The next winter's meeting was held at Ohio State University on December 31, 1948. The meeting was held in conjunction with meetings of AMS, NCTM and ASL. In addition, Pi Mu Epsilon and Kappa Mu Epsilon held breakfast and lunch meetings. The two MAA sessions included six presentations. There was a meeting of MAA section secretaries, and 18 of the 25 sections were represented. The AMS sessions were on December 28-30, 1948. The AMS Gibbs lecture was delivered by Hermann Weyl. Other AMS invited speakers were Mark Kac, A. S. Besicovitch, Lamberto Cesari, and Einar Hille (retiring presidential address). The national meetings remained joint but separate. One highlight of the meeting occurred at the joint banquet when J.S. Frame led the group in singing the traditional *Auld Lang Syne*.

An MAA winter meeting took place on December 30, 1949, at Columbia University in New York City, in conjunction with meetings of the AMS and AAAS. There were 780 registrants, with 412 MAA members. As with all summaries of MAA summer and winter meetings, all registered MAA members are listed in the report given in the *American Mathematical Monthly*. Other organizations meeting in New York City that week included the NCTM, the American Economic Association, American

Statistical Association, the Econometric Society, and the Institute of Mathematical Statistics. For this meeting, there was a Committee on Arrangements for the Meeting which included the Secretary-Treasurer, H. M. Gehman.

The 1950 winter meeting was held on December 30, 1950, at the University of Florida, Gainesville. It was held in conjunction with longer meetings of the AMS and NCTM. There were two MAA sessions with six presentations. Both the AMS and NCTM had sessions with invited speakers. The AMS Gibbs lecture was given by G. E. Uhlenbeck who spoke on, "Some basic problems of statistical mechanics." A total of 371 people registered, of whom 237 were MAA members.

The 1951 winter meeting was held at Brown University on December 29, 1951. The MAA program included a regular session of three papers and a five-paper symposium on the teaching of calculus. The AMS Gibbs lecture was delivered by Kurt Gödel and titled, "Some basic theorems on the foundations of mathematics and their philosophical implications." AMS invited addresses were given by Shizuo Kakutani and G. P. Hochschild. At the joint dinner, AMS President John von Neumann extended greetings from the Society. A total of 560 people attended this joint AMS-MAA meeting, and 272 of them were MAA members.

The 1952 winter meeting was held at Washington University in St. Louis, Missouri, on December 30, in conjunction with meetings of the AMS, the AAAS, and ASL. About 500 persons registered, including 281 MAA members. The Board established a standing committee on the Earle Raymond Hedrick Lectures; the first two of these lectures (Tibor Rado in 1952 and Paul R. Halmos in 1953) were organized by the Committee on Expository Lectures.

The next annual meeting, in conjunction with the AMS and Pi Mu Epsilon, took place on December 31, 1953, at Johns Hopkins University. Over half of the 640 registrants were MAA members: 360. The MAA papers presented mostly "resulted from various projects intended to improve undergraduate mathematical education or to provide a more satisfactory transition from school to college." There was a round table discussion on mathematics for social scientists. No panels appeared on the program from 1940 to 1952. After the 1953 meeting, panel discussions became a regular feature at the winter meetings.

The 1954 winter meeting took place on December 30, 1954, at the University of Pittsburgh. A morning session, devoted to the foundations of geometry, featured talks by H. J. Ryser, Marshall Hall, and Reinhold Baer. The afternoon sessions featured a business meeting and addresses by M.F. Smiley on "Classroom Notes" and "A demonstration of mathematics on television" by P. S. Jones. This meeting was in conjunction with AMS, ASL, and Society for Industrial and Applied Mathematics (SIAM). Well over half of the 725 registrants were MAA members: 412. The Board approved the establishment of a joint committee with the AMS to study a possible change in the scheduling of annual meetings.

The MAA's one-day annual meeting on December 30, 1955 was held, jointly with AMS, at Rice Institute in Houston, Texas. Only 382 persons were registered, but over 66% (254) were MAA members. It was noted at the Business Meeting that the MAA was organized exactly 40 years earlier, with a charter membership of 1045. Of these, 208 were still living and had maintained continuous membership.

The next winter meeting was held on December 29, 1956, at the University of Rochester, Rochester, New York. It was held in conjunction with the annual meetings of the AMS and ASL. MAA addresses were given by A. E. Ross, A. W. Tucker, J. B. Rosser and Walter Prenowitz. E. J. McShane gave a retiring presidential address. Of the 623 registrants, 410 were MAA members.

After decades of winter meetings in December or early January, the next winter meeting was held January 30-31, 1958, at the University of Cincinnati. The Association ran three sessions. W. L. Duren gave a retiring presidential address "Mathematics courses for mathematics teachers." Two panels were offered, one on the organization and operation of institutes and one on the appropriate courses for institutes, with panelists: E. J. McShane, George Pólya, R. E. Johnson, and R. A. Rosenbaum. Of the 750 registered persons, 519 were MAA members.

The annual meeting in January 1959 was held at the University of Pennsylvania. The MAA sessions were scheduled for two mornings and an afternoon. Three panels were offered: one on professional opportunities in mathematics, one on the training of secondary school mathematics teachers, and one on high school math courses. The last panel was co-sponsored by the School Mathematics Study Group and moderated by E. G. Begle. There were 621 MAA members among the 996 registrants.

The second annual meeting held in a hotel was in Chicago in January 1960. The meeting, held in conjunction with meetings of the AMS, NCTM, and SIAM, spanned three days with sessions held three mornings and one afternoon. Panel discussions dealt with advanced placement, nature and role of geometry in the classroom, and calculus in high school. The hotel was not happy with the 1312 frugal mathematicians; they had to close two of their three bars. Attendees included 816 MAA members. The program included a joint meeting of the MAA and NCTM. The Board voted to set the prices of all Carus Monographs at \$2 per copy for members and \$4 for nonmembers. There was no annual banquet because "the opportunities for entertainment and recreation throughout Chicago" are so extensive. A registration fee of \$1 was imposed. Prior to this meeting there was no registration fee.

The January 1961 meeting was held in Washington, D.C. at the famous Willard Hotel, the week after President John Kennedy was inaugurated. The first MAA session was devoted to probability and statistics. The second session consisted of a presentation by George G. Lorentz on "Metric entropy and approximation" and an analysis of

“Undergraduate preparation for graduate work” by Andrew H. Gleason. The third session, on applied mathematics, included presentations by Lipman Bers, J. B. Keller and H. P. Greenspan. The fourth session, on topology, included talks by Eldon Dyer, Raoul Bott and John W. Milnor. There were 1527 registered persons, including 921 members of the MAA. It was announced that the MAA had 10,197 members, which was up 1084 from the previous year. The Board approved several procedures establishing *Mathematics Magazine* as a publication of MAA. The Board also voted that the degree of Doctor of Arts in mathematics be established at most Ph.D.-granting universities.

The 45th annual meeting was held in Cincinnati, Ohio, January 24-26, 1962. Of the 1492 registrants, 1033 were MAA members. It was noted that this was the first meeting at which MAA attendance exceeded 1000. The first MAA session was devoted to logic. The second session, titled “Real analysis – A first course?,” was followed by a “Critique, rebuttal, and discussion from the floor.” The third session concerned two approaches to geometry, and the fourth session was on, “Geometry and the college and secondary curricula.” At the Business Meeting, the Association’s first Award for Distinguished Service to Mathematics was made to Dr. Mina S. Rees.

The 1963 winter meeting was held at the University of California in Berkeley in conjunction with meetings of the AMS and ASL. The MAA scheduled four sessions, including ones on the training of non-teaching mathematicians, on algebra from groups to categories, mathematics in the non-physical sciences, and combinatorial analysis. The first of many evening film programs at national meetings was offered. Among the 1666 registrants, 947 were members of the MAA. At this meeting, the Board met all day. The AMS Gibbs lecture on “Information theory” was given by Claude E. Shannon.

The 1964 winter meeting was held at the University of Miami in Coral Gables. A session on the contents of the first course in real analysis was offered, followed by a panel consisting of E. J. McShane, Edwin Hewitt and Walter Rudin. There were four sessions in all, plus a session of films. There were 1493 registered attendees, with 982 MAA members. The Board instructed the Secretary to prepare a bylaws amendment raising the annual dues to \$6, up from \$5.

The January 1965 meeting was held in Denver, Colorado, in conjunction with the AMS, NCTM and ASL. There was a joint session with NCTM and a panel on the role of topology in the undergraduate curriculum. L. S. Bosanquet spoke on “Notes on Hardy’s published papers on series.” Through the Board, the MAA was the first professional organization in the sciences to endorse the “1940 Statement of Principles” on Academic Freedom and Tenure, as published by the AAUP in 1964.

The January 1966 meeting was held jointly with AMS in Chicago, but not in the same hotel as in 1960. There were 3042 registrants, including 1835 members of the MAA. As often in the past, sessions were scheduled for three mornings and one afternoon. One of the four MAA sessions was a Symposium on Recent Advances in Group

Theory. There were also sessions of films.

The 1967 winter meeting was held in part at the Rice Hotel in Houston and in part at the Cullen Auditorium at the University of Houston. This was the MAA's 50th annual meeting. There were sessions devoted to algebraic topology and analysis. There were 3101 registered persons, of whom 1720 were member of the MAA. There were joint sessions with NCTM on geometry in school mathematics, high school geometry, geometry of the future, and mathematics around the world. The bylaws were again amended to increase MAA dues, this time from \$6 to \$8.

The 1968 winter meeting was held in San Francisco, with 3936 registrants and 1959 MAA members. There was a session on applications of mathematics and a panel on international study of achievement in mathematics. This was the largest joint meeting up to this time. As in previous years, there were four MAA sessions plus sessions of films. The business meeting included presentations of the seventh Award for Distinguished Service to Mathematics and the award of the 1968 Chauvenet Prize.

The largest attendance at a joint meeting for many years was at the 1969 winter meeting in New Orleans. There were 4811 registered persons, including 2328 MAA members. The attendance record held until the 2000 meeting in Washington, D.C. The meeting was held in conjunction with meetings of the AMS, NCTM, ASL, and Mu Alpha Theta. The National Association of Mathematicians (NAM) was founded in 1969. The first two MAA sessions were joint with NCTM. The Association held sessions on the theory of distributions and on multivariate calculus. At the Business Meeting, a bylaw amendment was approved asserting that, without a dollar amount specified, the Board shall establish annual dues. Two motions to avoid future meetings in Chicago, because of events at the preceding Democratic convention, failed though the AMS had already passed such a resolution.

In the December 1969 issue of the *American Mathematical Monthly*, it was announced that the January 1970 meetings had been moved from Miami to San Antonio. Difficulties with remaining in Miami included requiring half the participants to be accommodated far from Miami and at very high prices. The culmination of the arrangements was a letter from the Miami Convention Bureau stating, "The Everglades Hotel, which is serving as the headquarters for the forthcoming convention of the AMS, has announced that a portion of the accommodations has been committed by its ownership for purposes which will radically affect its commitment to you."

The January 1970 meeting was well attended even though it had been moved to San Antonio at the last minute: 3994 persons registered, and 2117 were MAA members. R. D. Anderson and W. L. Duren spoke on successive days on the topic "Are there too many Ph.D.'s." At the Business Meeting, the Secretary announced that he repeatedly heard expressions such as, "This is the best meeting we have ever attended. When can we meet here again?" A one-day shopping trip by bus to Nuevo Laredo, Mexico,

was arranged. There was also a special showing of the play, "A Taste of Honey."

The 1971 winter meeting was held in Atlantic City, New Jersey. There were 3513 registered persons, including 2003 members of the MAA. The Association for Women in Mathematics (AWM) was founded at the meeting. There were two joint sessions with the NCTM, one on the preparation of mathematics teachers and one on "The computer and the calculus." There were four MAA sessions and sessions on films. At the Business Meeting, a resolution was presented concerning the war in Vietnam. The President requested that the Secretary read that part of the bylaws describing the purposes of the MAA. He then ruled the motion out of order and, upon appeal, the ruling of the chair was sustained by a voice vote. This meeting of the Association was disjoint from the AMS meeting, as were the next few meetings.

The 1972 meeting was held in Las Vegas at the Sahara Hotel. The Rocky Mountain Mathematics Consortium (RMMC) held a board meeting. There were MAA sessions on the Open University in Great Britain, modernizing the mathematics curriculum in two- and four-year colleges, and "Players, probabilities, and profits," and a general session. There were also film sessions. The Board approved a resolution stating: "The Board of Governors urges greater participation by women in the affairs of the Association and urges the Association's officers, at both the national and section levels, to facilitate and encourage such participation." It was announced that the Board approved a proposal for initiating a USA Mathematical Olympiad to be conducted at the high school level. AMS President Saunders Mac Lane and others were upset at the atmosphere. For example, one had to walk by gambling tables to get to the meeting rooms. So at the AMS Business Meeting, it was voted that, "it was the sense of the meeting that the Society not meet again in Las Vegas in this century." The attendance was 3495 including 1706 Association members.

