AMATYC
50 YEARS OF IDEAS

American Mathematical Association
of Two-Year Colleges

October 18, 2024

Dear AMATYC Delegate.

The 2024 Delegate Assembly will be held on **Saturday December 14th, 2024, 3:00 - 5:00 PM EST, 2:00pm to 4:00pm CST, 1:00pm to 3:00pm MST, 12:00 pm to 2:00pm PST** virtually using the Zoom platform.

Attached are the 2024 Delegate Assembly Agenda and other materials for your careful review prior to our meeting. Please plan to arrive early to the meeting, check in with your regional vice president, and **be in Zoom 30 minutes before the scheduled start time**. You will access a Regional Zoom Link to check in, and then access a different Zoom link for the Delegate Assembly. The Delegate Assembly will start on the hour, so please check into your Zoom room at least ten minutes prior to the start of the Delegate Assembly. Be sure to have access to the attached packet of information during the Delegate Assembly.

This year the main items of business are reviewing reports from the President, the Treasurer, the Foundation, an update to the by-laws, and an update to the AMATYC IMPACT document.

Substitutes: According to the Bylaws, alternate delegates may be named by the regional vice president as the delegate replacing an affiliate or state/province delegate at the Delegate Assembly by notifying the AMATYC Secretary in writing and providing appropriate credentials in writing no later than 6 pm of the day prior to the start of the Delegate Assembly.

Motions: If you wish to submit a motion for consideration during the Delegate Assembly business meeting, please submit at this Smartsheet.

Items for Discussion: As in previous years, the Delegate Assembly agenda includes open discussion at the end of the meeting. To the extent that time permits, this is an opportunity for delegates to express comments about issues related to AMATYC's mission.

Thank you very much for your service to AMATYC in this important role. I am looking forward to seeing you on Zoom.

Respectfully,

George Hurlburt
President

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2024 DELEGATE ASSEMBLY

AGENDA
THE AMERICAN MATHEMATICAL ASSOCIATION
OF TWO-YEAR COLLEGES
Virtual
Saturday, December 14, 2024
3:00 pm EST

I. Call to Order – 3:00 p.m. EST

II. Welcome and Introductions
Parliamentarian and Timekeeper
2024-2025 Executive Board Members

III. Announcement of Quorum — Jonathan Weisbrod

IV. Motion to Approve the Rules of Conduct

V. Motion to Approve the Agenda

VI. 2023 Delegate Assembly Minutes (Informational item only)

VII. Motion to Approve the 2024 Minutes Review Committee

VIII. Reports

A. President — George Hurlburt
B. Treasurer — Kyle Kundomal
C. AMATYC Foundation — Laura Watkins
D. Strategic Planning — Eddie Tchertchian
E. Conference Site Selection — Eddie Tchertchian

IX. Old Business

A. None

X. New Business

A. Motion: By-law change, virtual Delegate Assembly
B. Motion: Adding a chapter on Equity to Impact

XI. Items for Discussion – Open Microphone
Delegates are invited to bring forward for discussion or comments issues that are related to AMATYC's mission and goals.

XII. Announcements

A. Introduction of AMATYC Executive Director
B. New website / membership database
C. Position Statement Updated: Distance Education in College Mathematics in the First Two Years
D. Potential Name Change

XIII. Adjournment

BYLAWS OF THE

AMERICAN MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES (AMATYC)

Ratified July 2010

Last Updated November 2021

Article I Name

The name of the association shall be the American Mathematical Association of Two-Year Colleges, Incorporated (AMATYC).

Article II Objectives

Section 1 The American Mathematical Association of Two-Year Colleges, Incorporated is a non-profit, educational association.

Section 2 The objectives of AMATYC are the following:

A. Encourage the development of effective mathematics programs

B. Provide a national forum for the exchange of ideas

C. Develop and/or improve the mathematics education and mathematics related experiences of students in two-year colleges

D. Coordinate activities of affiliated organizations on the national level

E. Promote the professional welfare and development of its members.

Article III Membership

Section 1 Membership Categories

Members must complete the proper forms and pay the established dues. Membership in AMATYC shall be restricted to the following:

A. Regular membership: individual, full-voting members, with one or several subcategories determined by the Executive Board, with dues and levels of benefits determined by the Executive Board.

B. Associate membership: individual, non-voting members, with one or several subcategories determined by the Executive Board, with dues and levels of benefits determined by the Executive Board. Associate members must not also be a full- or part-time teacher, and must be endorsed by a regular member.

