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ABSTRACT

This monograph describes the establishment, activities, and accomplishments of the American Mathematical Association of Two Year Colleges (AMATYC), from its foundation in 1974 to 1994. Section I reviews the history of AMATYC, describing the organization's foundation to provide a voice for two-year college mathematics educators and its first annual conference in 1975; the founding of the group's journal, "The AMATYC Review"; AMATYC's affiliation with the Conference Board of the Mathematical Sciences; its growth to 951 individual members and 78 institutional members by 1983; the initiation of pre-conference workshops in 1983; the establishment of an annual $3,000 scholarship for the winner of the Student Mathematics League Contest in the same year; the formation of AMATYC committees and affiliates on academic computing, developmental mathematics, education, equal opportunity in mathematics, placement/assessment, the Student Mathematics League, technical mathematics, and grants; the shift in the 1990s to national involvement in policy issues; the opening of the AMATYC national office; and the AMATYC mission statement in its original and current forms. Section II lists Mathematics Excellence award recipients for 1984-86, 1988, 1990, and 1992. Section III provides a list of AMATYC presidents and their institutions, conference location and attendance figures, and conference chairs for 1974-94. Section IV highlights AMATYC state level affiliate organizations, listing affiliates' state/region, name, and founding year. Finally, sections V and VI provide an appendix discussing professionalization trends and two-year college mathematics and a glossary of abbreviations. Contains 11 references. (MAB)

The History of AMATYC

1974-1994

American Mathematical Association of Two-Year Colleges

The emblem design on the front cover is from the official AMATYC banner, designed by Professor Vivian M. Dellinger, Florida Junior College at Jacksonville. This banner was selected in a nationwide contest among AMATYC members and their colleges. The first presentation was made at the 10-year anniversary meeting in New York, 1984.

The AMATYC History was updated in 1994 by Richelle M. Blair, AMATYC Historian, who also wrote the appendix. Special thanks to Phil Cheifetz, Nassau Community College, Garden City, New York.

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I. THE HISTORY OF AMATYC, 1974-1994

INTRODUCTION

During the late 1960s and the decade of the 1970s, two-year colleges blossomed from their early beginnings and became recognized as an important educational alternative in the United States. It was not surprising that, out of necessity, the same years witnessed the formation of many statewide two-year college mathematics associations. In 1967, New York state college mathematics teachers formed the New York State Mathematics Association of Two-Year Colleges (NYSMATYC) to act as a primary resource and decision making body for their mushrooming two-year college community. The Pennsylvania State Mathematical Association of Two-Year Colleges (PSMATYC) was formed in 1970. One year later, the Oklahoma Junior College Mathematical Association (OJCMA) was formed as an offshoot of a wider-based organization and was aimed at the improvement of instruction, better communication, and articulation. In 1972, the California Mathematics Council of Community Colleges (CMC^3) became the state's first association formed by and for two-year college mathematics instructors. The Ohio Mathematics Association of Two-Year Colleges (OhioMATYC) was also formed in 1972. MATYC associations flourished in Connecticut, Florida, Illinois, Maryland, Massachusetts, and Washington State.

Many of these organizations were formed because of the encouragement and impact of The Mathematics Associations of Two-Year Colleges (MATYC) Journal which began in 1967, edited by George Miller and Frank Avenoso (Nassau Community College, NY) as a New York State newsletter. In 1970, this publication, *The MATYC Journal*, expanded to include nationwide editorial representation and input. The Journal's articles, letters, and editorials reflected the long-felt need in two-year college educators to develop a separate national association to complement existing mathematics interest groups.

In 1973, *The MATYC Journal* began planning for a national forum which would call together members of existing MATYC groups as well as other interested parties. The first national conference, "Symposium for Two-Year College Mathematics Educators," organized by Phil Cheifetz and other MATYC Journal board members, was a huge success with 283 educators attending from all areas of the country, including Hawaii and Alaska. Attendees of that New York City meeting held in April, 1974, participated in the birth of the American Mathematical Association of Two-Year Colleges (AMATYC).

AMATYC BEGINS

The evening meeting on April 25, 1974, officially entitled, "*The MATYC Journal* and the Two-Year College Movement," witnessed the first stirrings of AMATYC. At that meeting, Herbert Gross of Bunker Hill Community College (MA) responded to a discussion generated by the audience with an impassioned plea to two-year college mathematics educators to "stand up and be counted!" Joe Cicero of Clayton Community College (GA) and Bob Bitts of Arapahoe Community College (CO) were the first to respond to Gross, but Gross's enthusiasm and charisma inspired the entire audience. By acclamation, Gross was chosen to chair a steering committee of approximately 60 persons interested in forming a national association of two-year college mathematics educators.

Herb Gross, Founding President of AMATYC

On April 26, at the first official meeting of the steering committee, John Massey of Chesapeake Community College (MD) gave AMATYC its first official breath of life: "I move that this body at this time set about to form an organization which will be the national voice of two-year college mathematics teachers and . . . further that we set out to name this organization and to identify its goals and purposes." It was moved also that "the national association form two committees, a constitution committee and a conference committee, and that three officers, president, vice-president and treasurer, be appointed. Herb Gross, John Massey, and Sister Clarice Sparkman of San Jose City College (CA) were nominated respectively for these positions. The nominations were unanimously approved by those present.

In response to a prevailing theme of the conference, new president Gross established a Developmental Mathematics Curriculum Committee (DMC) as the first academic committee of AMATYC and appointed Frank Greene of Essex County Community College (NJ) and Richard Hyman of Everett Community College (WA) as co-chairpersons. Other committees met at this time also: the Constitution

Committee chaired by Robert Bitts of Arapahoe Community College (CO) and the Conference Committee chaired by William Drezdzon of Oakton Community College (IL).

The Constitution Committee, comprised of Sister Sparkman, John Massey, Bob Bitts, Donald Cohen, Mike Colchiski, and Mike Totoro, met in Colorado in October, 1974. This committee officially named the organization AMATYC and formulated a proposed constitution. The constitution, which was formally ratified in October, 1975, established these fundamental purposes of the new association:

1. To provide a national forum for the exchange of ideas to further develop and improve the mathematics education of students in two-year colleges.
2. To coordinate activities of affiliated organizations on a national level.
3. To promote the professional development and welfare of its members.

The constitution provided for regional vice-presidents, along with the offices of president, president-elect, treasurer, secretary, and past president. A delegate assembly composed of state delegates and representatives from affiliated organizations was formed to function as the policy-making body of the association.

The Developmental Mathematics Curriculum (DMC) Committee with active members Frank Greene, Richard Hyman, Alice Berridge, Jim Baldwin, Juliana Corn, Carmine DeSanto, Bob Rosenfeld, Mike Totoro, Dennis Christy, and a large group of supporting members, planned and organized a survey of existing remedial programs in two-year colleges. This 64-page report was published in October, 1975 by AMATYC, and marked the release of the organization's first study.

THE FIRST ANNUAL CONFERENCE

AMATYC's first annual meeting was held in Chicago, from October 29 to November 1, 1975, with approximately 300 people in attendance. Bill Drezdzon chaired a large committee which handled all details of the conference. Phil Cheifetz, who had been instrumental in organizing the successful New York City conference the previous year, provided input and counsel. The following members were actively involved in planning the conference: John Bradburn, Martin Brown, Teresa Butzen, Allan Christenson, Joseph Cicero, Ann Dice, William Dolid, George Dorner, Elaine Drezdzon, Hal Hackett, Rudy Maglio, Mike McSwigan, Ray Moehrlin, Charlene Pappin, and Sister Lorraine Veldenz.