The January 1973 meeting was held in Dallas, Texas, in conjunction with meetings of the AMS, ASL, and NCTM. There was an MAA panel discussion on "Why, what, and how to publish." One of the joint sessions with NCTM dealt with new directions in mathematics education. Association sessions dealt with using the history of mathematics as a pedagogical tool and trends in the applications of mathematics. There was a great deal of complaining that coffee in the headquarters hotel was 50 cents. After polling attendees at the Dartmouth summer meeting, and also consulting the MAA sections, the Board voted to institute graduated MAA membership dues for the first time; the dues had been \$12.50 for several years.

The January 1974 meeting was held in San Francisco, jointly with the AMS. Among the 3410 registrants were 1903 members of the MAA. Panel discussions on "The problem of learning to teach" and "On problem solving" were sponsored jointly with AMS. There was a luncheon honoring George Pólya and Gabor Szegő. A session was offered on the applications of mathematics to biology. Another session included a report from D. E. Knuth on "Computer science and its relation to mathematics." Invited addresses were given by Olga Taussky-Todd and Donald Knuth. Victor Klee gave the retiring presidential address. The AMS program included a Gibbs lecture,



two sets of Colloquium Lectures, and 8 invited addresses. The Board authorized entering a team from the USA in the 1974 International Mathematical Olympiad.

The January 1975 meeting was held in Washington, D.C., jointly with AMS, NCTM, ASL, and the AWM. The fifth MAA session included talks by A. M. Gleason, Mark Kac and Branko Grünbaum. The MAA sessions on Saturday and Sunday were joint with NCTM, including a panel discussion on teaching mathematics to beginning undergraduates. An evening session was held jointly with AMS. There was an AMS-MAA joint session on training graduate students to teach. There was an MAA film session. The Board voted to make the Two-Year College Mathematics Journal an official journal of the MAA beginning January 1, 1976. The Board voted to negotiate for the purchase of the New Mathematical Library (NML) from Random House. The Board also voted to endorse the AMS-MAA-SIAM Joint Projects Committee for Mathematics, later named the Joint Policy Board for Mathematics (JPBM).

The January 1976 meeting was held in San Antonio, Texas, in conjunction with meetings of the AMS and AWM. There were 2840 registrants, including 1640 members of the MAA. One evening, there was an informal session on two-year colleges. The main focus at the meeting was the United States Bicentennial. The first MAA session included presentations about mathematics in America from colonial times until 1941; the speakers were D. J. Struik, Judith V. Grabiner and Garrett Birkhoff. P. R. Halmos spoke at the second session, on American mathematics from 1940 to the present. There were also sessions on two-year college mathematics, mathematics in our culture, and mathematics and government. The AMS program included a set of Colloquium Lectures, 8 hour addresses and a two-day short course. The National Association of Mathematicians (NAM) scheduled a business meeting and program on January 25. The AMS and MAA jointly sponsored a music recital for piano and violincello, performed by Leonard Gillman and Louis Rowen.

The winter meeting in 1977 was held at the Chase-Park Hotel in St. Louis, Missouri. Single hotel rooms were available starting at \$24, doubles at \$30. This meeting was held jointly with several organizations, including NAM. There were 2993 registered persons, including 1741 MAA members. Again most of the MAA sessions were joint with NCTM. There was an evening joint session with the AMS on the "China Report" about a delegation's visit to the People's Republic of China in May, 1976. Three joint MAA-NCTM panels dealt with the decline in preparation of students for collegiate mathematics, how to cope with avoidance and anxiety, and the history of women in mathematics. There was also a joint AMS-MAA concert and a cocktail party featuring Dixieland Jazz for dancing in the hotel's Starlight and Zodiac Rooms.

The January 1978 meeting was held in Atlanta, Georgia, jointly with AMS and NCTM. Approximately 3100 persons registered for this meeting. Paul Erdős spoke on combinatorial problems in elementary geometry and Ivan Niven spoke on the fact that combinatorics really counts. Henry Pollak gave the retiring presidential address. There was a Chauvenet symposium, which consisted of two lectures by

winners of the Chauvenet Prize. There was a panel on numerical analysis in the classroom, on using the history of mathematics to teach mathematics, on remediation, and on credit and placement by examination. There was also a panel discussion on the "Interim report of the National Research Council Committee on Applied Mathematics Training." Special sessions included 13 films. Finally, there was a poster session with six displays. The Board ratified an agreement to establish the Archives of American Mathematics at the University of Texas. The Board also approved purchase of the property at 1527 and 1529 Eighteenth Street, N.W., in Washington, D.C. Donald E. Knuth gave the AMS Gibbs lecture on "Mathematical typography."

The January 1979 meeting was held in Biloxi, Mississippi, in conjunction with meetings of the AMS, AWM, NCTM, and the Mathematics Action Group. 2069 of the attendees registered as mathematicians. There were several panel discussions on mathematics education and a joint session with NCTM. The fourth MAA session sponsored talks by Persi W. Diaconis, Andrew M. Gleason and R. Creighton Buck. Diaconis spoke on "Mathematical problems in ESP research." The Committee on Two-Year Colleges held an informal meeting. A poster session was held in the exhibition hall. The Board approved establishment of a Joint MAA-SIAM Committee on Applications of Mathematics in the College Curriculum. The Board also approved creation of a standing Committee on Short Courses.

The January 1980 meeting was held in San Antonio, Texas, in conjunction with a meeting of AMS, AWM, NCTM, and the Mathematicians Action Group. Henry L. Alder gave a retiring presidential address. The meeting included a joint MAA-SIAM session and a session on mathematics for two-year college faculty. The first AWM Noether Lecture was given by F. Jessie MacWilliams of Bell Labs. There was an MAA minicourse on "Precalculus and calculus with hand-held calculators." There were two "MAA Swap Sessions" that focused on section-sponsored short courses and student participation at section meetings. The AMS and MAA sponsored a concert with Louis Rowen on violincello and Lenny Gillman on the piano playing sonatas by Bach, Franck, Beethoven, and Rachmaninoff. There were 2758 registrants including 1581 MAA members.

The January 1981 meeting was held in San Francisco, California, in conjunction with meetings of AMS, ASL, AWM, Conference Board of the Mathematical Sciences, NCTM, and the Mathematicians Action Group. There were 1635 members of the MAA among the 3165 registrants at this meeting. Two of the MAA sessions were sponsored jointly with NCTM, including a panel discussion on gifted students. The Association sponsored its second minicourse, "Topics in data analysis" organized by John Kettenring and Paul Tukey. The film sessions included 14 films.

In 1982, 2345 attended the 65th annual meeting in Cincinnati including 1298 Association members. The meeting was held in conjunction with meetings of the AMS and AWM. There were five invited addresses, and Dorothy L. Bernstein gave her retiring presidential address on "Mathematical expectations." There were two

panel discussions and an open meeting on secondary school lectureship programs. Dorothy Bernstein gave a retiring presidential address. Two minicourses were offered: "Mathematical models in political science" and "The use of computers to teach mathematics." There was a session in honor of Martin Gardner, with Doris Schattschneider presiding.

The January 1983 meeting was held in Denver, Colorado. On two days the Association held joint sessions with the NCTM. The first two contributed paper sessions were offered. One was on the use of computers in undergraduate mathematics instruction, the other on discrete mathematics in undergraduate mathematics instruction. The Committee on Corporate mathematics sponsored a session on mathematics publishing, copyright, and software. There was a workshop on the use of Pascal. There were 1227 Association members among the 2323 registrants.

The January 1984 meeting was held in Louisville, Kentucky. Richard D. Anderson gave the retiring president's address on "Reflections on the mystique of R. L. Moore." There were 7 invited addresses, 4 panel discussions, and 8 minicourses. At the business meeting, MAA President Ivan Niven read a citation honoring women in mathematics, which was received by Julia B. Robinson and Linda P. Rothschild, presidents of AMS and AWM, respectively. The seven MAA Invited Addresses were given by Richard A. Askey, Andrew M. Gleason, Melvin Maron, Henry O. Pollak, Herbert S. Wilf, Frances Yao, and one jointly by Ross Finney and Donald Berman of COMAP. The total number of attendees was 2533.

The January 1985 meeting in Anaheim, California, was held in conjunction with meetings of the AMS, ASL, AWM and NAM. There were 8 invited addresses, 10 minicourses, and 7 panel discussions. There were 5 sessions of invited contributed papers. A special program was devoted to computer science that included a panel and workshops. The Two-Year College Committee hosted a get-together cocktail party for all those interested in Two-Year colleges. The eight MAA Invited Addresses were given by Persi Diaconis, Helaman R. P. Ferguson, John M. Guckenheimer, Gian-Carlo Rota, Murray M. Schacher, Franklin D. Tall, Guido L. Weiss, and Joseph Weizenbaum. The ACM/MAA Joint Committee on Retraining for Computer Science sponsored two special sessions, two workshops and one panel discussion. There were 3116 attendees at the meeting.

The 1986 January meeting in New Orleans was promoted as a joint mathematics meeting; there were 3726 attendees at the meeting. Ivan Niven gave a retiring presidential address. Ben Fusaro organized the first session on mathematical competition in modeling to be offered at a winter meeting. The first Joint AMS-MAA Invited Addresses on the history and development of mathematics at winter meetings were given by Victor W. Guillemin, Paul R. Halmos, and Thomas Hawkins. The original goal of these addresses was to invite truly great well-known mathematicians and encourage them to appeal to a wide audience; history and/or personal recollections were encouraged. In the first few years, Joint Invited

Addresses by Lipman Bers, Joe Dauben, Paul Halmos, John Kemeny, Saunders Mac Lane, and Uta Merzbach, and David Mumford were especially well attended. The MAA Invited Addresses were given by R. H. Bing, Ronald L. Graham, Peter J. Hilton, Joseph B. Keller, Victor L. Klee, Henry O. Pollak, and Gail S. Young. There were 3 sessions of contributed papers and 12 minicourses. [Five of those speakers were past or future MAA presidents!]

In January 1987, the joint meeting was held in San Antonio, Texas. There was an AMS-MAA symposium on the role of mathematics in precollege education. Warren Page organized session on software. An AMS-MAA workshop on popularizing mathematics through Square One Television was organized by Joel Schneider. There were 3385 attendees at the meeting. AMS-MAA Joint Invited Addresses were given by Edward N. Lorenz, Uta C. Merzbach, and Hugh L. Montgomery. Richard K. Guy, Peter D. Lax, and John W. Milnor gave MAA Invited Addresses. Guy spoke on "The strong law of small numbers." There were 5 sessions of contributed papers and numerous panel discussions. Ben Fusaro organized a presentation, "The Mathematical Competition in Modeling (MCM)." There was a Joint AMS-MAA symposium on "The role of mathematicians in pre-college education."

The 1988 joint meeting was held in Atlanta, Georgia. There was a joint session on 100 years of American mathematics, an ethno-mathematics panel, and a special program on forces of change in mathematics education. The Joint AMS-MAA Invited Addresses were given by Lipman Bers, Joseph Dauben, John G. Kemeny, and David Mumford. Lynn Steen gave a retiring presidential address. There were 6 sessions of contributed papers. There were 7 MAA Invited Addresses. They were given by: Lawrence Couvillon, Ronald G. Douglas, Donald L. Kreider, Jeffrey C. Lagarias, Charles C. Lindner, Vera S. Pless, and Jane Cronin Scanlon. A Tex users group workshop was the first of many workshops to be offered by the Association at winter meetings. MAA President Len Gillman sang "Happy Birthday" to the AMS at the joint dinner where HP-28s were given to attendees who opted to pre-purchase one when registering for the meeting. Most memorable was the fact that Atlanta was snowed in for most of the meeting. The number of mathematicians who registered for the meeting totaled 3236.

The 1989 joint meeting was held in Phoenix, Arizona. Joint AMS-MAA Invited Addresses were given by Ralph P. Boas, Ronald L. Graham, Cathleen S. Morawetz, and Stephen Smale. Arnold Ross gave a Special MAA Report on helping teachers develop creativity in students. There was a panel sponsored by the Joint Committee on Employment and Educational Policy, a panel on computers in geometry, a session on mathematical modeling, a presidential concert with William Browder on the flute and Lenny Gillman on the piano, and a workshop on teaching assistants and part-time instructors. A hike to South Mountain Park in the Sonora Desert was sold out. The MAA Hedrick Lecture was given by Don Bernard Zagier. The six MAA Invited Addresses were given by H. Thomas Banks, Peter B. Gilkey, Alfred W. Hales, Marian Boykan Pour-El, George R. Sell, and Ruth Williams. The total attendance was 3685.