C. Institutional membership – A class of non-individual, non-voting memberships

associated with any college, university, learning center, publisher, manufacturer, or similar entity that supports the purposes of the association. Dues and levels of benefits determined by the Executive Board.

Section 2 Membership Privileges

A. A regular member has the right to vote, hold elected office, be appointed to leadership positions, nominate candidates for office, serve on committees as a voting member, and be appointed as a delegate in the Delegate Assembly.

B. Associate members have the right to nominate candidates for office and serve on committees, but do not have the right to vote, hold elected office, be appointed to leadership positions, or be appointed as a delegate in the Delegate Assembly.

C. Individuals who are eligible for an associate membership may choose to complete the proper forms and pay the established dues to become a regular member to obtain all the privileges of a regular member.

D. The representative of an institutional member has the right to nominate candidates for office, but does not have the right to vote, hold elected office, be appointed to leadership positions, serve on committees as a voting member, or be appointed as a delegate in the Delegate Assembly, unless that individual is also a regular member of the association.

Section 3 Membership Year

The membership year shall consist of twelve months. For new members, the membership beginning date shall be the day the dues are paid.

Section 4 Dues

A. Annual membership dues are paid by all members, except lifetime members.

B. Annual regular AMATYC membership dues are set every two years by applying the Consumer Price Index - Urban Consumers CPI-U for the last two consecutive years that begin with an even-numbered year to the current dues and rounding up to the nearest whole dollar. This adjusted rate is set at the Spring Executive Board Meeting in odd- numbered years, with the change taking place on July 1 of the following even-numbered year.

C. In the event that there is a need for a change other than the calculated rate, as determined in Article III.4.B., the new rate must be brought to the Delegate Assembly prior to the change taking effect for approval.

Article IV Affiliated Organizations

Section 1 Any organization interested in affiliating with AMATYC must recognize AMATYC as a prime national organization concerned with the first two years of college mathematics instruction. This is done by voting for affiliation with AMATYC. Applications for affiliation must be approved by the AMATYC Executive Board.

Section 2 An affiliated organization has the following responsibilities:

A. The membership lists of the organization shall be forwarded to the appropriate AMATYC Regional Vice-President by June 30 in even-numbered years.

B. Membership in AMATYC should be encouraged for all the affiliate's members.

C. Each affiliate organization will appoint AMATYC members to serve as affiliate delegates to the Delegate Assembly as discussed in Article VII.

Article V Elected Officers

Section 1 The elected officers of AMATYC shall be called the Executive Board and shall be the national officers: a President, President-Elect, Immediate Past President, Treasurer, and Secretary, and the regional officers, a Northeast Regional Vice-President, Mid-Atlantic Regional Vice-President, Southeast Regional Vice-President, Midwest Regional Vice- President, Central Regional Vice-President, Southwest Regional Vice-President, Northwest Regional Vice-President, and West Regional Vice-President.

Section 2 Only regular members are eligible to hold elected office.

Section 3 Terms of Office

A. The term of office for all elected officers, except for the Treasurer, is two years; beginning on January 1 in even-numbered years and ending on December 31 in the next odd-numbered year. The term limit for all officers, except for the President-Elect, President, Immediate Past President, and Treasurer, is three full successive elected terms in the same office.

B. The term limit for the President-Elect, President, and Immediate Past President is one full elected term in the same office. The President-Elect automatically succeeds the President at the end of the President's term or when the President leaves office permanently. The President automatically succeeds the Immediate Past President at the end of the President’s term. The Immediate Past President may not be elected as President- Elect.

C. The term of the office for the Treasurer is four years, beginning on January 1 in even-numbered years and ending on December 31 in the second subsequent odd-numbered year. The term limit for the Treasurer is two full successive elected terms in that office.

Section 4 Duties of elected officers

All elected officers shall promote and coordinate the activities of the association, perform all duties according to policy, and perform all other duties that regularly pertain to the office. Specific duties of each office are as follows:

A. President:

1. Prepare the agenda for all association, Delegate Assembly, and Executive Board meetings.

2. Preside at all general meetings of the association, the Delegate Assembly, and the Executive Board.

3. Act as ex-officio member of all committees except the Nominating Committee.

4. Nominate, for approval by the Executive Board, the chairperson of all committees, except the Nominating Committee, Strategic Planning Committee, and Organizational Assessment Committee.

5. Appoint the chairs of ad hoc committees and task forces.

6. Appoint an acting chairperson of a committee when a vacancy occurs.

7. Appoint Special Appointees to perform duties as designated with approval of the Executive Board.

8. Meet with the Executive Directors and/or Presidents of other organizations who share similar concerns and interests to discuss items of mutual benefit and to establish a working relationship with them.