At the conference, Joseph Lipson, University of Mid-America (NE), delivered the keynote address on "The Emerging Student." Thirty-six sessions were held with speakers representing 14 states. At the general business meeting, the constitution was ratified and the following officers were elected: Sister Sparkman, president; Joseph Cicero, president-elect; Mike Colchiski, secretary; and Phil Cheifetz, treasurer.

The second annual meeting was held in San Francisco, October 26-30, 1976. Conference chair Charles Miller and his committee arranged pre-conference tours and workshops including tours of the individual study center, computer center, space science center, and electronics museum at Foothill College and of the learning centers at West Valley College, Los Medanos College, and Contra Costa College. At the general business meeting, President Cicero began his term of office with new officers: Phil Cheifetz, president-elect; Mike Colchiski, secretary; and Brandon Wheeler, treasurer; and regional vice-presidents: Bob Bitts, central; Gene Cooper, southeast; John Massey, mid-Atlantic; Sam McInroy, northeast; Ray Moehrlin, midwest; Gus Pekara, southwest; Jim Snow, northwest; and Ray Wuco, west. Amber Steinmetz and James Baldwin were officially appointed as DMC committee co-chairpersons. Plans for DMC program evaluation guidelines and for a multiple choice test-item pool were developed.

INCREASED NATIONAL STATURE

Discussion of the inter-relationship of AMATYC and the National Science Foundation (NSF) was an important part of the San Francisco meeting. President Cicero pointed out that NSF had never funded a two-year college mathematics curriculum program. There was evidence that NSF proposals were reviewed and evaluated by mathematicians who were unaware of the needs and problems of the two-year college. Cicero began to establish lines of communication with NSF. To this end, on March 3, 1977, he addressed the Senate Special Subcommittee on Science, Research and Technology.

AMATYC's third annual meeting was held in Atlanta, October 11-15, 1977. Conference chair Tom Thomson and committee members arranged for a two-day pre-conference workshop on "College Mathematics Teaching and the Development of Reasoning" presented by Phil McGill and Mel Thornton. There were 71 different conference sessions. Norman Schaumberger, Bronx Community College (NY), Ronald Graham of Bell Labs, and Edwin Moise addressed the assembly at general sessions.

At the general business meeting President Cicero transferred the presidency to Phil Cheifetz and introduced the new officers: Mike Colchiski, president-elect; Brandon Wheeler, treasurer; Mike Totoro, secretary; and regional vice-presidents: Chris Boldt, Cliff Fairley, James Kropa, Al Liberi, John Massey, Elaine Pavelka, Amber Steinmetz, and Ray Wuco. Awards were presented to Jim Baldwin, Amber Steinmetz, and Tom Thomson for their outstanding service to AMATYC.

The chairpersons of the following committees made important reports: Developmental Mathematics Committee, Amber Steinmetz and Jim Baldwin; Grants, Richard Lefkon and Jim Snow; Constitution, Joe Menard; Education, Tom Carnevale; Membership, Terese Butzen; Public Relations, Alice Berridge; Liaison, Al Utterback

and Vernon Hood; Newsletter, John Pace; and Conference, Tom Thomson and Alice Hagood. President Cicero announced that California, Florida, Tennessee, Texas, New York associations, The American Symposium of Publishers, the National Council of Teachers of Mathematics (NCTM), and the Mathematical Association of America (MAA) Board of Governors had invited AMATYC participation at their respective meetings.

AMATYC's annual conference for 1978 was held in Houston, October 11-14. Conference chair Alice Hagood and committee members planned tours of local colleges and of NASA's Johnson Space Center. More than 500 people attended the different parts of this conference. There were 58 speakers and over 25 book publishers and manufacturer representatives displaying their wares. Morris Kline, Professor Emeritus, New York University, addressed the body in a keynote address on "Saving Undergraduate Education" and Astronaut Lt. Col. Robert F. Overmyer gave the concluding address. At the general session president Cheifetz announced that membership of AMATYC now exceeded 500.

Awards and recognition of outstanding service to AMATYC were made to John Bradburn, Terese Butzen, Joe Cicero, Bill Drezdzon, Alice Mae Favro, Alice Hagood, Mike Totoro, and Brandon Wheeler. Results of the AMATYC election were announced: Mike Colchiski, president; Bill Drezdzon, president-elect; Brandon Wheeler, treasurer; Mike Totoro, secretary; and regional vice-presidents: Jim Baldwin, Chris Boldt, George Cocks, Bob Carson, Jim Kropa, Elaine Pavelka, Amber Steinmetz, and Ray Wuco.

THE AMATYC REVIEW BEGINS

The AMATYC Newsletter, first published in fall, 1977, by John Pace and later by Alice Berridge and Doug Brown, gave news of AMATYC committees and reports from executive board members. The format was changed in November, 1978, to a booklet, and the sections on reports and announcements were expanded. In 1979, *The AMATYC Review* emerged as a full-fledged journal with Alice Berridge, Doug Brown, and Alice Hagood as the first editorial staff.

A Constitution Committee, chaired by George Cocks and Jim Baldwin, drew up a revised constitution which was formally accepted by the membership in a ballot in fall, 1979. The new Constitution expanded the Delegate Assembly to include representatives from state affiliate organizations in addition to state representatives appointed by the AMATYC regional vice presidents. The delegates responsibilities were expanded to solicit membership in addition to the efforts of the Membership Committee, chaired by Alice Berridge (NY).

More than 300 members attended the 1979 conference held in San Diego, October 18-20, to hear 61 speakers at 54 different sessions. The conference arrangements were made by Joan Adaskin, Tom Carnevale, and Betty Otten. Moshe

F. Rubinstein, University of California at Los Angles, who made the conference keynote address, was highlighted in the second issue of *The AMATYC Review*, "Moshe Rubinstein, Master Teacher" by Roger Breen of Florida Junior College. The concluding address was by Peter A. Griffin, California State University: "52 Things To Remember When Playing Blackjack."

The newly elected officers were Bill Drezdzon, president; Brandon Wheeler, president-elect; Amber Steinmetz, treasurer; Michael Totoro, secretary; and regional vice-presidents: Merilee Adams, James Baldwin, George Cocks, Patricia Dyer, Elaine Pavelka, Stephen Rodi, Karl Smith, and Will Worthey. Officers began serving two-year terms in accordance with a constitutional amendment passed in 1979.

CBMS MEMBERSHIP

Several regional newsletters were published for the first time in the early 1980s with the purpose of supplying local AMATYC news to members. Regional vice-presidents helped increase the effectiveness of the Delegate Assembly by appointing a wide network of campus representatives. Also at this time, the Conference Board of the Mathematical Sciences (CBMS), unanimously voted to invite AMATYC to affiliate membership.

The DMC Committee continued its varied sub-committee activities on minimal competencies, hand-held calculators, evaluation models, teacher qualifications, and test-item pools under the direction of new chair Patricia Dyer. Annual DMC reports and a survey done in 1975 were filed with ERIC.