In 1990 the Association met in Louisville, Kentucky. Even though there had been some overlap on Association and Society sessions since 1986, the Louisville meeting was the prototype of what has come to be a fully integrated joint mathematics meeting. There were Joint AMS-MAA Invited Addresses, given by Jon Barwise, Charles W. Curtis, Barry Simon, and Nolan R. Wallach. There were 5 MAA Invited Addresses, given by James D. Aczél, Michael F. Barnsley, Thomas Kailath, Judith D. Sally, and Peter Winkler. There was an AMS-MAA-SIAM forum on preparation for college teachers, a computer algebra systems session, a session on computers in the classroom, several 5-day workshops, and the second part of a special report by Arnold Ross on developing teachers' ability to encourage creativity in students. *Mathematical Reviews* celebrated its 50<sup>th</sup> birthday at the meeting. There was a banquet to recognize the 20<sup>th</sup> anniversary of NAM and a dinner was held to honor A. B. Willcox, who had retired after serving as MAA Executive Director of 21 years. Leonard Gillman gave the retiring presidential address on "Teaching programs that work." The attendance at the meeting was 3680.

The 1991 meeting was held in San Francisco, California. Joint AMS-MAA Invited Addresses were given by Shiing S. Chern, Rebecca A. Herb, and Frank Morgan. Four MAA Invited Addresses were given by Harold M. Edwards, Jill P. Mesirov, Carlos J. Moreno, and Floyd Williams. Lester H. Lange gave the first MAA Student Chapter Lecture. His topic was "Desirable scientific habits of mind learned from George Pólya." Christel Rotthaus gave a special AMS-AWM-MAA address in honor of the 20<sup>th</sup> anniversary of the founding of the Association for Women in Mathematics. A contributed papers session was offered on humanistic mathematics. There was an open discussion sponsored by the Committee on the Mathematical Education of Teachers (COMET) on the document, "A Call for Change." A workshop sponsored by the Committee on Student Chapters was followed by a student reception. The committee also organized an excursion to the Exploratorium for students. The Committee on the Participation of Women sponsored skits and a discussion on "Changing the climate." The total attendance was 4650.

The January 1992 meeting was held in Baltimore. The Joint AMS-MAA Invited Addresses were given by Joan S. Birman, I. M. Singer, and J. Ernest Wilkins, Jr. The MAA Invited Addresses were given by David H. Carlson, Ingrid Daubechies, James W. Demmel, Jeffrey Shallit, and Harold Stevenson (from a Psychology Department). A retiring presidential address given by Lida K. Barrett. There were three joint AMS-MAA sessions, 17 MAA minicourses, and 7 MAA sessions of contributed papers. A panel was offered on statistics for the Twenty-First Century. There was a Strengthening Underrepresented Minority Mathematics Achievement (SUMMA) workshop. A session was offered on starting and maintaining a department colloquium. There were poetry readings and a calculus/art presentation. There was a special presentation by John von Neumann's brother, Nicholas A. Vonneuman. The first student poster sessions were offered. The total attendance was 4061.

In 1993, the joint meetings were held in San Antonio, Texas. There were three sessions in honor of the *Monthly's* centennial. The first Joint Prize Session occurred

at this meeting. The Joint AMS-MAA Invited Addresses were given by George E. Andrews, Richard Brualdi, Robert Osserman, and Mary F. Wheeler. The MAA Invited Addresses were given by Peter B. Borwein, Sylvia T. Bozeman, and Robert D. Richtmyer. Until this meeting, AMS and MAA had scheduled separate prize sessions. The Committee on Student Chapters sponsored the first student chapter paper session and the first student chapter hospitality and information center which was coordinated by Richard and Araceli Neal. There was a career fair for students and a student day program for local high school students. There were sessions on calculus reform, life outside academia, quantitative literacy for college students, and mathematical research for undergraduates. The MAA sponsored the first of many actuarial faculty forum informal session on actuarial education organized by James Daniel. The meeting included the first of several Mathchats, a graduate student reception where mathematicians representing a wide range of disciplines met with graduate students organized by Jim Tattersall. There was also an MAA Special Inaugural Teaching Award Session, the first session for presentations by recipients of the Deborah and Franklin Haimo Award for Distinguished College or University Teaching Award. Several sessions were held to celebrate the centennial of the publication of the *American Mathematical Monthly*. Speakers at the *Monthly* sessions were Robert A. Rosenbaum, Paul R. Halmos, Murray S. Klamkin, Andrew M. Gleason, Harley Flanders, and George E. Andrews. The session were complemented with a *Monthly* Centennial Celebration Banquet. The meeting attendance total was 4093.

At the San Antonio meeting, the Board of Governors of the MAA met in joint session with the Council of the American Mathematical Society to discuss the issues posed by the scheduling of the January 1995 meeting in Denver in view of recent political developments in Colorado. After discussion the groups returned to their respective meeting rooms. The Board of Governors of the MAA voted to cancel plans to hold the 1995 Joint Mathematics Meeting in Denver. Another motion to the city of Denver passed unanimously.

“The Board of Governors of the Mathematical Association of America wish to commend the City of Denver for having developed and implemented what we understand are progressive civil rights ordinances; especially, those prohibiting discrimination based on sexual orientation. We further commend what we understand is the position of the city’s leadership and the position of the majority of the citizens of Denver to challenge and to work for the repeal of Amendment 2 that passed statewide on the November 1992 ballot. For these efforts in the area of human and civil rights, we wish to applaud the City of Denver.

However, just as the laws and powers of the State of Colorado supersede those of the City of Denver, our commitment and concern for the human and civil rights of all of our members must supersede our appreciation for Denver’s past policies and practices in the area of human and civil rights and the city’s current philosophical position on Amendment 2.

Thus the position that we have taken in the Resolution conveyed to the Governor and the people of the State of Colorado is the resolution that will guide our actions regarding holding the January 1995 Joint Mathematics Meetings in the City of Denver or any other place in Colorado.

It is our hope that the efforts of the City of Denver and others will help to eradicate language similar to that of Amendment 2 from any and all of Colorado's state laws. Such an accomplishment would permit us to consider favorably having a Joint Meeting in the City of Denver in the near future."

Each organization was obliged to pay \$10,000 cancellation fee.

The January 1994 meetings were held in Cincinnati, Ohio. The Joint AMS-MAA Invited Addresses were given by Georgia M. Benkart, Subrahmanya Chandrasekhar, László Lovász, and Kenneth A. Ribet. A retiring presidential address was given by Deborah Tepper Haimo. MAA Invited Addresses were given by Deane Argandbright, William W. Dunham, Stephen Monk, and Brad G. Osgood. The Association offered 16 Minicourses and 12 Contributed Paper sessions. There were also sessions on making your department inviting for women, reform in the engineering curriculum, interactive mathematics texts, and life after retirement. The Committee on Student Chapters organized the first student poster session on undergraduate research at a winter meeting.

The 1995 annual meeting was held in San Francisco. The Joint AMS-MAA Invited Addresses were given by Doris Schattschneider, who spoke on "Mathematical amateurs: M. C. Escher (artist) and Marjorie Rice (homemaker)" and David A. Cox, who spoke on "The algebra of solving polynomial equations." The MAA Invited Addresses were given by Lenore Blum, Joan Ferrini-Mundy, David R. Hill and David E. Zitarelli, Mario U. Martinelli, Karen H. Parshall, and Karen Ulenbeck. There were sessions on mathematical competitions, the preparation of K-6 teachers, diversity in mathematics courses, preparation for graduate student teaching assistants, testing issues with technology, how to help actuary students prepare for and find jobs, and undergraduate curriculum reform. The meeting and several subsequent annual meetings were billed as joint with AMS, AWM, NAM and ASL. The Young Mathematician Network (YMN), founded in 1993, sponsored a town meeting on the concerns of young mathematicians. The RMMC held a Board of Directors meeting. Twenty-nine contributed paper sessions and twenty-two minicourses were offered. The total attendance was 5038. For the first time the total attendance passed the 5000 mark.

The 1996 annual meeting was held in Orlando, Florida. A major storm in the northeast kept many folks away, and many arrived late. The Joint AMS-MAA Invited Addresses were given by Andrew J. Granville, William C. Harris, and Roger A. Wiegand. The Gibbs Lecturer was Stephen Weinberg. The MAA Invited Addresses were given by László Babai, Robert L. Bryant, Etta Z. Falconer, Donald L. Kreider, and Robert Moses. There were sessions on distance learning, the visiting lecture

program, women in mathematics, making teaching more public, the use of history in the teaching of mathematics, encouraging department change, research in mathematics education, a quantitative literacy foundations course, and coordinating mathematics and science education. There was a NSF Division of Education poster session and a PME and MAA student chapter advisors' breakfast. A Project NExT session was offered on "Activities and lessons learned." Eighteen minicourses and fourteen contributed paper sessions were offered. The total attendance was 3729.

The 80<sup>th</sup> annual meeting of the Association was held in San Diego, California in 1997. The Joint AMS-MAA Invited Addresses were given by Solomon Feferman and Michael H. Freedman. Persi Diaconis gave the Gibbs Lecture. The MAA Invited Addresses were given by Guershon Harel, Morris Hersch, Carlos Imaz, Dan Kalman, James Kaput, Harold W. Kuhn, and Christine Shoemaker. Nineteen Minicourses, fourteen Contributed Paper sessions, and thirty other sessions were offered. Among the other sessions were ones on using real-world data to motivated teaching and learning, innovative programs using technology, careers for mathematics majors in financial risk management, actuarial education, a chair's survival guide, advanced placement statistics, teaching precollege mathematics, and college algebra reform. The total attendance was 4379.

The joint annual meeting in 1998 was held in Baltimore, Maryland. The Joint AMS-MAA Invited Addresses were given by Jonathan Alperin, Haim Brezis, Gail F. Burrill, NSA Director Kenneth A. Minihan, and U.S. Secretary of Education Richard W. Riley. Joint AMS-MAA sessions dealt with history of mathematics, research in undergraduate mathematics education, the use of history in teaching mathematics, new directions in information technology, and the future of NCTM standards. There was a Joint AMS-MAA-MER session on mathematics and education reform. The Gibbs Lecture was given by Edward Witten. MAA Invited Addresses were given by Thomas F. Banchoff, Roger E. Howe, James Propp, Alan H. Schoenfeld, Marjorie Senechal, and Herbert Wilf. The Association offered 16 minicourses and 12 contributed paper sessions. Other sessions offered dealt with advice for preparing and securing an academic position, the calculus wars – Leibniz versus Newton, professional development issues concerning young and future faculty, successful articulation for innovative mathematics programs, keeping adjunct faculty aware of changes in teaching, environmental mathematics. The short course dealt with mathematical imaging and image processing. It was the first short course offered by the Association at a winter meeting. Among the 4581 attendees were 2426 members of the Association.

The annual joint meeting was held in San Antonio, Texas in 1999. The Joint AMS-MAA Invited Addresses were given by Jennifer Tour Chayes, Joan Feigenbaum, and Rita Colwell. The MAA Invited Addresses were given by Jean Pedersen, John H. Conway, John Fauvel, Jeremy Kilpatrick, Edward G. Dunne, Rodica Simion, and Jonathan M. Borwein. There were Joint AMS-MAA sessions offered on geometry in dynamics, research in mathematics by undergraduates, and history of mathematics, and a Joint AMS-MAA-MER session on mathematics and educational reform. The



subject of the MAA short course was financial mathematics. Sessions included a performance of the "Mathematics of Lewis Carroll" with Robin Wilson as Charles Dodgson, the Legacy of R.L. Moore Project, involving students in industrial consulting experiences, exemplary women in mathematical careers, using the web as a tool to teach calculus, and what mathematics teachers need to know. There was an evening of poetry and musical presentation "Eine Kleine (Mathematische) Nachtmusik" presented by Eric Neuwirth of the University of Vienna. There were 4568 attendees, including 2287 Association members.