B. President-Elect

1. Act as president in the absence of the President.

2. Serve as the chairperson of the Strategic Planning Committee and the Organizational Assessment Committee.

3. Maintain a policy and procedures manual in conjunction with the Secretary and the AMATYC Office.

C. Immediate Past President

1. Chair the Nominating Committee.

2. Administer the election of officers.

D. Secretary

1. Keep an accurate, permanent record of the proceedings of meetings of the association, Delegate Assembly, and Executive Board.

2. Maintain updated lists of delegates and affiliate presidents.

3. Furnish agendas and minutes of all meetings to the appropriate people and ensure that the official minutes of the organization are securely archived.

4. Assist the President-Elect in maintaining a policy and procedures manual.

E. Treasurer

1. Ensure that all financial records, funds, receipts, and disbursements of the association are accurately maintained.

2. Present a written financial report at each regular business meeting and each Executive Board meeting.

3. Certify the size of the membership by region and category.

4. Prepare an annual organizational budget and present it to the Executive Board for approval at the fall meeting.

5. Obtain approval of the Executive Board or designee for expenditures that exceed budgeted amounts.

6. The outgoing Treasurer will complete the financial responsibilities pertaining to the conference at the end of the term of office.

F. Regional Vice-Presidents

1. Serve as the liaison between AMATYC and its affiliated organizations.

2. Appoint state/province delegates per Article VII.

3. Serve as a member of the membership committee. One Regional Vice-President shall serve as chair.

4. Recruit and retain members within their regions.

Section 5 Elections

The Executive Board shall conduct elections for officers in each odd-numbered year. Each regular member as of June 30 of that year shall be eligible to vote. Elections shall be by secret ballot. Announcement of the dates, format, and candidates of the election shall be made in writing or electronically to the membership at least 30 days prior to the beginning of the vote. Candidates who receive a plurality of the votes for a particular office shall be elected. If the number of votes for two candidates for the same office are tied, then a random

process shall be used to determine the winner.

Section 6 Vacancies

In the event that an officer other than the President, President-Elect, or Treasurer leaves office before the expiration of the regular term, the president, with the approval of the Executive Board, shall appoint a replacement for the remainder of the term. A vacancy in the office of President-Elect shall be filled by a special election following procedures established by the Executive Board. In the event that the Treasurer leaves office before the expiration of the regular term, the President, with the approval of the Executive Board, shall appoint a replacement until the next regularly scheduled election, regardless of whether this election falls on the four-year cycle for election of a Treasurer. The newly elected Treasurer would serve a full four-year term and this four-year term will form the basis for future Treasurer terms and elections.

Article VI Executive Board

Section 1 The elected officers shall serve as the Executive Board and are responsible for conducting the affairs of the association.

Section 2 Duties of the Executive Board

A. Approve the chairperson of each committee, except the Nominating Committee, Strategic Planning Committee, Organizational Assessment Committee, ad hoc committees, and task forces.

B. Recommend dues changes to the Delegate Assembly per Article III.4.

C. Recommend bylaw changes to the Delegate Assembly.

D. Select cities and dates for the annual conference.

E. Approve the annual budget.

F. Appoint special committees as needed to carry out the purposes of the association.

G. Make special appointments for persons to perform duties as designated.

H. Authorize a designated officer or officers, agent or agents of AMATYC, in addition to the officers so authorized by these bylaws, to implement and oversee, on behalf of AMATYC, a project, program or activity conducted jointly by AMATYC and one or more outside entities, to be called a partnership. This partnership is approved by the AMATYC Executive Board. Such authority must be in writing and be confined to specific instances as outlined in a partnership agreement which is approved by the Executive Board and signed by AMATYC and the partnership entity.

I. Perform all other duties according to policy.

J. Perform all other duties that are necessary for the functioning of the association.

Section 3 A majority of the members of the Executive Board shall constitute a quorum to enact the business of AMATYC. This majority must include at least two of the national officers.

Section 4 Regular meetings of the Executive Board may be called by the President or seven members of the Executive Board two of which must be national officers. Written or electronic notification of all regular meetings must be given to all Executive Board members at least 30 days prior to the start of the meeting. Announcements of regular Executive Board meetings must be published on the AMATYC website at least two weeks prior to the beginning of the meeting. At least two regular meetings must be held annually, one during the spring and a second during the fall.