Also in 1979, Phil Cheifetz was appointed Executive Director, a position AMATYC experimented with for two years and discontinued in 1981 when Cheifetz had to resign for personal reasons. The year 1979 also marked the establishment of institutional memberships. Sixteen institutions were honored in volume 1, number 2, of *The AMATYC Review* as the first AMATYC institutional members.

The 1980 conference was held in Washington, D.C., October 10-13. Its success was attributed to chairperson Josephine Gervase of Manchester Community College (CT). Featured speaker was Kyo Jhin, United States Department of Education, who addressed the need for government support of proposals from two-year colleges. At the conference, Brandon Wheeler assumed the president's role. Karen Sharp and Steven Terry were appointed to fill unexpired terms as the Midwest and Northwest region vice-presidents, respectively. New AMATYC committees were initiated at the Delegate Assembly meeting: AMATYC and Legislative Action; Encouragement of Women in Mathematics, chaired by Marilyn Mays (TX); and Computers in Math, chaired by Donald Coscia (NY).

In April, 1981, the AMATYC executive board accepted the resignation of president Brandon Wheeler and appointed James Baldwin as president pro-tem. Spring, 1981, also marked the development of two executive board manuals: a policy

handbook and a comprehensive planning manual for conferences were developed through long hours of board deliberation, under the direction of Amber Steinmetz.

In the summer of 1981, AMATYC had grown to 849 individual members and 74 institutional members. Plans were finalized for the October 7-11, 1981, conference in New Orleans under the direction of Gail Jones of Delgado Community College (LA). The tradition of an annual breakfast began at this conference.

At the 1981 New Orleans conference James Baldwin became president. Other officers beginning their terms were: Amber Steinmetz, president-elect; Patricia Dyer, treasurer; Alice Berridge, secretary; and regional vice-presidents: Ray Collings, George Cocks, Josephine Gervase, Stephen Rodi, Karen Sharp, Steven Terry, Karl Smith, Will Worthey. Bill Leonard, California State University at Fullerton, launched the conference with his keynote address "Standing by the Seashore." Workshops and 50 sessions were attended by the more than 300 participants. At the Delegate Assembly, plaques were presented to past presidents Phil Cheifetz, Mike Colchiski, and Bill Drezdzon and to AMATYC committee workers Judy Ackerman, Alice Berridge, Jerry Blemker, Jim Bulwan, Ron Davis, Josephine Gervase, Alice Hagood, Margie Hobbs, Kenneth Hogan, Bill Jones, Gail Jones, and Paul Thomas.

STRONG GROWTH

During 1981-1983, AMATYC grew in membership to 951 individual members and 78 institutional members. President James Baldwin led a systematic and successful effort to bring AMATYC into the national mathematics education arena. With increased joint efforts with the MAA and NCTM, AMATYC became known as one of the three principal organizations in the United States concerned with mathematics education.

The 1982 Las Vegas conference was a success as academic committees continued their work and issues were discussed in 50 workshops and lectures. Some of the major topics of concern were: (1) academic computers and how to enhance the use and functioning of computers in a two-year college course of study; (2) the developmental mathematics curriculum and ways to improve and develop curriculum materials, as well as diagnostic and evaluative procedures, for remedial two-year college students; (3) promotion of relevant and quality professional training of two-year mathematics teachers; (4) encouragement of women in mathematics to enhance the position of women mathematicians; (5) a student mathematics league to encourage student excellence at the two-year college via an annual mathematics competition and other activities; (6) technical mathematics to improve the two-year college technical mathematics programs.

Shirley Trembley of Bakersfield College (CA) was general chair for the Las Vegas Conference. Program chairs were Margie Hobbs and Cheryl Cleaves of State Technical Institute in Memphis (TN). Jerry Blemker of Vincennes University (IN)

continued as exhibitor chair, a service he had offered to AMATYC for many years. Dr. Lester H. Lange keynoted the conference with his "Mathematical Stories." Las Vegas also witnessed another AMATYC first: the Committee for the Encouragement of Women in Mathematics created a roommate network to promote networking and encourage conference attendance.

WORKSHOPS BECOME POPULAR

November, 1983, found AMATYC in Orlando, Florida, with conference attendance of 500. Bill Jordan of Seminole Community College (FL) was conference chair assisted by program chair Charles Luttrell. Keynoter John Neff of Georgia Institute of Technology intrigued the audience with his question "Where Does Mathematics Lead Us." Norman Schaumberger of Bronx Community College (NY) entertained a packed AMATYC breakfast with humorous vignettes from his years of teaching.

One Orlando conference highlight was the joint AMATYC-MAA panel on curriculum organized by AMATYC president James Baldwin with panelists Geoffrey Akst, John Bradburn, Solomon Garfunkel, Henry Pollock, Amber Steinmetz, and Gail Young. Many members arrived early for a full day of six "pre-conference" workshops. In addition to the 45 individual sessions, computer workshops and sessions were especially popular.

New officers for 1983-1985 were announced at the Orlando conference to take AMATYC into its second decade: Amber Steinmetz, president; Stephen Rodi, president-elect; Patricia Dyer, treasurer; Karl Smith, secretary; James Baldwin, past-president; and regional vice-presidents: Ray Collings, Dale Ewen, Joyce Friske, Herb Garrett, Larry Gilligan, George Jain-Cocks, Steven Terry, and Will Worthey. Jay Huber was appointed editor of *The AMATYC Review*.

During Amber Steinmetz's presidency AMATYC was the recipient of a Sloan Foundation Grant which led to the first summer institute at Rexburg, ID. Ricks College was selected as the site of the Institute due to the enthusiasm of Steven Terry (Northwest region vice president) and his desire to host the institute on his campus. Karen Sharp (Mott

Rick's Summer Institute: Dan Thomas, Instructor; Mr. & Mrs Steven Terry; Karen Sharp

Community College, MI) served as the project director of the grant. This summer institute proved so popular that it became an annual AMATYC institute.

TENTH ANNIVERSARY

The annual AMATYC conference returned to New York City in October, 1984, to celebrate the tenth anniversary of AMATYC. The conference chair, Allen Angel, presided over a very successful conference. By the 1984 conference the membership of AMATYC had grown to 1,000 individual members, 20 state affiliates, and 75 institutional members. Black and gold were chosen as the official colors of AMATYC. The Mathematics Excellence Award was established to recognize educators who have made outstanding contributions to mathematics or mathematics education at the two-year college, and the first award was presented to Phil Cheifetz by President Amber Steinmetz. National recognition was extended to AMATYC with invitations to participate in two national conferences: The CBMS Conference "New Goals for Mathematical Sciences Education" (1983), and the Sloan Conference titled "New Directions in Two-Year College Mathematics" (1984).

The next conference (1985) was held at the Hyatt Regency in Memphis, TN, under the direction of conference chairs Margie Hobbs and Cheryl Cleaves. It was announced that the new board consisted of Stephen Rodi, president; Karl Smith, president-elect; Amber Steinmetz, past-president; Cheryl Cleaves, secretary; Karen Sharp, treasurer; and regional vice-presidents: Allen Angel, Dale Ewen, Joyce Friske, Wanda Garner, Herb Garrett, Margie Hobbs, Donna Szott, and Steven Terry. Don Albers was given the second Mathematics Excellence Award.