The January 2000 annual mathematics meeting was held in Washington, D.C. In spite of the snowy weather, the meeting commenced with a gala opening banquet. The meeting was joint with AMS and SIAM as well as AWM, NAM and ASL. It was the first meeting joint with SIAM in 20 years. The three Joint AMS-MAA-SIAM Invited Addresses were given by Brian Greene, Karl Rubin, and Judith S. Sunley. A Joint AMS-MAA-SIAM-Mathematical Sciences Education Board (MSEB) Invited Address was given by George C. Papanicolaou. The Gibbs Lecturer was Sir Roger Penrose. There were six Joint AMS-MAA-SIAM special sessions on history of mathematics, innovative development programs for teaching assistants and part-time instructors, linear algebra and optimization, mathematics and education reform, mathematics in business, government and industry, and a session in memory of Gian-Carlo Rota. The MAA Invited Addresses were given by Ronald L. Graham, Wade Ellis, Jr., Karen H. Parshall, Carl Pomerance, and Edward Burger. Thomas F. Banchoff gave the Student Lecture. The Association offered 15 minicourses, 14 contributed paper sessions, and a short course. The program included 46 MAA sessions including one on tenure and post-tenure review policies, the Archimedes' Palimpsest, outreach programs for women and girls in mathematics, finding your second job, great theorems in mathematics, the number years' (a mathematical games show), a workshop for teaching assistant trainers, a poster session on environmental mathematics, and an informal session on actuarial mathematics. Howard Penn organized the first winter graduate student paper session. One afternoon there was a reception for attendees at the MAA Headquarters. The attendance was 4965 including 2287 members of the Association.

New Orleans was the site of the January 2001 annual meeting. The meeting was joint with the usual organizations (AMS, AWM, NAM, ASL), but not with SIAM. The Joint AMS-MAA Invited Addresses were given by Barry Mazur and Jeffery R. Weeks. There were Joint AMS-MAA special sessions one on The Job market organized by Thomas Richel and one on the NSF digital library program organized by Lee Zia and James Lightbourne. The Gibbs Lecture was given by Ronald L. Graham. The MAA Invited Addresses were given by Robert F. Almgren, Hyman Bass and Deborah Ball, Ralph Keeney, Peter D. Lax, Ivars Peterson, Eleanor Robson, and Peter Winkler. Nineteen Contributed Paper session, fourteen Minicourses, a short course, and 50 other sessions were offered. The first General Contributed Papers sessions were offered. They were organized by Howard Penn, Elizabeth M. Mayfield, Jay A. Malstrom, and William P. Wardlaw. The SIGMAA on Research on Undergraduate Mathematics Education and the SIGMAA on Statistics Education scheduled

receptions and business meetings. These were the first SIGMAA events to appear on a winter program. There were sessions on writing biographies of mathematicians, keeping active in research, how to attract more students into advanced mathematics classes, mathematics in industry, writing workshops, and what mathematics graduates should know in 2010. The Association for Research on Undergraduate Mathematics Education held a reception and business meeting. There was a reception for first time attendees. The meeting marked the first time general contributed paper sessions were offered by the Association at a winter meeting. The attendance was 5134 including 2709 Association members.

The January 2002 meeting was held in San Diego, in conjunction with meetings of AMS, AWM, NAM, ASL. The Joint AMS-MAA Invited Addresses were given by Dennis DeTurck, Hendrick W. Lenstra, and James R. Schatz. There were two Joint AMS-MAA sessions, one on history of mathematics and the other on mathematics and education reform. The MAA Invited Addresses were given by Manuel P. Berriozabel, Persi W. Diaconis, Andrew J. Granville, Susan Landau, M. Elizabeth Pate-Cornell, and David J. Pengelley. Thomas F. Banchoff gave a retiring presidential address. There were nineteen contributed paper sessions offered including a general contributed paper session organized by Shawnee L. McMurran, Laure Wallace, and Sarah L. Mabrouk. For the first time at a winter meeting, the Association offered invited paper sessions, akin to AMS special sessions. Other activities included sessions on the new CUPM Curriculum Guide, AP calculus, how to make the most of teaching evaluations, the hiring process, a session for chairs, mathematics preparation of doctorates in mathematics education, grant writing, mathematical experiences for students outside the classroom, and how to successfully publish a book. There were 4665 attendees at the meeting including 2252 Association members.

The January 2003 meeting was held in Baltimore, in conjunction with AMS, AWM, NAM, ASL and SIAM. The Joint AMS-MAA Invited Addresses were given by Noam D. Elkies and Edward R. Scheinerman. The five MAA Invited Addresses were given by Ivor Grattan-Guinness, Paul J. Sally, Joseph H. Silverman, Richard A. Tapia, and Robin Wilson. The MAA program also included 16 minicourses, 26 contributed paper sessions, several invited paper sessions, a short course on mathematics in the ancient world, and 47 other sessions. There were four contributed paper sessions sponsored by SIGMAAs. Sessions included small group projects in college algebra, writing and publishing expository articles on mathematics, first college-level mathematics courses, how to assess a mathematics program, improving graduate education, interdisciplinary business mathematics, laptops in the classroom, and the state of statistics education. The MAA short course on "Mathematics in the ancient world" was organized by V. Frederick Rickey. There were 5087 attendees including 2413 Association members.

The January 2004 meeting was held in Phoenix, Arizona. The Joint AMS-MAA Invited Addresses were given by Bonnie Berger and Stephen Wolfram. The MAA retiring presidential address was given by Ann Watkins. Other MAA Invited Addresses were given by Manjul Bhargava, William W. Dunham, Erica L. Flappan,

Mark M. Meerschaert, and Neil J.A. Sloane. There were five contributed paper sessions sponsored by SIGMAAs. The meeting was held in conjunction with meetings of the ASL, AWM, NAM, PME, SIAM, YMN, RMMC, and the London Mathematical Society. The Mathematical Art Exhibit was a new feature at this meeting and has been a regular event since then. Stephen Wolfram presented a live computer experiment. There was a session on quantitative literacy across the curriculum, mentoring new faculty, finding your next job, assessment of student learning, and oral presentations. The attendance was 4726 including 2212 Association members.

Atlanta, Georgia, was the site of the January 2005 annual meeting. The Joint AMS-MAA Invited Addresses were given by Andrea L. Bertozzi and Berndt Sturmfels. The Gibbs Lecture was given by Ingrid Daubechies. The MAA Invited Addresses were given by Georgia M. Benkart, Erik D. Demaine, Fernando Q. Gouvêa, Steven G. Krantz, Ravi D. Vakil, and Robin J. Wilson. Twenty-four contributed paper session, sixteen minicourses, and 50 other sessions, including several SIGMAA sessions were offered. The MAA short course on random graphs was organized by Alan M. Frieze. Sessions included one on the two-body problem, how changes in high school mathematics could influence collegiate mathematics, recruiting students by mathematics departments, strategies to improve students' proof-writing skills, inquiry-based learning, planning a sabbatical, and faculty development for adjuncts and new faculty. The total attendance was 4874 including 2361 Association members.

The January 2006 annual meeting was held in San Antonio. The Joint AMS-MAA Invited Addresses were given by Svetlana Y. Jitomirskaya and László Lovász. The MAA Invited Addresses were given by Marc Chamberland, Keith J. Devlin, Naomi Fisher, Ben Green, Robert E. Megginson, and Francis E. Su. There were three invited paper sessions, 16 minicourses, 29 contributed paper sessions, and a short course. There were 9 SIGMAA sessions and 3 Project NExT sessions. Other sessions offered were on requiring statistics of every mathematics major, teaching a course on women and/or minorities in mathematics, the great  $\pi/e$  debate, transitioning into graduate school, what business looks for in new hires, and topics of ethics in mathematics. The total attendance was 5131 including 2319 Association members. The graduate student reception and first-timers reception were merged into one event.

The 2007 meeting was held in New Orleans. The Joint AMS-MAA Invited Addresses were given by Bryna R. Kra and Persi W. Diaconis. The Gibbs Lecture was given by Peter D. Lax. The MAA Invited Addresses were given by Jerry L. Bona, Jeffrey Brock, Bradley Efron, Della Fenster, Penny Haxell, and Jan van Mannen. The locals were grateful that the meetings were not moved because of the devastation caused by the hurricane Katrina. In recognition of the 300th anniversary of Euler's birth, the MAA short course was on "Leonhard Euler: looking back after 300 years." Sessions offered included one on keeping your research alive, Euler's continuing influence, student placement, engaging students in research, clubs, student chapters, and

internships, reshaping undergraduate mathematics for biology-related disciplines, and electronic student assessment. The total attendance was 5236 including 2245 Association members.

The January 2008 annual meeting was held in San Diego. The Joint AMS-MAA Invited Addresses were given by Fan Chung and Terrance Tao. The MAA Invited Addresses were given by Paul H. Edelman, Karen H. Parshall, and Carl Pomerance. Carl C. Cowen gave a retiring presidential address. There were 16 minicourses, 26 sessions of contributed papers, and 22 SIGMAA-related events. Among the other 31 sessions was a session on mathematics in Hollywood, a session on what every chair should know about funding, a demonstration and performance of the mathematics of dance, and a showing of the movie *Flatland*. The short course on “Combinatorics: past, present, and future” was organized by Robin Wilson. The MAA held ancillary conferences on “Introductory concepts of statistical inference” and “Building an undergraduate statistics program.” The total attendance was 5653 including 2419 Association members.

Washington, D.C. was the host of the 92<sup>nd</sup> annual meeting of the MAA in January 2009. The Joint AMS-MAA Invited Addresses were given by Douglas N. Arnold and Maryam Mirzakhani. The MAA Invited Addresses were given by Maria Chudnovsky, Ivars Peterson, Daniel C. Rockmore, Peter Sarnak, and Peter M. Winkler. Twenty-six contributed paper sessions, fourteen minicourses were offered. In addition, there were invited paper sessions, panel discussions, workshops, poster sessions, sessions and activities for undergraduate and graduate students, poetry readings, a dramatic performance, and a short course. There were thirty SIGMAA-related events. A short course on data mining was organized by Richard D. de Veaux. The MAA ancillary program was on “Teaching introductory data analysis through modeling.” Among the MAA sessions for students was a career fair, a lecture for students, a poster session, a reception for undergraduates, a panel on choosing, getting in, and staying in graduate school, a panel on career opportunities for undergraduates, a graduate school fair, and the Student Hospitality Center. There were 5965 attendees including 2288 MAA members.

The January 2010 meeting was held in San Francisco in conjunction with meetings of the ASL, AWM, NAM, PME, RMMC, YMN, and SIAM. The Joint AMS-MAA Invited Addresses were given by Joseph Harris and Brian White. The MAA Invited Addresses were given by Manjul Bhargava, Lenore Blum, Dusa McDuff, Glen van Brummelen, and Sue Whitesides. The First AMS-MAA-SIAM Gerald and Judith Porter Public Lecture was given by Steven H. Strogatz who spoke on “The calculus of friendship.” There were six invited paper sessions, 13 minicourses, 27 sessions of contributed papers, and 22 panels, poster sessions and other sessions. A short course on “Exploring the great books of mathematics” was organized by Amy Shell Gellasch and Glen Van Brummelen. There were two ancillary workshops, one on “Teaching introductory statistics” and one titled, “Become a catalyst for change in statistics education.” Among the many sessions offered by the Association was one on finding the balance between mathematics and family demands and one on

promotion and tenure. The Mobiusbandaid players presented several mathematically-related pieces. The total attendance was 5798 including 1991 MAA members.

New Orleans was the venue for the joint meetings in 2011. The Joint AMS-MAA Invited Addresses were given by Kannan Soundarajan and Chuu-Lian Terng. The second Gerald and Judith Porter Public Lecture was given by Robert J. Lang. The MAA Invited Addresses were given by Robert M. Bell, Edward R. Scheinerman, Katherine Socha, and Melanie Wood. David M. Broussoud gave a retiring presidential address. There were six invited paper sessions, 13 minicourses, and 26 contributed paper session. In addition, there were thirty-eight SIGMAA-related sessions, and thirty-one MAA panels, poster sessions and other sessions. There was a session on mentoring underrepresented students, improving biomathematics courses, regional undergraduate mathematics conferences, recruitment of future graduate students, and inquiry-proof instructional techniques. Nancy Ann Neudauer organized a short course on matroids. Besides the section officers meeting, the business meeting and numerous committee meetings, there were meetings for both department liaisons and minority chairs. There was a performance titled the “Derivative vs. integral” presented Colin Adams and Thomas Garrity. The total attendance was 5968 including 2036 members of the Association.

The January 2012 annual meeting was held in Boston, Massachusetts. The Joint AMS-MAA Invited Addresses were given by Alan Knutson and Hee Oh. The Gibbs Lecture was given by Bradley Efron. The Porter Lecturer was Erik Demaine. The MAA Invited Addresses were given by Jennifer Quinn, Seth M. Sullivan, Carolyn S. Gordon, Rekha R. Thomas, and Mary Lou Zeeman. There was a MAA-AMS Invited Paper Session on recent developments in the philosophy of mathematics, 9 MAA invited paper sessions, 14 minicourses, 29 contributed paper sessions, and 31 SIGMAA-related events. There were sessions on transitioning from high school to college, on administrative strategies for dealing with budget cuts, on getting your textbook published, mathematics for non-STEM students, engaging secondary teachers in doing mathematics, and a math wrangle organized by the American Mathematics Competitions Office. There was a short course on the topic of “Discrete and computational geometry” organized by Satyan L. Devadoss and Joseph O’Rourke. There were 7156 participants at the meeting, including 2286 MAA members. It was the first time attendance exceeded 7000.