Section 5 Action between Regular Meetings

A. In circumstances as determined by the President or seven members of the Executive Board, at least two of which are national officers, business may be conducted between regular meetings of the Executive Board by means of mail, fax, email or conference calls. The same quorum that applies to regular meetings is required at these meetings to conduct the business of AMATYC.

B. All actions resulting from a mail, fax, email or conference call vote shall be documented, distributed, and archived by means of a report from the Secretary in the Executive Board minutes of the regular meeting that takes place immediately following the action.

C. Written or electronic notification of all proposed actions presented between regular meetings must be given to all Executive Board members at least 72 hours before discussion or voting occurs.

Article VII Delegate Assembly

Section 1 The association shall have an annual business meeting (Delegate Assembly) in conjunction with its annual conference. Notice of the Delegate Assembly meeting shall be publicized in writing or electronically at least one month in advance.

Section 2 The Delegate Assembly shall be composed of delegates who are regular members of AMATYC as follows:

A. State/Province Delegates

1. There shall be two state/province delegates from each state and province, appointed for a term of two years by the appropriate regional vice president. States and provinces with more than 50 regular individual members of AMATYC, are permitted one additional state/province delegate for each 50 regular individual members of AMATYC or fraction thereof above 50, determined by each member's preferred mailing address. The count of regular individual members of AMATYC will be done on June 30 of even-numbered years.

2. Terms of state/province delegates shall commence on July 1, or date of appointment, whichever is later, and terminate on June 30, in odd-numbered years.

3. An alternate delegate from the same state/province may be appointed to serve as proxy in place of a state/province delegate who is unable to attend the Delegate Assembly.

B. Affiliate Delegates

1. Each affiliate president, who is also a regular AMATYC member, in office at the time of the Delegate Assembly is a delegate to the Delegate Assembly to represent their affiliate organization. A proxy cannot replace an affiliate president delegate.

2. Each affiliate organization may appoint one additional affiliate delegate. Term of appointment will be determined by the affiliate.

3. An alternate delegate from the same affiliate may be appointed to serve as proxy in place of an affiliate delegate who is unable to attend the Delegate Assembly.

C. Each Executive Board officer is a delegate.

D. Each AMATYC past president is a delegate.

E. Each AMATYC academic committee chair is a delegate.

F. Additional delegates to represent countries not specified in Section XI may be appointed by the Executive Board.

G. No delegate at the Delegate Assembly is entitled to more than one vote.

H. Regional Vice-Presidents shall submit a list of affiliate and state/province delegates to the AMATYC Secretary no later than thirty (30) days prior to the start of the Delegate Assembly.

I. Alternate Delegates may be named by the Regional Vice-President as the delegate replacing an affiliate or state/province delegate at the Delegate Assembly, by notifying the AMATYC Secretary in writing and providing appropriate credentials in writing no later than 6 pm of the day prior to the start of the Delegate Assembly.

Section 3 The Delegate Assembly's responsibilities are to:

A. Vote on all dues changes as submitted by the Executive Board, in accordance with Article III.4.C.

B. Vote on bylaw changes submitted to the Delegate Assembly.

C. Present written recommendations to the Executive Board to be considered at the following Executive Board meeting.

D. Approve position statements as presented by the Executive Board per Article IX.

Section 4 Each state/province delegate shall perform the following duties:

A. Represent that delegate's state/province at the Delegate Assembly meeting at the annual conference.

B. Keep the Regional Vice-President abreast of the activities and concerns of members from the delegate's state.

C. Assist the Regional Vice-President in promoting membership and activities for AMATYC in the state/province.

D. Perform all duties according to policy.

Section 5 Each affiliate delegate shall perform the following duties:

A. Represent the affiliate organization at the Delegate Assembly meeting at the annual conference.

B. Keep the Regional Vice-President abreast of the activities and concerns of members from the delegate's affiliate.

C. Assist the Regional Vice-President in promoting membership and activities for AMATYC at the affiliate meetings.

D. Perform all duties according to policy.

Section 6 The number of delegates necessary for a quorum in the Delegate Assembly shall be twenty-five (25) percent of the number of delegates identified in Section 2 of this Article.

Article VIII Committees

Section 1 Types of committees

A. Committees fall into three general categories: Administrative Committees, Academic Committees, and Ad Hoc Committees and Task Forces. Administrative and academic committees are standing committees.

B. All members of association committees must be AMATYC members. Non-AMATYC members may participate in academic committee work in a nonvoting capacity.