In 1985, AMATYC published a booklet, *Methods of Evaluating College Remedial Mathematics Programs*, and the official newsletter, "The AMATYC News," began under the leadership of Dale Ewen. A sub-committee of the Education Committee, chaired by John Impaglianzzo, presented their report titled "The Two-Year College Teacher of Mathematics." KYMATYC joined the list of AMATYC affiliates in 1985. Don Cohen was appointed editor of *The AMATYC Review*, with Paul Dudenhefer, production manager, and Eleanor Young, advertising manager.

The 1986 conference held in the west under the shadow of the Golden Gate Bridge in San Francisco, CA, had 602 attendees. The general chairperson for this conference was Hal Andersen. Jean Burr Smith was the recipient of the Mathematics Excellence Award, and it was also announced that henceforth this award would not be given more frequently than every other year. The Committee for the Encouragement of Women in Mathematics changed its name to the Equal Opportunity in Mathematics Committee and its purpose was expanded to include mathematics education issues related to ethnicity as well as gender.

Kansas City was the site for the 1987 conference and was chaired by Forrest Lowe. New officers announced in Kansas City were: Karl Smith, president; Dale Ewen, president-elect; Stephen Rodi, past-president; Cheryl Cleaves, secretary;

Karen Sharp, treasurer; and regional vice-presidents: Allen Angel, Ron Beeler, Wanda Garner, James W. Hall, Margie Hobbs, Marilyn Mays, Jim Newsom, and Barbara Poole.

ANNUAL SCHOLARSHIP INSTITUTED

Karl Smith announced the institution of an annual Charles D. Miller Memorial scholarship in the amount of $3,000 sponsored by Scott, Foresman/Little, Brown Publishers. The recipient of the scholarship would be the winner of the Student Mathematics League Contest, an annual mathematics competition that gives special recognition to two-year college mathematics students.

AMATYC Membership in 1987 reached 1,500 members. A presidential committee was appointed to develop innovative ideas for increasing membership. It was decided to undertake a major membership drive, and over the next two years membership grew to almost 2,000 members. Efforts were also made to formalize the grant writing process in order to position the organization for future developments in grants for two-year colleges. President Karl Smith made an increased awareness of the need for congressional support a priority of his term of office. In 1988, AMATYC became a member of the Council of Scientific Society Presidents (CSSP).

A SECOND ANNUAL SUMMER INSTITUTE ESTABLISHED

Under the leadership of Paul Calter, a second institute at Vermont Technical College was established in 1988. Conference planning was considerably enhanced by appointing a conference coordinator who would act as a liaison between the board and the conference chairperson. The first coordinator appointed was Cheryl Cleaves.

One of the most pressing issues of the time was the need for information about placement and assessment. Karl Smith appointed a Task Force on Placement and Assessment consisting of Lou Hoelzle, chairperson, Rikki Blair, Cheryl Cleaves, Dale Ewen, Wanda Garner, Bill Jordan, and Stephen Rodi. This committee heard testimony, collected evidence, and grew in size and interest, until in 1990 it was made a standing AMATYC committee.

The first international conference was held in Calgary, Canada, in 1988. Murray Klamkin was the keynote speaker, and Bill Leonard was the breakfast speaker. David Ropp, Rock Valley College, was the first student recipient of the $3,000 Charles D. Miller Memorial Scholarship. Peter Lindstrom was given the Mathematics Excellence award. The conference chairpersons, Steven Terry and Shao Mah, brought us all into the spirit of Western hospitality with white Calgary western hats evident everywhere. New affiliates AlaMATYC, GMATYC, IMATYC, KAMATYC, NCMATYC, NYSMATYC, and ORMATYC were welcomed into the AMATYC fellowship.

SPECIAL ISSUE OF *THE AMATYC JOURNAL*

Under the leadership of Don Cohen, editor of *The AMATYC Review*, the journal continued to grow and prosper. A special issue, *Two-Year College Mathematics Education for the 1990s*, was published as AMATYC assumed a greater leadership position for two-year college instructors. A donation of $5,000 from Hewlett-Packard made this issue possible.

AMATYC COMMITTEES

Committees and affiliates have added to the strength of AMATYC. Many of the academic committees were divided into several active subcommittees.

The Academic Computing Committee (Wade Ellis and Don Hutchinson, co-chairpersons) became a resource for both questions and answers pertaining to the instructional use of computing machinery in the mathematics classroom. The subcommittees of this committee were the Communications Subcommittee, the Conference and Institute Subcommittee, and the Grants Subcommittee.

The Developmental Mathematics Committee (Bob Malena, chairperson) actively sought to improve the quality of instruction and the student success rate in developmental mathematics courses by increasing communication among individuals involved in this endeavor and by improving methodology. The five subcommittees were the Computer Concerns Subcommittee, the Evaluation Subcommittee, the Hand-held Calculator Subcommittee, the Minimal Competencies Subcommittee, and the Student Learning Problems Subcommittee.

The Education Committee (William Schooley, chairperson) investigated the concerns of and promoted quality professional training of two-year college mathematics faculty and department chairs. The subcommittees were the Chairpersons Subcommittee, the Library Subcommittee, the Qualifications Subcommittee, and the Professional Concerns Subcommittee.

The concerns of the Equal Opportunity in Mathematics Committee (Hanna Schott, chairperson) were to address issues of women and minorities regarding their positions in mathematics and mathematics education. The subcommittees were the Womens' Issues Subcommittee and the Minorities' Issues Subcommittee.

The Placement/Assessment Committee (Lou Hoelzle, chairperson) was concerned with placement and assessment testing in mathematics. The main function was to serve as a resource and support group for members and their institutions who are dealing with the questions of placement testing and assessment.

The Student Mathematics League (Steve Blasberg, chairperson) encouraged student excellence at two-year colleges via an annual mathematics competition and other activities.

The Technical Mathematics Committee (Ray Collings, chairperson) provided a national contact point and forum for those who have an interest in technical mathematics in two-year colleges and post-secondary education. The subcommittees were the Engineering Technology Subcommittee, the Emerging Technology Subcommittee, the Trade/Industrial Technology Subcommittee, the Allied Health and Human Services Technology Subcommittee, the Business Technology Subcommittee, and the Computer/Data Processing Technology Subcommittee.

The Grants Committee (Susan Forman, chairperson) was charged to solicit and submit grant proposals on AMATYC's behalf and develop a comprehensive grants policy and related procedures.

AMATYC'S GROWTH CONTINUES

The 1989 conference held in Baltimore exceeded 700 attendees, and AMATYC faced the pleasant problem of outgrowing the planned facility. Barbara Gale, the conference chairperson, pulled together the resources of the conference committees. The keynote speaker was Millie Johnson, and the breakfast speaker was Bill Bompart. NDMATYC, and MinnMATYC were approved as new affiliates.

The new slate of officers was announced at the Baltimore conference: Dale Ewen, president; Karen Sharp, president-elect; Guesna Dohrman, secretary; Margie Hobbs, treasurer; Karl Smith, past-president; and the regional vice-presidents: Ron Beeler, Wanda Garner, Bill Jordan, Carol Kublin, Marilyn Mays, Jim Newsom, Barbara Poole, and Sandy Spears. A major document published jointly by AMATYC and the MAA, "A Curriculum in Flux: Mathematics at Two-Year Colleges," was available for the first time at the Baltimore conference. The Delegate Assembly approved an expenditure of $5,000 per year for clerical assistance or released time for the president beginning in 1992. This was a major step in providing future presidents assistance to carry out the enormous job of president.