The January 2013 meeting was held in San Diego. The AMS-MAA Invited Addresses were given by Robin Pemantle and Emily Shuckburgh. The Porter Lecturer was Kenneth Golden. The MAA Invited Addresses were given by Timothy Chartier, Tony DeRose, Chris Rasmussen, Suzanne Weekes. Paul Zorn gave a retiring presidential address. There were presentations by teaching award recipients, invited paper sessions, contributed paper sessions, minicourses, poster session, panels, workshops, special interest group sessions and events, and ancillary workshops. There were over 40 MAA panel discussions, poster sessions, workshops and other sessions. Among those there were sessions on placement testing and the common

core curriculum, what every student should know about the joint mathematics meetings, benefits of research with undergraduates, mathematics examinations for prospective teachers, parental and family leave for graduate students, and randomization and bootstrap methods in an introductory statistics course. There was a poetry reading session, a performance by the Mobiusbandaid players, a film on the life of Shiing-Shen Chern, an exhibit of the Paul Halmos photograph collection, and a short course on conceptual climate models. The total attendance was 6672, including 2096 MAA members.

The 97<sup>th</sup> annual meeting of the Association was held in Baltimore in January 2014. The Joint AMS-MAA Invited Addresses were given by Benson Farb and Carl Pomerance. The Porter Lecturer was Eitan Grinspun. The MAA Invited Addresses were given by Sarah-Marie Belcastro, William Dunham, Helaman and Claire Ferguson, Jill Pipher, and Michael Starbird. In addition there were seven invited paper sessions, fifteen minicourses, twenty-eight contributed paper sessions, forty other sessions, including panels, posters, workshops, poetry readings, and a math wrangle. The short course on learning the methods of historical research organized by Amy Shell-Gellasch was well attended, but the Board voted at the meeting not to offer short courses at future meetings. The total attendance was 6448, including 1663 MAA members.

The January 2015 annual meeting was held in San Antonio. The Joint AMS-MAA Invited Addresses were given by Jordan Ellenberg and Richard Tapia. The Porter Lecturer was Donald G. Saari. The MAA Invited Addresses were given by Catherine O'Neil, Ken Ono, Christine Rousseau, and Diana L. Thomas. Robert Devaney gave a retiring presidential address. Seven invited paper sessions, sixteen minicourses, thirty-three contributed paper sessions with themes, and a host of general contributed paper session were offered. In addition thirty-three panels, posters, or workshops were on the program. Twelve SIGMAAs sponsored various events. There were several session for students including a speed interviewing marathon, a graduate school fair, a poster session, and a lecture. In addition, three ancillary workshops were on the program.

#### SUMMER MEETINGS (1929 to present)

The first far western meeting was held in Boulder, Colorado, in August 1929. Considering the times and location, it was well attended with 239 in attendance, including 121 MAA members. Indeed, "The attendance was beyond the expectations, almost beyond the hopes of those in charge," since "the membership in the Rocky Mountain region is quite scattered." Most attendees lodged in fraternity houses. However, several members found it quite feasible to pitch their tents in the Boulder Municipal Camp. There was an excursion by university and private automobile to Estes Park Village and then up to the Fall River Pass at an altitude of 11,797 feet. Many attendees had planned their vacations to include a stay in the mountains for two or three weeks preceding or following the meeting.

At the summer meeting at Brown University in September 1930, Enrico Bompiani of the University of Rome spoke on Italian contributions to mathematics. G.D. Birkhoff spoke on the mathematical theory of harmony and melody. His talk was assisted by Marston Morse at the piano, who developed a theory of harmony in which a comparison of chords and sequences of chords was analyzed using underlying aesthetic factors and a formula of his. The AMS colloquium lectures were given by Solomon Lefschetz on "Topology." Addresses were also given by T. H. Hildebrandt and J. D. Tamarkin. There was an excursion to Newport that included the Cliff Walk and the Casino where a shore dinner was provided.

The fifteenth summer meeting was held at the University of Minnesota (Minneapolis) on September 4, 7 and 8, 1931. The September 4 meeting was at the end of the Summer Session of the Society for the Promotion of Engineering Education, providing an important link between the meetings of the two mathematical organizations. One of the joint talks with this organization was about "Some great engineer-mathematicians," starting with Archimedes. The AMS colloquium lectures were given by Marston Morse on "The calculus of variations." Invited addresses were given by Edmund Landau and C. C. MacDuffee. 259 were present at the meeting, including 148 MAA members.

The summer meeting in 1932 at UCLA was held in conjunction with the AMS summer meeting. There was an excursion to Mount Wilson Observatory and lunch at the Athenaeum at the California Institute of Technology. The staff at the observatory graciously exhibited both the 100 inch and the 60 inch telescope. Of the 210 in attendance, 92 were members of the MAA.

The 1933 summer meeting was held for a week in June at the University of Chicago and Northwestern University, by invitation of, "A Century of Progress Exposition." Nearly 500 people attended, including 193 members of the MAA. The Science Congress, jointly sponsored by AAAS and "A Century of Progress," was held June 19-30, the first week being devoted to pure science and the second to applied science. A noted feature of the first week was the presence of 27 distinguished foreign scientists, including Lipót Fejér, Niels Bohr, Tullio Levi-Civita and Enrico Bompiani. Board business included a report on the part of the MAA's funds which were tied up in the Oberlin Savings Bank since the "bank holiday" in February.

Williams College in Williamstown, MA, hosted the September 1934 summer meeting, held jointly with the 40th summer meeting of the AMS. The AMS colloquium lectures were given by Norbert Wiener on "Fourier transforms in the complex domain," as originally planned by Wiener and R. A. C. Paley, recently deceased. The second MAA session included E. T. Bell's retiring presidential address, "The place of rigor in mathematics," which was read by H. W. Brinkman. There was reference to an exhibit to be shown at the upcoming December NCTM-MAA meeting in Pittsburgh, the first MAA meeting shared with NCTM. Of the 267 attendees, 145 were MAA members.

The September 1935 meeting was held at the University of Michigan. Of the 310 attendees at this AMS-MAA meeting, 169 were members of the MAA. There was also a joint session of the AMS and the newly-formed Institute of Statistics. J. D. Tamarkin indicated that some mathematicians have an inferiority complex, but that others have an unfortunate superiority complex. "For it is one thing to develop a correct mathematical paper, and quite another to prepare it in a form that is clear and readable, some mathematicians not deigning to descend to the level of those who seek to understand their papers." The AMS colloquium lectures were given by H. S. Vandiver on Fermat's last theorem and related topics. One of the excursions was to Greenfield Village where Henry Ford had assembled exhibits of materials of the past "which are of interest to the present and posterity." Others visited the Ford factory.

The August 1936 meeting was held at Harvard University in conjunction with the proceedings of the Tercentenary of Harvard College. G. H. Hardy brought greetings from "Cambridge on the Cam" to "Cambridge on the Charles." He also gave an AMS-MAA lecture on "The Indian Mathematician Ramanujan." Other speakers included R. Carnap, E.J. Cartan, L.E. Dickson, T. Levi-Civita, and at an Association session, C. Carathéodory. There were excursions to historical sites in Boston and to an exhibit at MIT of their differential analyzer that could solve complex differential equations. A garden party at the Harvard College Observatory was hosted by Mrs. Harlow Shapley. A group photo of the attendees was taken on the steps of the Widener Library. With 1000 participants, the meeting surpassed both AMS and MAA records. There were 351 MAA members present.

At the 1937 summer meeting at Pennsylvania State College, MAA president A. J. Kemper spoke about his dismay upon coming to the United States and of finding the low character of freshman and sophomore courses in college mathematics. He urged the enrollment of a much larger number of secondary school teachers in the Association and more frequent meetings of the Sections with high school teachers. AMS president R. L. Moore expressed alarm that, up to 1933, only 22 American PhDs in mathematics had published more than 30 papers. There was dismay that H. E. Slaughter had died on May 21, 1937. There were presentations about his career and reference to memorial papers. The AMS Colloquium Lectures on "Continuous geometry" were given by John von Neumann. The Board reaffirmed its endorsement of the World Calendar and requested that the government support this at the League of Nations. Less than half (209) of the 457 attendees were MAA members.

The usual summer meeting was canceled for 1938 in deference to the Semicentennial Celebration of the AMS.

The September 1939 meeting was held at the University of Wisconsin. Excursions included a complimentary trip to and tour of the George Banta Publishing Company's plant in Menasha. Banta was the publisher of the Monthly for many



years, including difficult times during World War II. AMS Colloquium Lectures were given by A. A. Albert on "Structure of algebras," and by M. H. Stone on "Convex bodies." 371 attended the meeting, among them 181 MAA members.

At the September 1940 meeting, the Board voted a subvention of \$1000 this year and \$500 for each of the next four years toward *Mathematical Reviews*. As a consequence, members could subscribe annually to the journal for \$6.50 during that period. A session was devoted to problems in ballistics and aviation and to a report of the joint AMS-MAA War Preparedness Committee. The report emphasized ways mathematicians could serve their country in time of war: (1) Through the solution of mathematical problems essential for military or naval science or for rearmament; (2) Through the preparation of mathematicians for research essential in connection with item (1); and (3) Through the strengthening of undergraduate mathematics education so that it affords adequate preparation in mathematics for military and naval service. The committee also suggested three resolutions to the Board recommending ways that schools can implement item (3).

The next summer meeting, in Chicago in 1941, was held jointly with the AMS, the Institute of Mathematical Statistics (IMS) and the Econometric Society, and had 649 attendees, including 313 MAA members. This meeting was part of the University of Chicago's celebration of its 50th anniversary of its founding. The theme of the celebration was, "New Frontiers in Education and Research." The Board voted that the December 1942 meeting would be in New York City, but this meeting was later canceled at the request of the Office of Defense Transport.

At the Chicago meeting, the Secretary-Treasurer, W. D. Cairns, indicated that he would retire at the end of 1942, "in the conviction that a younger person should succeed to this position." He had held this position since the founding of the MAA in 1915.

The 25th summer meeting was held in September 1942 at Vassar College in Poughkeepsie, New York. This meeting was in conjunction with meetings of the AMS and the IMS. There was already discussion about the challenge of adapting mathematics to the war effort. There was a joint session with IMS on "The applicability of mathematical statistics to war efforts." AMS President Marston Morse addressed the MAA Board about deferments for mathematics students who (1) give promise of becoming researchers, (2) plan to become college teachers, or (3) plan to go into high school teaching. Board members agreed with deferments for the first two groups but not the third, even in states with shortages of high school teachers. Future MAA-President R. L. Wilder gave the AMS Colloquium Lectures on "Topology of Manifolds." The Board voted to "recall our acceptance of the invitation to meet at Boulder in the summer of 1943, and to express our hope that we may meet there when normal times return."

There was a summer meeting in 1943, but located closer to population centers. It was held at the New Jersey College for Women (now associated with Rutgers

University) in conjunction with meetings of the AMS and IMS. E. J. McShane gave the AMS Colloquium Lectures and other AMS lectures were given by Antoni Zygmund and F. D. Murnaghan. MAA presentations included one on "Mathematical properties of military maps," two about the Navy V-12 college training programs, and two about Army meteorology training programs. There was also a report from the War Policy Committee. At this meeting, the Board discussed whether to hold meetings during the war emergency. It was agreed to hold the summer and annual meetings for 1944 jointly with the AMS, "at times and places to be determined later." 314 people attended the meeting; 173 were members of the MAA.

The August 1944 meeting at Wellesley College was joint with AMS and IMS. The joint dinner for the three organizations was welcomed by Captain Mildred H. McAfee, president of Wellesley College, Naval Reserve Lieutenant Commander, and head of the WAVE organization; WAVE is an acronym for Women Accepted for Volunteer Emergency Service. Einar Hille gave the AMS Colloquium Lectures. There was a joint MAA-IMS session on "Potential opportunities for statisticians and the teaching of statistics." The Board voted to support *Mathematical Reviews* for three more years. The Board also voted in favor of a bylaw amendment to abolish institutional memberships.

There was no summer meeting in 1945, though at the 1944 winter meeting, the Board voted to accept an invitation to meet in June 1945 at McGill University in Montreal, following a meeting of the Canadian Mathematical Congress (CMC). However, this AMS-MAA meeting was canceled by order of the Office of Defense Transport. The meeting of the CMC was where it "was originally conceived as the Canadian Mathematical Congress." (The current name, Canadian Mathematical Society, was adopted in 1979.) Almost no Americans attended, but Mr. and Mrs. Garrett Birkhoff, Claude Chevalley (then at Princeton), Louis Nirenberg, John von Neumann and a few others did. Total attendance: 239.