Section 2 Administrative Committees

A. Purpose

Administrative committees support the general functioning of the association.

B. Established administrative committees

The following administrative committees are established by these bylaws.

1. Nominating Committee
2. Membership Committee
3. Strategic Planning Committee
4. Finance Committee
5. Foundation Board
6. Organizational Assessment Committee
7. Professional Development Committee

C. Objectives of the established administrative committees

The general objectives of each of the committees in part B are the following:

1. The Nominating Committee shall establish election procedures and, consistent with policy and Executive Board direction, recommend a slate of nominees for Executive Board approval.
2. The Membership Committee shall develop and implement strategies to solicit new members and retain existing members.
3. The Strategic Planning Committee shall develop and publish the AMATYC Strategic Plan.
4. The Finance Committee oversees the budget development and serves in an advisory capacity to the Treasurer and Executive Board.
5. The Foundation Board shall raise and disburse funds to support the mission of AMATYC.
6. The Organizational Assessment Committee shall coordinate the planning and implementation of assessment of AMATYC programs and activities.

7. The Professional Development Committee shall monitor, coordinate, and evaluate AMATYC's professional development efforts in order to provide the membership with high quality opportunities and a wide breadth of activities.

D. Other Administrative Committees

Other administrative committees may be created and discharged as needed by the Executive Board to support the general functioning of the association.

Section 3 Academic Committees

A. Purpose

Academic committees support the general professional purposes and mission of the association, as stated in Article II and in the association's mission statement.

B. Establishment of academic committees

Academic committees are established and discharged by the Executive Board. Their designations and specific purposes will change as the needs of the association change. Each academic committee shall have a chair, nominated by the President and approved by the Executive Board.

C. Duties of an Academic Committee Chairperson

The chairperson of each academic committee shall perform the following duties:

1. Chair the meetings of the academic committee.

2. Coordinate the activities of the academic committee.

3. Prepare the annual budget of the academic committee and submit it to the Treasurer according to the established schedule.

4. Prepare reports of the academic committee's activities and submit them to the President according to the established schedule.

5. Perform all duties according to policy.

6. Perform all other duties necessary for the academic committee to function and accomplish its goals.

Section 4 Ad Hoc Committees and Task Forces

A. Establishment

Ad hoc committees and task forces may be approved and formed by the Executive Board and/or Delegate Assembly when deemed necessary by those entities.

B. Purpose and duration

The purpose of ad hoc committees and task forces shall be determined when they are established. A termination date shall be designated at the time of establishment.

Article IX Position Statements

Section 1 Purpose of Position Statements

Position statements represent a declaration by the organization on issues of interest to two- year college mathematics educators, and may be initiated by an academic committee, an affiliate organization, or an individual AMATYC member.

Section 2 Process for Development of Position Statements

The process for development of a position statement must conform to the following guidelines.

A. A proposal for a position statement must be referred to, or begin with, an appropriate academic committee or task force created by the Executive Board. That committee or task force chooses to pursue or not to pursue the statement. The committee or task force is responsible for development of a proposed position statement.

B. A schedule for the process of review of proposed position statements by committees, Executive Board, and Delegate Assembly, shall be established by the Executive Board. This schedule must provide timely notice to all AMATYC members of the proposed statement.

C. The chairperson of an academic committee or task force shall submit the draft position statement to the Executive Board for its review and approval.

D. If endorsed by the Executive Board the proposed position statement shall be submitted to the Delegate Assembly for review and approval.

E. In the absence of Executive Board endorsement, the Delegate Assembly may vote to review a proposed position statement by a vote of 2/3 of the delegates at the Delegate Assembly, provided that timely notice was provided to all AMATYC members.

F. If approved by the Delegate Assembly the proposal becomes an AMATYC position statement.

Article X Removal From Office

Section 1 Executive Board members may be removed from office by a 3/4 vote of the Executive Board, with or without cause, if the action is deemed to be in the

best interest of the association.

Section 2 Persons appointed to positions within the association may be removed from those positions by a 2/3 vote of the Executive Board.

Section 3 The affirmative vote of the Executive Board for removal of a person from an appointed or elected position is an authorization for the President to take the steps necessary for that removal.