The 1990 conference in Dallas welcomed new affiliates in Arkansas (ARKMATYC) and New Mexico (NMMATYC). The 1990 conference, chaired by Tommy Thompson and Eddie Robinson, was the first conference with over 1000 attendees. The keynote speaker was James Voytuk, representing project Mathematical Sciences in the Year 2000 (MS 2000). The breakfast speaker was Tom Cochran from Belleville Area College (IL).

In Dallas, the Delegate Assembly was charged with the review and development of policy statements on issues of mathematics reform, the role of technology in the classroom, two-year college mathematics faculty preparation, and the increase of part-time faculty.

Colorado (COLOMATYC) and Utah (UTMATYC) formally joined the AMATYC affiliates at the 1991 conference in Seattle. Vicky Ringen was conference

chairperson. Beverly J. Anderson, Director, Office of Minority Affairs at the Mathematical Sciences Education Board, delivered the keynote address titled "Community Colleges: Promises or Preclusions." The Saturday breakfast speaker was James M. Rubillo, Director of Academic Planning and Professional Development at Bucks County Community College, speaking on "Drug Testing, Casinos, and Booze: Lessons from the Public's Mathematics."

New officers began their terms at the end of the 1991 conference: Karen Sharp, president; Marilyn Mays, president-elect; Wanda Garner, secretary; Margie Hobbs, treasurer; Dale Ewen, past-president; and regional vice-presidents: Helen Burrier, David Gustafson, Therese Jones, Bill Jordan, Bill New, Vicky Ringen, Carol Westfall, and Susan Wood.

REGIONAL AMATYC CONFERENCES AND NEW SUMMER INSTITUTES

Professional development opportunities were extended to faculty in the Southeast Region through an AMATYC regional conference held at DeKalb College (GA) in May, 1991, chaired by Linda Exley. Karen Sharp, AMATYC president-elect, gave the keynote speech to 160 participants representing 48 colleges in 11 states and the District of Columbia. In addition to many sessions, William Haver, Associate Director, Education and Human Resources Division at the National Science Foundation, and Ray Shiflett, Executive Director of the Mathematical Sciences Education Board (MSEB), were invited to address special sessions.

The Albuquerque Marriott Hotel (NM) was the site of the first Southwest Region Conference in June, 1992, and was attended by 150 persons from 13 states. Conference co-chairs were Michele Diel, Vicki Froehlich, and Mary Robinson. The keynote address by Uri Treisman discussed curriculum reform in two-year colleges. Marilyn Mays, AMATYC president-elect, and Therese Jones, AMATYC Southwest region vice-president, were featured speakers at the luncheon.

With the success of AMATYC Summer Institutes in Idaho and Vermont, a third institute site was chosen at the College of Charleston (SC), offering its first courses in June, 1992, under the direction of Lou Roethel (NY).

AMATYC TURNS TO POLICY ISSUES AND NATIONAL INVOLVEMENT

Major documents for AMATYC were approved by the Delegate Assembly at the 1992 conference in Indianapolis: "Guidelines for the Academic Preparation of Two-Year College Mathematics Faculty," "Two-Year College Mathematics Department Guidelines," and the "AMATYC Strategic Plan." The Strategic Plan, directed by

Marilyn Mays, was written by a group of former and current board members, committee chairs and delegates and funded by a grant of $28,000 from the Exxon Educational Foundation. It was the first major effort of the AMATYC organization to review its mission and goals and set an agenda for the future.

Jaime Oaxaca, Vice Chairman of the Coronado Communication Corporation, gave the opening address at the 1992 Indianapolis conference attended by over 1000 persons and chaired by Lucreda Hutton. Dr. Arthur G. Hansen, former Chancellor of the Texas A & M System and President of Purdue University and Georgia Institute of Technology, spoke of the "Impact of Technology on the Teaching of Mathematics" in AMATYC's first afternoon general session. "Your Teaching Behaviour is Showing" was the theme of the Saturday breakfast speech given by Dr. James E. Wiegand, Dean of Continuing Education, Indiana University. Stephen Rodi (TX) was presented with the AMATYC Mathematics Excellence Award at the 1992 conference.

AMATYC Exhibits at Indianapolis

In 1992, AMATYC's influence at the national level increased with its participation in the newly formed Coordinating Board of AMATYC, MAA, and NCTM, called CBAMN. The purpose of this Board was to coordinate issues relating to the first two years of collegiate mathematics education. This Board consists of three members of each organization. Karen Sharp served as the chairperson of CBAMN through 1994. Gregory Foley and Ray Collings were AMATYC representatives to CBAMN during the formative period, followed by Marilyn Mays in 1992, and Wanda Garner in 1993. AMATYC also continued its membership in other national organizations.

AMATYC received a grant from the Exxon Educational Foundation in 1992 and the National Science Foundation (NSF) in 1993 to write *Standards for Curriculum and Pedagogical Reform in Two-Year College and Lower Division Mathematics.* The project directors, Marilyn Mays, Karen Sharp, and Dale Ewen, were assisted by Task Force members, including representatives from AMATYC, the American Mathematical Society (AMS), MAA, NCTM, and the National Association for Developmental Education (NADE): Darrell Abney, Geoffrey Akst, Nancy Angle,

Standards Task Force

Rikki Blair, Linda Boyd, Max Cisneros, Cheryl Cleaves, Betsy Darken, David Dudley, Carol Edwards, Greg Foley, Susan Forman, Judith Hector, Margie Hobbs, Robert Kimball, Edward Laughbaum, James Leitzel, Dean Priest, Bobbie Righi, Stephen Rodi, William Thomas, Sam White, Kathie Yoder and consultants Sol Garfunkel, Harvey Keynes, and P. Uri Treisman. The first circulating draft was distributed to the AMATYC membership in October, 1993. The second draft titled "Standards for Introductory College Mathematics" was presented at the 1994 AMATYC conference in Tulsa, OK.

AMATYC OFFICE OPENS

Competitive proposals were solicited in 1993 to determine the location of a national office for AMATYC. On September 1, 1993, the AMATYC office opened at State Technical Institute at Memphis in Tennessee. Cheryl Cleaves was appointed executive assistant to the AMATYC Board, assisted by Margie Hobbs, AMATYC Treasurer, for oversight and operation of the office. Bill Kelly became AMATYC's first full-time employee in October, 1993.

Marilyn Mays presenting plaque to Robert Dobbs (middle), VP Academic Affairs, Charles Henderson, Exec. Ass't. to Pres.

LARGEST ATTENDANCE EVER

The American (mathematical) Revolution was the theme of AMATYC's Nineteenth Annual Conference (1993) in Boston, MA. Over 1300 attendees participated in mini-courses, workshops, sessions, and informational forums. Conference co-chairpersons were Jack Keating and Helene Savicki. The conference began with the keynote address by noted educational leader David Pierce, President of the American Association of Community Colleges (AACC). Herb Gross, the founding president of AMATYC and of the New York affiliate (NYSMATYC) and a motivating force in the two-year college movement since 1958, was the breakfast

speaker. His speech, "The Teacher as Coach; or Bridging the Gap Between Access and Equal Opportunity" inspired the audience in 1993 as much as his speech in 1974 when AMATYC was formed. President Karen Sharp awarded AMATYC Presidential Awards to Rikki Blair, Greg Foley, and Phil DeMarois. Two new affiliates were welcomed: Wisconsin (WisMATYC) and Nevada (NEVMATYC).