The August 1946 meeting was held at Cornell University; 584 people attended, including 277 MAA members. The six MAA presentations were given by G. B. Price, D. V. Widder, R. P. Agnew, H. M. Gehman, Lt. Col. R. C. Yates, and E. A. Whitman. At the Board meeting, it was reported that the *Annals of Mathematics* were increasing their subscription rate and that it would no longer be able to offer the special rate of \$2.50 per year to MAA members.

The summer meeting in 1947 was held at Yale University in New Haven, Connecticut, jointly with AMS and IMS. Association speakers included C.B. Allendoerfer, E. Artin, A. Zygmund, and M. Kac. An MAA session, titled "How to solve it" and chaired by George Pólya, was a symposium on mathematical problems at the college level. Participants included J. L. Synge, H. S. M. Coxeter, A. M. Gleason, Tibor Rado, L. M. Kelly and E. P. Starke. Short talks were given by presidents of the three organizations, IMS, MAA and AMS: William Feller, L. R. Ford, and Einar Hille. The AMS Colloquium Lectures were given by Oscar Zariski. There were 730 in attendance including 700 mathematicians of whom 297 were members of the

Association. There was a symposium of computing machines featuring John von Neumann of Princeton University.

The 30th summer meeting was held in September 1948 at the University of Wisconsin. This meeting was held in conjunction with meetings of the AMS, IMS, the Econometric Society, and Section A of AAAS. A joint session on stochastic processes was devoted to a symposium on the theory of games. Two of the five MAA presentations were on "Mathematical problems associated with the use of laminates in aircraft" and "Exterior ballistics of artillery rockets." There were opportunities to visit the Washburn Astronomical Observatory, the U.S. Forest Products Laboratory, and the Headquarters of the U.S. Armed Forces Institute. There were more than 700 attendees, including 320 MAA members. The MAA's sessions were held on a Monday afternoon and a Tuesday morning. AMS sessions began on Tuesday afternoon and continued through Friday morning.

A special joint meeting with the American Society for Engineering Education was held at Rensselaer Polytechnic Institute in Troy, New York, June 20-21, 1949. About 150 persons attended sessions of the MAA, including 88 MAA members. There was an evening meeting of the Board.

The MAA met at the University of Colorado in August 1949, jointly with AMS, IMS, and the Econometric Society. A total of 770 people registered for the meeting, with 335 of them from the MAA. The MAA sessions were held Monday afternoon and Tuesday morning, whereas the AMS sessions ran from Tuesday afternoon through Friday afternoon. This included an MAA symposium on the mathematical training for social scientists. During the same week, the NCTM met at the University of Denver. Again there was an evening meeting of the Board.

There was no summer meeting in 1950, because the International Congress of Mathematicians was held at Harvard University that year.

The 1951 summer meeting was held at the University of Minnesota, in conjunction with meetings of the AMS, IMS, the Econometric Society, and Section A of the AAAS. The first MAA session was devoted to the teaching of undergraduate collegiate mathematics and included an address, "Let us teach guessing," by George Pólya. There was also a panel discussion on the content of the undergraduate mathematics curriculum. The Board adopted a resolution affirming its steady intention to conduct scientific meetings, social gatherings and other affairs so as to promote the interests of mathematics without discrimination as to race, creed, or color. It authorized and requested the President to determine the best means to avoid discrimination by consulting with chairmen and secretaries of the sections and with other appropriate MAA members. There were 623 attendees, including 269 MAA members.

The 1952 summer meeting was held at Michigan State College in East Lansing. This meeting was held in conjunction with meetings of the AMS, IMS, the Econometric

Society, and Pi Mu Epsilon. The first series of MAA Hedrick Lectures were given by Tibor Rado on "Derivatives and Jacobians." There was an MAA symposium on the mathematical training of engineers. Tour opportunities included trips to the Oldsmobile plant, the Henry Ford Museum and Greenfield Village in Dearborn. The AMS Colloquium Lectures were given by Alfred Tarski. Of the 734 registrants, 321 were members of the MAA. The Board approved publication of a *Joint List of Members* with the AMS. The Board also authorized a letter to Oklahoma institutions indicating grave reservations about the state's Loyalty Oath Law of April 9, 1951.

The first summer meeting held outside of the United States was held in 1953 at Queen's University and the Royal Military College in Kingston, Canada. (Previously, the 1921 winter meeting was held at the University of Toronto.) Among the 637 registrants, 293 were MAA members. This meeting was held in conjunction with meetings of the AMS, the Canadian Mathematical Congress, the IMS, and the Econometric Society. There were joint sessions with the Canadian Mathematical Congress. Paul R. Halmos gave the Hedrick Lectures on "Axiomatic set theory," and the AMS Colloquium Lectures were given by Antoni Zygmund.

The 35th summer 1954 meeting was held at the University of Wyoming, in conjunction with meetings of the AMS and Canadian Mathematical Congress. L. H. Loomis gave a series of Hedrick Lectures on convex sets. About 450 people registered, and 235 of them were MAA members. The attendance was the lowest since the Wellesley College summer meeting in 1944. The location of the Amsterdam International Congress of Mathematicians (ICM) scheduled for September 2-9 could have been partly to blame for the low attendance. The registration fee was \$1 with \$0.50 for an accompanying adult. Dormitory accommodations were available at a rate of \$4 for a double and \$3 for a single. Participants could book rooms with private baths at the Connor Hotel for \$3.75 for a single and \$5.50 for a double. Bus fare from the airport was \$1.10 and cab fare for one person per ride anywhere in the city was \$0.35. In addition, five-day fishing licenses were available. There was a tea for women, a trip to Vedauwoo, a place of great natural beauty in the mountains east of Laramie, a square dance at the University, and an excursion to the Snowy Mountains. It was suggested by the organizers that visitors bring warm clothing for excursions because the days are seldom hot and the nights are always cold. It was announced at the Board meeting that, effective August 20, there were 5,615 members of the MAA. Apparently, the first section officers meeting occurred at this meeting.

The 1955 summer meeting was held at the University of Michigan, in conjunction with seven other mathematics and statistics organizations. Mark Kac gave the Hedrick Lectures. Of the 1170 registrants, 489 belonged to the MAA. It is interesting to observe that this is the last meeting for which the report in the *American Mathematical Monthly* lists all the attendees who were members of the MAA, from Smbat Abian to R. E. Zindler. There was an outing and picnic at Kensington Metropolitan Park a few miles north of Ann Arbor. A summer meeting registration fee of \$1 was instituted.

The 1956 summer meeting was held at the University of Washington. This meeting was held in conjunction with meetings of the AMS, IMS, the Biometric Society, and the Econometric Society. The Hedrick Lectures, "Category and measure," were given by J. C. Oxtoby of Bryn Mawr College. There were 919 persons registered, including 303 MAA members. There was an informal party at the Officers' Club at the Sand Point Naval Air Station, a salmon bake at Seward Park, and a boat cruise along the Seattle waterfront and around Bainbridge Island. At the Board meeting, the Secretary-Treasurer was instructed to prepare bylaw amendments which included the provision to increase the annual dues from \$4.00, set in 1920, to \$5.00. Heretofore, MAA dues had been regarded as one of nature's constants.

In 1957, the four-day summer meeting was held at Pennsylvania State University, in conjunction with meetings of AMS, SIAM and Pi Mu Epsilon. There were 924 registered persons, including 451 members of the MAA. Two symposia were on the program, one on "Probability, Statistics, Logic, and Foundations" organized by S.S. Wilks and another on "Freshman Calculus and Calculus for Freshmen."

The 1958 summer meeting was held at MIT, the Massachusetts Institute of Technology, jointly with several organizations. There were 1232 registrants, with 519 members of the MAA. The meeting included a Special Session on Films. The Board voted that "future annual meetings are to be scheduled during the last week in January and are to be primarily hotel meetings." Proposed amendments to the bylaws included separation of the office of Secretary-Treasurer into offices of Secretary and Treasurer, to be held by separate persons. The registration fee was raised to \$2.

In 1959, the four-day summer meeting was held at the University of Utah. The meeting was held in conjunction with meetings of the AMS, the Association for Symbolic Logic, SIAM, Pi Mu Epsilon, and Mu Alpha Theta. The eighth series of Hedrick Lectures were given by William Feller. President Carl B. Allendoerfer presided over an open conference on High School Contests at this summer meeting and at the next summer meeting. The Board authorized publication of Carus Monograph No. 13, "A Primer of Real Functions," by R. P. Boas. Victor Klee reported on the upcoming Stockholm ICM in 1962. The MAA ran sessions on four consecutive days. There were 985 persons registered, and 423 were MAA members.

There were 760 registrants, including 568 MAA members, at the summer meeting in August 1960, held at Michigan State University. Nearly 75% of those in attendance were MAA members. Sessions were scheduled for Monday and Tuesday morning, and for Tuesday and Wednesday afternoon. The Hedrick Lectures were given by Ivan Niven. There was a session on special programs in the teaching of undergraduate mathematics, highlighting programs at Princeton, Wesleyan, Dartmouth, Reed College, and Haverford. The Board abolished the Carus and Slaughter Committees and, in their place, established a standing Committee on Publications.

The August 1961 meeting was held at Oklahoma State University. The tenth series of Hedrick Lectures were given by R. H. Bing. R. J. Wisner reported on the first full year of operation of the Committee on the Undergraduate Program in Mathematics (CUPM) under its 1960 grant from the National Science Foundation. CUPM was originally established in about 1953. There were 580 attendees, including 394 MAA members. The program included a session on computers. One speaker, M. de V. Roberts from IBM (International Business Machines Corporation) concluded that in the future, optimization will probably become so important that the idea of a fast inefficient compiler will become obsolete.

The 1962 summer meeting was held at the University of British Columbia, in conjunction with meetings of AMS and SIAM. Of the 594 persons registered, 407 were members of the MAA. The Hedrick Lectures were given by Andrew M. Gleason. The MAA ran sessions on teaching machines and on inequalities. Victor L. Klee reported on the 1962 International Congress of Mathematicians in Stockholm. He briefly discussed the work of Hörmander and Milnor. Among the films presented was the latest produced by the films committee, "The Kakeya Problem" (in color and with animation) with A. S. Besicovitch as lecturer.

The 1963 summer meeting was held at the University of Colorado in Boulder. There were 1302 registered persons, and 915 were MAA members. The meeting was held in conjunction with meetings of the AMS, SIAM, Pi Mu Epsilon and Mu Alpha Theta. The scheduled Hedrick Lecturer, Hans Rademacher, was unable to attend the meeting. His prepared lectures were presented by his colleague Emil Grosswald. There was a session devoted to Emil Artin, his life and works, with lectures by H. J. Zassenhaus (Notre Dame) and Helmut Hasse (Hamburg University). There was a session on training secondary school teachers and the secondary-school mathematics curriculum.

The summer meeting in 1964 was held at the University of Massachusetts in Amherst. Registered attendance was 1495, including 958 MAA members. There were joint sessions with SIAM and the IMS. Prior to this meeting, sections had the option of inviting the President to attend their section meetings, with the national MAA covering the expenses. The President was unable to accept many of the invitations. At this meeting, the policy was changed so that sections could invite MAA officers of their choice.

The 1965 summer meeting was held at Cornell University in Ithaca, New York. There were 1470 registrants, with 1014 MAA members. For the first time, and on an experimental basis, most lectures were videotaped. The Hedrick Lectures were on "Differential Topology" and were given by John W. Milnor. Since the MAA was celebrating its 50th year, there was a dinner in honor of the charter members. It was attended by 18 of the 121 living charter members.

The 1966 summer meeting was held at Rutgers—The State University, in New

Jersey. This meeting was in conjunction with the IMS as well as AMS, SIAM, Pi Mu Epsilon and Mu Alpha Theta. There was a report on the 1966 International Congress of Mathematicians in Moscow. This was the largest Congress so far, with about 5000 mathematicians from every major country except for Communist China. The presentation was by Seymour Sherman, John R. Isbell and W. Wistar Comfort. There were 1856 registered person, 926 of whom were MAA members.

The 1967 summer meeting was held at the University of Toronto in Canada. Among the 2250 registrants, there were 850 MAA members. There was a joint session with the Econometric Society. The Board elected A. B. Willcox as Executive Director of the MAA, effective about August 1, 1968. The move of the MAA headquarters from Buffalo, New York, to Washington, D.C. was announced. There was also announced the appointment of a Committee on Assistance to Negro Colleges.

The 1968 summer meeting was a three-day meeting held at the University of Wisconsin, Madison. The film showings included all the films produced by the Calculus Film Project. At the Business Meeting, the title of Executive Director Emeritus of the Association was conferred on Harry M. Gehman, and A. B. Willcox was introduced as the newly appointed Executive Director. There were 2029 registered individuals, among them 891 members of the MAA. The registration fee was raised to \$3.

The 1969 summer meeting was held at the University of Oregon, Eugene. Of the 1398 registered persons, 588 were MAA members. The Board approved holding joint meetings with NCTM at the time of their Annual Meetings in April in even-numbered years, while continuing to meet jointly with NCTM in January in odd-numbered years. At the business meeting, a motion deploring a decision of the Board of Administrators of Tulane University that went against the advice of its faculty committee was tabled by a vote of 135 in favor to 92 against.

The summer 1970 meeting was held at the University of Wyoming, Laramie, in conjunction with meetings of the AMS, the IMS, and Pi Mu Epsilon. There were 928 registrants, including 574 MAA members. The meeting included a joint session on population ecology with the IMS.

The summer 1971 meeting was held at Pennsylvania State University, in conjunction with the AMS, Pi Mu Epsilon and Mu Alpha Theta. Of the 910 registered persons, 683 were MAA members. The meeting included a panel discussion on, "What Undergraduate Courses Will be Taught in 1984?" The panel included Garrett Birkhoff, Murray Gerstenhaber and J. B. Rosser, and the focus was on how computers will impact the mathematics taught. At the Business Meeting, a resolution was presented concerning the war in Southeast Asia. The President then read the following from Robert's Rules of Order: "a main motion that proposes action outside the scope of the organization's object as defined in the By-Laws or corporate charter is out of order unless the assembly by a two-thirds vote authorizes its introduction." The President ruled the motion out of order, and this

was sustained by a standing vote. The registration fee was raised to \$5.

The summer 1972 meeting was held at Dartmouth College in Hanover, New Hampshire. The Earle Raymond Hedrick Lectures were given by Peter Lax who spoke on scattering theory. John G. Kemeny gave an invited address on "What every college president should know about mathematics." There was a film program and a four-hour computer course in BASIC. The planned family activities included two one-day climbs in the nearby hills, a trip to the Shelburne Museum in Vermont, softball on the College Green every afternoon, canoe and kayak lessons offered by the Ledyard Canoe Club, a New England Clambake at the College Park on the banks of the Connecticut River, and nursery and play-school for children ages 1 to 6 from 9 am to 1 pm every weekday afternoon. For adults, the Tavern Room at the Hanover Inn remained open until midnight. The registration fee was raised to \$7.

The summer 1973 meeting was held at the University of Montana in Missoula. In part, because of the gasoline crisis, there were only 571 registered persons at this meeting, including 412 MAA members. The twelve AMS invited addresses were not well attended, and thereafter the AMS cut back on the number of invited addresses at summer meetings. There was a joint AMS-MAA panel discussion on "The role of the Ph.D. in Two-Year College Teaching." The Board voted to approve an agreement for the MAA to acquire the Two-Year College Mathematics Journal.

The summer 1975 meeting was held at Western Michigan University in Kalamazoo, in conjunction with meetings of the AMS, Pi Mu Epsilon and the Association for Women in Mathematics (AWM). There were nineteen films shown over three evenings. Among the 982 registrants, there were 646 MAA members. The Board approved the formation of the MAA's 29th section, the Intermountain Section. It was announced that at the International Mathematical Olympiad held in Bulgaria, the United States entry finished in third place. AWM held a panel discussion, "Noether to Now – The Woman Mathematician." The registration fee was raised to \$10.

The summer meeting in 1976 was held at the University of Toronto in Canada. The meeting was held in conjunction with a meeting of the Mathematicians Action Group as well as with AMS, AWM and Pi Mu Epsilon. There were 1088 registrants, including 661 MAA members. Also, the solution of the four color problem was announced at this meeting. The Board voted to award an honorary life membership to Martin Gardner for his substantial contributions to the public appreciation of mathematics. The first 25-year member banquet was held. The event was originally labeled a 30-year member banquet and later named the silver and gold banquet.

The summer 1977 meeting was held at the University of Washington in Seattle. Among the 1132 registrants were 665 MAA members. A panel discussion on how to teach mathematics included two presentations, one by Peter J. Hilton and one by George Pólya. The Board approved a statement entitled, "On the Preparation Needed by Students Planning to Take Collegiate Mathematics," prepared by a joint



MAA-NCTM Committee, chaired by Gerald L. Alexanderson. It was to be submitted to NCTM for its approval. An attendee collapsed and died at the registration desk.

The August 1978 meeting was held at Brown University in Providence, Rhode Island, jointly with AMS and the Association for Women in Mathematics (AWM). There were 963 registered persons including 578 MAA members. The series of Hedrick Lectures were given by Richard K. Guy. At the business meeting, it was announced that the MAA had purchased its new headquarters at 1527-29 Eighteenth St., Washington, D.C., on July 10, 1978. It was also announced that Edmund Gregory Lee had been selected as the first AMS-MAA-SIAM Congressional Fellow, and that MAA will continue funding the position for 1979-1980.

The summer 1979 meeting was held at the University of Minnesota in Duluth. The meeting was held in conjunction with AMS, AWM, and Pi Mu Epsilon. There were 833 registrants, including 581 members of the MAA. The Hedrick Lectures were given by Mary Ellen Rudin, and one of the hour lectures was presented by Constance Reid, a non-mathematician author whose sister was Julia Robinson, who in 1983 would become the first woman president of the AMS. The first MAA minicourses were offered at this meeting. The Board gave tentative approval for the publication of an Association newsletter, to commence in January 1981.

The 1980 summer meeting was held at the University of Michigan in Ann Arbor. There were 1225 mathematicians registered for the meeting. Gerald Porter spoke on the use of computer generated graphics in undergraduate math education, and Frank Wattenberg offered a minicourse on teaching calculus using infinitesimals. There was a reception hosted by the Michigan Section of the Association. It was a full program. One evening an MAA-CUPM panel discussion on modeling and operations research was held concurrently with the 25-member banquet and a film program. There was a session on archives and history of mathematics and a picnic and beer party at Romanoff's on the Pontiac Trail.

The 1981 summer meeting was held at the University of Pittsburgh in conjunction with meetings of the AMS, AWM, and Pi Mu Epsilon (PME). There were 692 mathematicians in attendance including 534 MAA members. There was a special evening session devoted to computers in the undergraduate mathematics educational curriculum. There was a wine and cheese reception hosted by the Allegheny Mountain Section followed by a special evening session devoted to microcomputer graphics in undergraduate mathematics.

The summer meeting in 1982 was held at the University of Toronto. There were 1183 mathematicians in attendance including 762 MAA members. There were four one-hour joint AMS-MAA lectures. In addition, J. Barkley Rosser, G.W. Whitehead, Clifford Truesdell, and Jean Dieudonné participated in a joint AMS-MAA session on history of mathematics. Ross A. Honsberger spoke on a collection of mathematical morsels. The first contributed paper sessions, sponsored by the Committee on Two-Year Colleges, were offered at the meeting. Two minicourses were offered, one of

them a repeat of a very popular course offered in Pittsburgh the previous summer and in Cincinnati in January. There were continuous showings of films and video tapes throughout the meeting.

The 1983 summer meeting was held at the State University of New York in Albany. There were 822 registered mathematicians. The MAA Committee on Exchange of Information in Mathematics sponsored an evening session, "The MAA newsletters: a dialogue among editors," featuring *Focus* editor Marcia Sward. Prior to the formal meeting, there was a dinner cruise on Lake George aboard the *Ticonderoga*.

The 1984 summer meeting was held at the University of Oregon in Eugene in conjunction with meetings of the AMS and PME. There were 699 mathematicians in attendance. The Hedrick Lectures were given by Neil J.A. Sloane of AT&T Bell Labs. Carl Pomerance spoke on how not to factor an integer. Constance Reid discussed the problems in writing about the non-technical lives of scientists. Robert Jewett spoke on the applications of geometry to the social sciences. There was a panel discussion on curricula at two-year colleges and a one-hour presentation of AAAS's "Challenge of the Unknown." The meeting also featured a salmon bake. In addition, the local arrangements committee sponsored a number of excursions following the meeting including ones to Crater Lake and the Oregon Coast.

The 1985 summer meeting was held at the University of Wyoming in Laramie with 713 mathematicians in attendance. Joint AMS-MAA invited addresses on the history and development of mathematics were given by Richard A. Askey, Saunders Mac Lane, and Benoit Mandelbrot. The Committee on Computers in Mathematics Education sponsored a session moderated by Gerald Porter on the use of symbolic manipulation programs in undergraduate mathematics.

The ICM meeting was held at Berkeley in 1986. As a result, there was no joint summer meeting.

The 1987 summer meeting was held at the University of Utah in Salt Lake City with 634 mathematicians in attendance. It was held in conjunction with the 90<sup>th</sup> summer meeting of the AMS. The Hedrick Lectures were given by William P. Thurston. The Committee on the Mathematical Education of Teachers sponsored a panel discussion on the pros and cons of the new directions in teacher education. The Committee on the Participation of Women sponsored a panel discussion titled "What are the problems? What are the Solutions?" The Committee on Student Chapters and Activities sponsored the first MAA student paper session. The AWM, Joint Policy Board for Mathematics (JPBM), PME, NSF, and the Interagency Commission from Extramural Mathematics Programs sponsored sessions at the meeting. There was an outing including dinner and sight-seeing at the nearby Snowbird Ski and Summer Resort.

In 1988 the 67<sup>th</sup> summer meeting of the Association was held in Providence, RI, in conjunction with the centennial meeting of the AMS. There were 1949

mathematicians in attendance. Joint AMS-MAA invited addresses were given by Raoul Bott, Peter Lax, and Saunders Mac Lane. The only other MAA activities offered at the meeting were minicourses. Nearly 500 registered for an AMS short course on chaos and fractals coordinated by Robert Devaney and Linda Keen. Registrants and their guests were offered a New England clambake at Francis Farm in Rehoboth, Massachusetts.

The 1989 summer meeting was held at the University of Colorado in Boulder. There were 1001 mathematicians in attendance. A tour of Rocky Mountain National Park was offered prior to the meeting. The 37<sup>th</sup> Earle Raymond Hedrick Lectures were given by Persi Diaconis. Joint AMS-MAA lectures were given by John H. Conway, Serge Lang, and Jean Taylor. There was a public hearing on concerns of mathematics majors sponsored by the MAA Committee on Accreditation. A panel discussion on computers in calculus reform was sponsored by the Committee on Computers in Mathematics Education. In celebration of the 75<sup>th</sup> anniversary of PME, the MAA cosponsored a talk on the mathematics of identification numbers given by Joseph Gallian. PME sponsored a Western Hoe Down in the gardens of the Clarion Harvest Hotel.

The MAA's 75<sup>th</sup> anniversary meeting was held in 1990 at Ohio State University in Columbus with 1299 mathematicians in attendance. The first day of the meeting was devoted entirely to activities of the Association. No committee meetings were scheduled for that day. The day began with an opening ceremony followed by an MAA Invited Address by G. Bailey Price and the installation of a plaque outside of the room where the Association was organized in 1915. The Hedrick Lectures were given by Philip Davis. In addition, there were ten joint invited addresses cosponsored by representatives from AAAS, ACM, AMATYC, AMS, AWM, CMS, NAM, NCTM, PME, and SIAM. Saunders Mac Lane, John W. Morgan and Michael G. Crandall gave the AMS-MAA Invited Addresses. MAA Invited Addresses were given by G. Baley Price, Judith V. Grabiner, Wade Ellis, Jr., Paul R. Halmos, Peter J. Hilton, and Cathleen S. Morawetz. A special MAA talk was given by Arthur Benjamin. Other joint invited addresses were given by Richard A. Askey (AAAS-MAA), John A. Dossey (MAA-NCTM), Ivan Niven (MAA-PME), Paulo Ribenboim (CMS-MAA), Richard Tapia (MAA-SIAM), Juris Hartmanis (ACM-MAA), Carl L. Prather (MAA-NAM), Judith Roitman (AWM-MAA), and Karl J. Smith (AMATYC-MAA). There was a special presentation by the sculptor/mathematician Helaman Ferguson.

In 1991 the Association held its 70<sup>th</sup> summer meeting at the University of Maine in Orono. Mathematicians in attendance numbered 1052. The basic registration fee was \$85. In order to make the summer meeting more attractive to participants and their families, the AMS-MAA Joint Meetings Committee made some changes in the program. The meeting was promoted as a Mathfest. A new format was used whereby all major addresses were held in the mornings and other program elements were scheduled in the afternoons. In the evening prior to the scientific sessions, there was an opening banquet. The Mu Alpha Theta Lecture, a new program element, was given by Paul A. Foerster who spoke on calculus in an age of

technology. G.W. Mackey gave the AMS history of mathematics lecture. The first SUMMA (Strengthening Underrepresented Minority Mathematics Achievement) Workshop was held. There were skits on changing the climate sponsored by the Committee on Participation of Women. The Committee on Student Chapters and Activities sponsored the first student poster session. The MAA Mathematical Contest in Modeling winners were first recognized at a summer meeting. This format was retained for the remaining joint AMS-MAA MathFests (through the Seattle meeting in 1996), except for the 1993 meeting in Canada. MAA summer meetings after 1996 have been called MathFests, though the format of these meetings has evolved.