The AMATYC Board formally approved the formation of the AMATYC Foundation in 1993 to promote and support the educational, literacy, and scientific activities of the organization. Chairperson Philip Cheifetz (NY) and the first Board of Directors, John Bradburn (IL), Margaret Lial (CA), R. David Gustafson (IL), C. Pat McKeague (CA), and Karen Sharp (MI), were named.

The Delegate Assembly acted on several important issues at the 1993 conference. Three position statements were approved on the following subjects: Undergraduate Textbooks, Equal Opportunity in Mathematics, and Calculators. In addition, the AMATYC annual dues were raised to $50. The following newly elected officers began their terms of office: Marilyn Mays, president; Wanda Garner, president-elect; Bob Malena, treasurer; Martha Clutter, secretary; Karen Sharp, past-president; and the regional vice-presidents: Helen Banes, Rikki Blair, Sadie Bragg, Linda Exley, Therese Jones, Bill New, Vicky Ringen, and Susan Wood.

AFFILIATE INSTITUTES AND WORKSHOPS

OhioMATYC hosted the first and second annual Graphing Calculator Institutes at Columbus State Community College, Columbus, Ohio, in February, 1993 and 1994, attended by 120 and 401 participants, respectively. Ed Laughbaum, past-president of OhioMATYC, organized both conferences. Bert Waits, Frank Demana, and many other Ohio mathematics faculty presented at both institutes. The profits from the institute registration were used to establish student scholarships. OhioMATYC also sponsored a week long graphing calculator conference, "Enhancing College Mathematics with Graphing Calculators," held July 11-15, 1994, at Columbus State Community College under the direction of Ed Laughbaum. Thirty-one attendees from seven states and the United Kingdom discussed the use of technology in mathematics courses, developmental to calculus.

In order to bring current technological developments in mathematics education to individual college departments, AMATYC sponsored its first Visiting Technology Workshops in 1994. Coordinated by Larry Gilligan (OH) and taught by Larry and eight other professors, Darrell Abney, Judy Ackerman, Dana Calland, Chris Christensen, Jeff Cole, Pamela Matthews, Jim Rowell, and Linda Taylor, technology workshops have been tailored to fit the needs of individual departments, using existing equipment and facilities.

THE PAST AND THE FUTURE

During the last 20 years, the membership of AMATYC has grown to more than 2800 individual members and over 100 institutional members. AMATYC is the only organization exclusively devoted to providing a national forum for the improvement of mathematics education in the first two years of college. The 39 affiliate organizations, serving 43 states, form a leadership pool and information network that is coordinated by AMATYC and is dedicated to meeting the challenges facing two-year college mathematics education.

AMATYC has expanded the original charge adopted in 1974 and is committed to the following mission:

1. To positively impact the preparation of scientifically and technologically literate citizens.
2. To lead the development and implementation of curricular, pedagogical, assessment, and professional standards for mathematics in the first two years of college.
3. To assist in the preparation and continuing professional development of a quality mathematics faculty and that is diverse with respect to ethnicity and gender.
4. To provide a network for communication, policy determination, and action among faculty, other professional organizations, accrediting associations, governing agencies, industry, and the public sector.

Recognizing the vital importance of the first two years of collegiate mathematics education to the future of our students and the welfare of our nations, AMATYC stands ready to advance mathematics education in the first two years of college.

The hundreds of two-year college mathematics faculty who responded to the call of Professor Gross in 1974, and new members since then, have helped AMATYC flourish. They should be proud of their first twenty years. They and AMATYC have every reason to look to an exciting and productive future with confidence based on a successful past.

II. MATHEMATICS EXCELLENCE AWARDS

Year	*Recipient*	*President*
1984	Phil Cheifetz	Amber Steinmetz
1985	Don Albers	Amber Steinmetz
1986	Jean Burr Smith	Stephen Rodi
1988	Peter Lindstrom	Karl Smith
1990	Warren Page	Dale Ewen
1992	Stephen Rodi	Karen Sharp

III. AMATYC PRESIDENTIAL AND CONFERENCE HISTORY

Year	*President*	*Conference City*	*Conference Chair*
1974		New York, NY 300 attendees	Phil Cheifetz
1975	Herb Gross Bunker Hill CC, MA	Chicago, IL 300 Attendees	William Drezdzon
1976	Sister Clarice Sparkman San Jose City College, CA	San Francisco, CA 406 attendees	Charles Miller
1977	Joseph Cicero Clayton CC, GA	Atlanta, GA 450 Attendees	Tom Thomson
1978	Phil Cheifetz Nassau CC, NY	Houston, TX more than 500 attendees	Alice Hagood
1979	Mike Colchiski Central Florida, FL	San Diego, CA more than 300 attendees	Joan Adaskin Betty Otten
1980	William Drezdon Oakton CC, IL	Washington, D.C. 344 attendees	Josephine Gervase
1981	Jim Baldwin Nassau CC, NY	New Orleans, LA 326 attendees	Gail Jones
1982	Jim Baldwin Nassau CC, NY	Las Vegas, NV more than 300 attendees	Shirley Trembley
1983	Jim Baldwin Nassau CC, NY	Orlando, FL 500 attendees	Bill Jordan
1984	Amber Steinmetz Santa Rosa JC, CA	New York, NY 439 attendees	Allen Angel
1985	Amber Steinmetz Santa Rosa JC, CA	Memphis, TN 448 attendees	Cheryl Cleaves Margie Hobbs

Year	*President*	*Conference City*	*Conference Chair*
1986	Stephen Rodi Austin CC, TX	San Francisco, CA 602 attendees	Hal Anderson
1987	Stephen B. Rodi Austin CC, TX	Kansas City, MO 575 attendees	Forrest Lowe
1988	Karl Smith Santa Rosa JC, CA	Calgary, Canada 654 attendees	Shao Mah Steven Terry
1989	Karl Smith Santa Rosa JC, CA	Baltimore, MD 726 attendees	Barbara Gale
1990	Dale Ewen Parkland College, IL	Dallas, TX 1110 attendees	Tommy Thompson Eddie Robinson
1991	Dale Ewen Parkland College, IL	Seattle, WA 1220 attendees	Vicky Ringen
1992	Karen Sharp Mott CC, MI	Indianapolis, IN 1085 attendees	Lucreda Hutton
1993	Karen Sharp Mott CC, MI	Boston, MA 1323 attendees	Jack Keating Helene Savicki
1994	Marilyn Mays North Lake CC, TX	Tulsa, OK	Audrey Rose

IV. AMATYC AFFILIATE ORGANIZATIONS

State/Region	*Affiliate Name*	*Year Founded*
Alaska	AKMATYC	1989
Alabama	ALAMATYC	1988
Arizona	ArizMATYC	1983
Arkansas	ARKMATYC	1989
California - Northern	CMC3	1972
California - Southern	CMC3-South	1985
Colorado	ColoMATYC	1991
Connecticut	MATYCONN	1972
Delaware	DelMATYC	1994
Florida	FTYCMA	1965
Georgia	GMATYC	1988
Illinois	IMACC	1972