There was no Mathfest in the summer of 1992. The AMS met with the London Mathematical Society at the University of Cambridge. The MAA Board of Governors and several committees met in Quebec City, Canada.

In August of 1993 an international joint AMS-CMS-MAA meeting was held at the University of British Columbia in Vancouver, Canada. There were 1143 mathematicians in attendance. Sir Michael Atiyah, Master of Trinity College, Cambridge, gave the Hedrick lectures on recent developments in geometry and physics. There were a number of joint activities. The AMS-CMS-MAA-NAM invited address was given by Aderemi Oluyomi Kuku from the University of Ibadan in Nigeria and President of the African Mathematical Union. Barry Mazur gave the AMS-CMS-MAA invited address. There were four CMS-MAA invited addresses given by Jonathan Borwein, Gilles Brassard, Deborah Hughes Hallett, and Uri Treisman. The MAA-MAT (Mu Alpha Theta) Lecture was given by Richard Rhoad. There was a CMS-MAA session on interacting with elementary school children. The CMS-MAA Student Lecture on the unity of combinatorics was given by Richard K. Guy.

The 1994 Mathfest was held at the University of Minnesota in Minneapolis with 766 mathematicians in attendance. The basic registration fee was \$125. The MAA Committee on Student Chapters sponsored the first student hospitality and information center which was organized by Richard and Araceli Neal. This meeting introduced the first class of Project NExT fellows to the mathematical community.

The 1995 Mathfest was held at the University of Vermont in Burlington. There were 1009 mathematicians registered for the meeting. It was announced that the Joint Meetings Committee, which bears financial responsibility for these meetings, decided to reduce costs by eliminating some traditional services at Mathfest and making substitutions for some others. Activities at the meeting included a breakfast for MAA chapter faculty advisors, section coordinators, and PME advisors, an AMS history of mathematics lecture, and a SUMMA special presentation. The MAA student lecture was given by David Bressoud. At the 25-year member banquet, Colin Adams performed his Mel Slugbate routine giving the audience a tour of a hyperbolic universe and beyond. The main social event was a dinner cruise on Lake Champlain.

The 1996 Mathfest was held in Seattle, Washington with 1177 mathematicians in attendance. This was the last summer meeting held jointly with the AMS. Atle Selberg gave an AIM-MAA invited address on the history of the prime number theorem; AIM refers to the American Institute of Mathematics. There was a symposium on the Riemann Hypothesis organized by J. Brian Conrey, Douglas Lind, and Stephen Sorenson. There were seven joint AMS-MAA invited addresses given by: Colin C. Adams and Edward B. Burger jointly, Sylvain E. Cappell, Joel Hass, Robert Moses, Gian-Carlo Rota, Alan C. Tucker, and one by the Secretary of Defense, William J. Perry. The Hedrick Lectures were given by Richard A. Askey. There were also two regular MAA invited addresses. The MAA Student Lecture was given by Kenneth A. Ross. Victor Hill gave a performance on the mathematical aspects of the music of Bach. The Committee on Curriculum Renewal Across the First Two Years offered a two-day workshop on calculus prior to the meeting.

The Mathfest 1997 was held in Atlanta, Georgia. There were 767 attendees. The meeting began with a "Georgia on my Mind Mathfestival." The first MAA summer short course was offered. The subject was "Epidemiology Modeling" and it was co-sponsored by the Center for Disease Control. There was a tribute to Paul Erdős consisting of an invited address by Ron Graham and a special session focusing on Erdős' life, mathematics, and his impact on individuals and the profession.

The Mathfest in 1998 was held in Toronto, Canada. There were 746 in attendance. At the 25-year member banquet, Peter Rosenthal spoke on "Why I'd rather be a mathematician than a lawyer." The meeting was intended to be joint with SIAM, but that organization held their meeting at the University of Toronto while the Association met at Ryerson University. There were no joint social events.

The summer meeting in 1999 was held in Providence, Rhode Island. There were 1089 in attendance. At the opening banquet, Colin Adams emceed the Number Hall of Fame Awards Ceremony. There were a number of new features at this meeting. Tom Rishel offered the first teaching workshop for graduate students, Tom Banchoff gave the first James R.C. Leitzel lecture, and the Committee on Contributed Papers sponsored the first general contributed paper session. Providence Mayor 'Buddy' Cianci welcomed attendees of the 25-year member banquet by giving a spirited lecture on the beauties of the city. Carl Pomerance gave the Hedrick Lectures. Andrew Gleason spoke at the 25-Year Member Banquet on the history of cryptography. The meeting concluded with a genuine Rhode Island Clambake.

In the summer of 2000, the MAA met at the Sunset Village complex on the UCLA campus just prior to an AMS meeting at UCLA on Mathematical Challenges of the 21<sup>st</sup> Century. There were 870 in attendance. Constance Reid spoke at the opening banquet on the alternative life of E.T. Bell. Jeffrey Lagarias spoke on the  $3x + 1$  problem. Ron Graham gave an AMS-MAA Presidents' Address. A tour of the new Getty Museum was offered.

The MathFest was held in Madison, Wisconsin in 2001. There were 1057 in attendance. Most sessions were held at the Monona Terrace Community and Convention Center which had been designed by Frank Lloyd Wright. Robert E. Witte of the Exxon Mobile Foundation gave the Leitzel Lecture on what he has learned from the mathematics community. Frank Morgan spoke on the proof of the double bubble conjecture. There was a special session on increasing the participation of women in mathematics. B. Lyn Bodner organized an Islamic workshop. Frank Morgan organized the first invited paper session whose topic was "Soap Bubble Geometry."

The 2002 MAA MathFest was held in Burlington, Vermont. There were 1239 in attendance.

Catherine Goldstein gave an invited address on Fermat's arithmetic. Charlie Smith offered a popular cinemath session which featured clips for the silver screen relating to mathematics. The first SIGMAA session to appear on a summer meeting program was sponsored by the SIGMAA on Research in Undergraduate Mathematics. There was a contributed paper session on research in undergraduate mathematics, an AWM reception, and an Association of Gay, Lesbian, Bisexual, and Transgendered Reception. The 25-year member banquet became the Silver and Gold banquet. A Lake Champlain dinner and cruise aboard the *Spirit of Ethan Allen III* was offered.

The 2003 MathFest was held in Boulder, Colorado. There were 1021 in attendance. Sessions were held in the Millennium Harvest Hotel and at the University of Colorado. Joan R. Leitzel gave the Leitzel Lecture. The AWM-MAA Louise Hay Lecture was given by Katherine P. Layton who spoke on what she had learned in forty years of teaching in Beverly Hills 90210. Art Benjamin, the MAA Student Lecturer, spoke on the mental art of calculation. Janet Anderson, Annalisa Crannell, Mary Ellen Foley, and Tommy Ratliff organized a workshop on student writing. There was a western barbeque and square dance.

The 2004 MathFest was held in Providence, Rhode Island. There were 1232 in attendance. Dawn Alisha Lott, as the MAA-NAM David Blackwell Lecturer, spoke on mathematical predictors and aneurism treatment. Steven Sigur spoke on the mystery of the missing tangents. Tony DeRose of Pixar Studio spoke on film making and how computer graphics is changing Hollywood. H.W. (Chuck) Straley appeared in period costume to give a Newtonian dramatic presentation. As Student Lecturer, Mario Martelli spoke on the secret of Brunelleschi's cupola. The AMS sponsored an open house at their headquarters. A graduate student reception and six sessions aimed at concerns of graduate students were offered. The meeting concluded with a New England dinner followed by a sock hop dance.

The 2005 MathFest was held in Albuquerque, New Mexico. There were 1135 in attendance. As J. Sutherland Frame Lecturer, Art Benjamin spoke on proofs that really count. Fern Hunt's David Blackwell Lecture was entitled, "Techniques for visualizing frequency patterns in DNA." Aparna Higgins organized an invited paper

session on graph theory for undergraduate research. The Committee on Graduate Students and the Young Mathematician's Network sponsored the first graduate student poster session. The social highlight of the meeting was a Los Amigos Roundup, a southwestern barbeque at the Rio Grande Bosque among giant 150-year-old cottonwood trees.

The 2006 MathFest was held in Knoxville, Tennessee. There were 1070 in attendance. The registration fee was \$200. There was a banquet in appreciation of Don Albers' many contributions to the Association. Trachette Jackson gave the first AWM-MAA Etta Z. Falconer Lecture. The SIGMAA on Environmental Mathematics offered a geology tour conducted by Gareth Davies of the Cambrian Groundwater Company. Timothy Gowers, a Fields Medalist from Cambridge University, gave the Hedrick Lectures on arithmetic combinatorics. Bud Brown and Art Benjamin organized an invited paper session on gems of recreational mathematics. David Manderscheid organized a workshop on training teaching assistants. The first Math Jeopardy undergraduate team competition was offered. The day prior to the meeting a Great Smoky Mountains Arts and Crafts Community tour was offered. In addition, there was a Tennessee riverboat dinner cruise aboard the *Star of Knoxville*.

The 2007 MathFest was held in San Jose, California. There were 1410 in attendance. Jennifer Tour Chayes gave the Earle Raymond Hedrick Lectures on the mathematics of dynamic random networks. The first session on mathematical circles, which bring mathematicians into direct contact with high school and middle school students, was held. Historically speaking, Judith Grabiner spoke on Lagrange and the parallel postulate, and William Dunham spoke on Euler. Katherine St. John gave the AWM Etta Z. Falconer Lecture on comparing evolutionary trees. The MAA met jointly with the Society for Mathematical Biology and the Euler Society. The silver and gold banquet was held at Santa Clara University.

The 2008 MathFest was held in Madison, Wisconsin. There were 1402 in attendance. Erik Demaine gave the Earle Raymond Hedrick Lectures on fun with algorithms and folding. Laura Taalman gave the MAA Lecture for Students on Sudoku. Tom Banchoff narrated a movie about Flatland. A two-day short course on game-theoretic modeling was organized by Michael A. Jones. The SIGMAA on Mathematics and the Arts organized an art exhibit. The first annual MathFest 5K fun run/walk was held.

The 2009 MathFest was held in Portland, Oregon. There were 1516 in attendance. Ravi Vakil gave the Hedrick Lectures on classical and modern geometry ideas. Robert Osserman spoke on the shape of the gateway arch. Joan Ferrini-Mundy gave the Leitzel Lecture. Persi Diaconis gave the J. Sutherland Frame Lecture. Tours were offered to the Portland Rose Gardens and to Columbia River Gorge.

The 2010 MathFest was held in Pittsburgh, Pennsylvania. There were 1548 in attendance. The MAA Lecture for Students was given by Sommer Gentry who spoke on being faster, safer, and healthier with operations research. Ami Radunskaya's

Falconer Lecture focused on the mathematical challenges in the treatment of cancer. Nine SIGMAAs sponsored thirteen sessions at the meeting. A tour of the Clayton and Frick Museum and Victorian home of Henry Clay Frick, art patron and chairman of Carnegie Steel Company, was offered.

MathFest was held in Lexington, Kentucky in the summer of 2011. There were 1400 in attendance. Manjul Bhargava gave the Hedrick Lectures. There was an AWM-MAA “Morning Coffee” reception before the Etta Z. Falconer Lecture and an evening devoted to backgammon. Tours were offered to experience different aspects of the bluegrass region.

The 2012 MathFest was held in Madison, Wisconsin. There were 1473 in attendance. David Mumford gave the AMS-MAA Joint Invited Address on “The Synergy of Pure and Applied Math, of the Abstract and the Concrete.” Melanie Wood gave the PME J. Sutherland Frame Lecture on “The chemistry of primes.” There was a session on “Face Off”, the Wisconsin Section’s mathematics game show.

The 2013 MathFest was held in Hartford, Connecticut. There were 1505 in attendance. In lieu of an opening banquet, a grand opening reception was held in the exhibition hall. Patricia Kenshaft gave the Falconer Lecture, Ann Watkins the Leitzel lecture, and Frank Morgan the MAA Lecture for Students. The Canadian Society for History and Philosophy of Mathematics held its annual meeting in conjunction with MathFest. Jeremy Gray gave the CSHPM Kenneth O. May Lecture. Excursions were offered to Yale University, and to Nook Farm to tour the Mark Twain and Harriett Beecher Stowe homes.