State/Region	*Affiliate Name*	*Year Founded*
Indiana	IRMC	1977
Iowa	IMATYC	1988
Kansas	KAMATYC	1988
Kentucky	KYMATYC	1985
Maryland	MMATYC	1974
Michigan	MichMATYC	1981
Minnesota	MinnMATYC	1989
Missouri	MOMATYC	1978
New England	NEMATYC	1972
Nevada	NEVMATYC	1988
New Jersey	MATYCNJ	1989
New Mexico	NMMATYC	1990
New York	NYSMATYC	1967
North Carolina	NCMATYC	1988
North Dakota	NDMATYC	1989
Ohio	OhioMATYC	1975
Oklahoma	OJCMA	1971
Oregon	ORMATYC	1987
Pennsylvania	PSMATYC	1970
South Carolina	SOCAMATYC	1983
Tennessee	TMATYC	1981
Texas	TexMATYC	1978
Utah	UTMATYC	1991
Virginia	VMATYC	1987
Washington	WAMATYC	1985
Wisconsin	WisMATYC	1993
Wyoming	WYMATYC	1980

V. APPENDIX: PROFESSIONALIZATION AND THE TWO-YEAR COLLEGE MATHEMATICS FACULTY

Richelle M. Blair, AMATYC Historian

INTRODUCTION

The AMATYC History presented on the previous pages describes the journey and incredible commitment of individuals across the country over the last two decades. It's a journey about real people who wanted to do important things to help students. It's a journey about what it means to be a two-year college mathematics faculty member today. The following pages present a review of research on professions, the professionalization process, and a reflection on what the status of the professionalization of teaching mathematics in two-year colleges is today.

The two-year college sector has been a major provider of mathematics instruction in the United States, providing instruction for "nearly 40 percent of all undergraduate students and accounts for nearly 40 percent of all undergraduate mathematics course enrollments" [1]. In 1974, a group of two-year college mathematics faculty took the first step in the professionalization of their occupation by forming their own professional organization, the American Mathematical Association of Two-Year Colleges (AMATYC). What were the forces that led to this dramatic step? How do those actions compare with the professionalization process experienced in other disciplines? Is the process complete? Are two-year college mathematics faculty considered to be professionals?

PROFESSIONS AND THE PROFESSIONALIZATION PROCESS

The extent to which the occupation of teaching mathematics in two-year colleges is a profession can be assessed within the theoretical framework of the study of professions, the process of professionalization, the culture of professional organizations, and professionalism in the two-year college. "Professionals profess-- they profess to know better than anyone else, the nature of certain matters and to know better than their clients what ails them or their affairs." [2] For example, medicine professes health, law professes justice, and education professes truth.

The study of professions occurs within dynamic sociological contexts. At some point, individual occupations transform their ideals into a philosophy which becomes the central component of the *paradigm* of professions containing the following components:

1. an ideology of faith;
2. a code of ethics;

3. establishment of a set of skills;
4. establishment of standards of excellence;
5. institutional settings for practice and training;
6. guidelines for conduct and control;
7. professional culture sustained by a professional organization. [3]

The philosophy and rules of a profession are the end result of a developmental process involving the following *stages*:

1. it becomes full-time in character;
2. a group lays claim on certain areas and functions;
3. there are places of training;
4. a professional organization is established, first locally, then nationally;
5. rules of professional behavior and general codes of ethics are developed;
6. a prolonged political agitation is evident to obtain the support of the public.[4]

An occupation is considered to be a profession after moving through the stages above and establishing its "faith professed."

Professionalization emerged in the mid 1960s as the study of the process of becoming a profession, the identification of dynamic characteristics, and a process whereby an occupation becomes a profession. [5] The professionalization *process* consists of fourteen characteristics:

1. Clarifying its defining function;
2. Mastery of theoretical knowledge;
3. Capacity to solve problems;
4. Use of practical knowledge;
5. Self-enhancement;
6. Formal training;
7. Credentialing;
8. Creation of a subculture;
9. Legal reinforcement to protect members;
10. Public acceptance;
11. Ethical practice or code of ethics;
12. Penalties for incompetency;
13. Relations to other vocations;
14. Relations to users of the service. [6]

The goal of professionalization is the creation of a full profession which is stable in the face of social and scientific change. Professionalization occurs within the context of interacting factors and forces. The nature of the occupation, the institution(s) in which the occupation is performed, and the persons performing, affect the process and outcome of professionalization.

Professionalization is an individual activity. Prerequisites for personal and professional maturity are the concepts of individual and institutional identity. Identity is a dynamic concept, which includes "an awareness of self, personality, and of individuality." [7] As individuals form identity for themselves, the institution's identity evolves. Identity involves a drawing together of person, institution, and a profession.

In order to become considered "a profession," a culture must be developed and the process of professionalization completed. The extent to which teaching mathematics in the two-year college has evolved into a profession can be assessed by reviewing the events of the last 40 years in light of the above research on professions and the professionalization process.

PROFESSIONAL CULTURE IN MATHEMATICS EDUCATION BEFORE 1974

From the launch of Sputnik in 1957, until the birth of AMATYC in 1974, diverse institutions, students, and curricula, along with tremendous growth, presented new challenges for two-year colleges. Research into the nature of the two-year college, and its faculty and curriculum show a lack of a clear mission or institutional role. [8] A conflict occurred as institutions tried to provide higher education for all students and meet traditional standards and expectations set by four-year institutions and the public.

Rapid growth of the two-year college in the 1960s and 1970s brought changes in the characteristics of mathematics faculty and mathematics courses. Interviews with two-year college mathematics faculty [9] reflect feelings of insecurity, lack of self-awareness, and isolation. Tremendous instructional responsibility, inadequate professional preservice or inservice training, and a lack of attention from professional mathematics organizations intensified feelings of isolation and frustration for two-year college mathematics faculty. A professional identity crisis developed for faculty that paralleled the lack of clarity of role of the institution within America's higher education system.

During this time, the two-year college mathematics educators received minimal support from institutions of higher education, the mathematics community, or existing organizations or agencies that they accepted as legitimate. [12] There were few professional development opportunities offered specifically for two-year college faculty at regional and national mathematics conference. Two-year college mathematics educators wanted professional development related to the mission of the two-year college and assistance in designing effective curricula for the diverse students and community needs, but had difficulty finding either. Two-year college mathematics faculty felt that proposals submitted to the National Science Foundation were not viewed as competitive.

Two-year college mathematics faculty across the nation felt different from high school mathematics teachers or four-year college mathematics professors. They wanted to attend professional education workshops and seminars, share successes and failures, discuss teaching methodology, course content, textbooks, and issues of remedial mathematics education. They wanted to meet with others who understood the issues, students, and environment of the two-year college.

The need to establish a professional identity and communicate with other faculty in similar situations was a catalyst for two-year college mathematics faculty to seek a national forum of their own. This desire became a driving force for individuals who did not want to wait for things to happen to them. They wanted to create their own future. They did so with the formation of AMATYC in 1974.

ENORMOUS COMMITMENT OF INDIVIDUALS

The tireless and selfless actions of individuals in several states working to bring two-year college mathematics professionals together can not be overstated. [11] Interviews with two-year college mathematics educators involved in the formation of AMATYC revealed two persons who secured contracts for hotels for the 1974 and 1975 conferences using their homes as collateral. Another individual took personal financial responsibility for the Friday reception. Another put a rider on his personal insurance policy to protect college equipment used at the 1975 conference. Others paid their own travel expenses to visit other states to help organize new organizations for two-year college mathematics faculty. There are countless examples of institutional in-kind contributions arranged by AMATYC members to support collaborative and professional development activities. The profession of teaching mathematics in the two-year college is where it is today partly because of commitment of these individuals.

The dynamic professionalization process outlined in the literature of professions was in motion for two-year college mathematics educators in the 1970s. By 1975, they could lay claim to the first eight of the fourteen characteristics of the professionalization process outlined earlier. The function and role of the two-year college had crystallized and with it came a clarifying of function for mathematics faculty. A knowledge base in mathematics curriculum design, particularly in remedial mathematics courses and teaching methodology, was established and the solutions to related problems formed at the local and national level. Formal training and graduate programs for two-year college faculty became more available through professional organizations and universities. The mathematics faculty at two-year colleges had created their own subculture within AMATYC and state affiliates, thus becoming autonomous and self-enhancing. The professionalization process had begun, but was not complete.

A "FAITH PROFESSED"

By 1975, the "faith professed" or values to be achieved through the activities of the profession were evident in the purposes of AMATYC listed in the original Constitution:

1. to encourage the development of effective mathematics programs;
2. to afford a national forum for the interchange of ideas;
3. to further develop and improve the mathematics education and mathematics related experiences of students in two-year colleges;
4. to coordinate activities of affiliated organizations at the national level;
5. to promote the professional welfare and development of its members. [12]

The faith professed for AMATYC and the profession of teaching mathematics at the two-year college could be summarized to be: The enrichment of mathematics education in two-year colleges through active communication and dialogue.

In the literature of the study of professions, the philosophy, rules, and professional culture are the result of a developmental process involving the stages outlined earlier. By 1975, the occupation of teaching mathematics in a two-year college was full-time in character, it had laid claim on certain areas and functions, there were formal places of training, and professional organizations existed at the state and national levels. Rules of professional behavior and prolonged political agitation were not well developed, but the occupation of teaching mathematics in a two-year college had achieved four of the six stages in the development of a profession listed previously. Teaching mathematics in the two-year college had moved from an occupation considered to be an arm of high school or university mathematics teaching, to a separate profession in its own right.

AMATYC TODAY

AMATYC today is a vibrant, dynamic, friendly, professional organization which is the direct result of extraordinary efforts on the part of individuals with incredible vision in the 1970s, sustained by continued dedication, exceptional leadership, and tireless commitment of others during the 1980s and 1990s.

The commitment and enthusiasm of individuals observed in 1974 and 1975 is still evident today. The organization which began with less than 300 members, now has individual memberships close to 3,000 and over 100 institutional memberships. AMATYC has grown from a group of individuals seeking personal and professional identity to a mature professional organization offering a variety of services to its members.

The AMATYC of the 1990s is actively working to accomplish the last two stages of development of a profession: 1) development of rules of professional behavior and 2) prolonged political agitation. The recent Strategic Planning efforts, the AMATYC *Standards for Introductory College Mathematics*, and AMATYC guidelines and position statements, are defining the rules of professional behavior for the association. Two-year college mathematics faculty are now active in the political arena of regional and national policy in mathematics and science education. Two-year college mathematics faculty have created a place for themselves in the mathematics education community.

CONTINUING THE PROFESSIONALIZATION PROCESS

AMATYC provides outstanding services to its membership through leadership activities, the opportunity to interact with professionals across the country, workshops, and institutes. It provides opportunities for the development of a personal and professional identity, which requires an understanding of the drawing together of the person, the institution, and the profession.

The professionalization process for two-year college mathematics faculty is ongoing. Challenges still exist--some old, some new. Two-year college educators must make the time within a busy teaching schedule to become more involved in policy-making at the local, state, and national levels. Two-year college faculty must clarify their own sense of purpose and place in higher education and communicate that role and its characteristics to other professionals. Bridges must continue to be built between the K-12 and higher education sectors. Parents, community leaders, business/industry representatives, and legislators must be thoroughly informed of the role of the two-year college and the expertise of the professionals employed there. Lastly, mathematics instruction at all levels must be changed to engage students actively in the process of learning mathematics for their role in our technological, international society at all levels of the educational system.

Two-year college mathematics faculty across the nation began a journey twenty years ago, but the trip is not over. New and experienced faculty must work together to decide upon the desired destination and how to get there. "The goal of professional education should be the development of the aware, self-directed, professional person. . . .The basis of true professionalization of learning is the individual in charge of his own activities." [13] That development need not occur in isolation. Due to the tireless efforts of professionals across the country, two-year college mathematics faculty have the resources of AMATYC to draw upon. The next twenty years are sure to be just as exciting for AMATYC and two-year college mathematics faculty as the professionalization process continues.

ENDNOTES

[1] National Research Council, Moving Beyond Myths, Revitalizing Undergraduate Mathematics (Washington, D.C.: National Academy Press, 1991), 4.

[2] Everett C. Hughes, "Professions," Daedalus 92 (1963): 656.

[3] This paradigm is found in Argyris and Schon (1974), p. 146; Houle (1981), p. 14; and Vollmer and Mills (1966), p. xi.

[4] These stages were found in Burrage and Torstendahl (1990), p. 181; Hughes (1963), p. 29; Vollmer and Mills (1966), p. 20; and Wilensky (1964), p. 142.

[5] Hannes Siegrist, "Professionalization as a Process: Patterns, Progression and Discontinuity." in Michael Burrage and Rolf Torstendahl, eds., Professions in Theory and History (London: Sage Publications, 1990), 177.

[6] Cyril Houle, Continuing Learning in the Professions (San Francisco: Jossey-Bass Publishers, 1981), 35.

[7] Arthur M. Cohen, and Florence B. Brawer, Confronting Identity: The Community College Instructor (New Jersey: Prentice-Hall, Inc., 1972), 1.

[8] Richelle M. Blair, "A Descriptive Study of the Professionalization of Two-Year College Mathematics Practice Between 1957 and 1975" (Ph.D. diss., Kent State University, 1992), Chapter III, 45-82.

[9] Ibid., Chapter IV, 83-121.

[10] Ibid., Chapter V, 122-160.

[11] Ibid., Chapter VI, 161-192.

[12] Taken from the December 2, 1976 Constitution of AMATYC.

[13] Cohen and Brawer, Identity, 145.

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VI. GLOSSARY OF ABBREVIATIONS

AACC	American Association of Community Colleges
AMATYC	American Mathematical Association of Two-Year Colleges
AMS	American Mathematical Society
CBAMN	Coordinating Board of AMATYC, MAA, and NCTM
CBMS	Conference Board of the Mathematical Sciences
CSSP	Council of Scientific Society Presidents
DMC	Developmental Mathematics Committee
MAA	Mathematical Association of America
MATYC	Mathematics Association of Two-Year Colleges
MS 2000	Mathematical Sciences in the Year 2000
MSEB	Mathematical Sciences Education Board
NADE	National Association of Developmental Education
NCTM	National Council of Teachers of Mathematics
NSF	National Science Foundation