Article XI AMATYC Regions

Section 1 The AMATYC organizational membership shall be divided into the regions as follows:

Region 1 – Northeast:
Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont; New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, Quebec

Region 2 – Mid-Atlantic:
Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia

Region 3 – Southeast:
Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee; Puerto Rico, Virgin Islands and other Caribbean Islands

Region 4 – Midwest:
Illinois, Indiana, Kentucky, Michigan, Ohio, Wisconsin

Region 5 – Central:

Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Manitoba, Saskatchewan

Region 6 – Southwest:
Arizona, Arkansas, New Mexico, Oklahoma, Texas; Mexico

Region 7 – Northwest:
Alaska, Idaho, Montana, Oregon, Washington, Wyoming; Alberta, British Columbia, Northwest Territories, Nunavut, Yukon Territory, other International Locations

Region 8 – West:
California, Hawaii, Nevada, Utah; Pacific Islands

Section 2 A member’s region is determined by the location of the individual's primary professional contributions related to AMATYC's objectives (Article II).

Article XII Parliamentary Authority

The rules contained in the current edition of Robert's Rules of Order, Newly Revised shall govern AMATYC in all cases in which they are applicable and in which they are not inconsistent with these bylaws.

Article XIII Amendment

These bylaws may be amended by the delegates at the Annual Delegate Assembly by a two- thirds (2/3) vote of those delegates voting, provided that written or electronic notification of the proposed text changes and the clear purpose of the amendment has been sent to all delegates at least thirty (30) days prior to the Delegate Assembly and a hearing on the proposed changes is convened no sooner than ten (10) days after this notification and at least a day before the beginning of the Delegate Assembly. Proposed amendments to these bylaws may be presented to the Executive Board by any member, and shall be processed by the Executive Board, for approval by the Delegate Assembly.

Article XIV Dissolution

In the event of dissolution, the assets and property of the corporation remaining after payment of expenses and the satisfaction of all liabilities shall be distributed as determined by the Executive Board or as may be determined by a court of competent jurisdiction upon application of the Executive Board, for the non-profit purposes of the corporation and/or to such charitable, literary, and educational organizations as shall qualify under Section 501c3 of the Internal Revenue Code of 1954, as amended. Any of such assets not so distributed shall be disposed of for such purposes as directed by a Justice of the Supreme Court of the State of New York or such other court having jurisdiction over the corporation.

- **Approved at the Delegate Assembly, November 15, 2014**
- **Article VII Delegate Assembly** revised and approved at Delegate Assembly November 16, 2019
- **Article III Membership and XIII Amendment** revised and approved at Delegate Assembly November 6, 2021

Duties of AMATYC Delegates

Responsibilities of the Delegate Assembly

1. To vote on all dues changes as submitted by the Executive Board.
2. To vote on constitution and by-law changes approved by the Executive Board prior to submission for membership ratification.
3. To present written recommendations to the Executive Board to be considered at the following Executive Board meeting.
4. To approve position statements as presented by the Executive Board. Policy-making procedure has been formalized. Each committee chair submits statements (position statements, etc.) to the AMATYC Editing Director. Following its approval, the statement can be submitted to the Executive Board for its review. An open hearing is then held at an AMATYC conference. The statement is then brought before the Delegate Assembly. If the Delegate Assembly approves, the statement will then become AMATYC policy. The Delegate Assembly has the option of overriding a Board decision if 2/3 of the AMATYC delegates present approve bringing it to the Delegate Assembly for vote. Documents submitted must have the word "draft" written on every page until approval is granted.

Duties of state/province delegates

1. Attend Delegate Assembly (no reimbursement).
2. Appoint campus representatives for the colleges assigned to him/her by the Regional Vice President.
3. Actively solicit membership in AMATYC, especially membership of campus representatives.
4. Assist the Regional Vice President in updating the list of potential AMATYC members from his/her state/province.
5. Assist the Regional Vice President in updating the directory of two-year colleges in his/her state/province.
6. Furnish the Regional Vice President with a calendar of activities and concerns of members from the state/province for possible inclusion in the regional page of the *AMATYC News*.
7. Encourage articles for the *MathAMATYC Educator* and other AMATYC publications.

Duties of campus representatives

1. Assist the state/province delegate in promoting the activities of the association at his/her campus.
2. Forward a list of possible candidates for AMATYC membership to the assigned state/province delegate.
3. Assist the assigned state/province delegate and/or the Regional Vice President in updating the directory of two-year colleges in the state/province.
4. Keep the Regional Vice President aware of the changing curriculum patterns at his/her college by sending news related items to the assigned delegate.
5. Furnish the Regional Vice President items of interest from his/her school for the *AMATYC News* according to schedule.
6. Encourage colleagues to submit articles to the *MathAMATYC Educator*.
7. Solicit AMATYC institutional membership at home institution.

Rules of Conduct for AMATYC Delegate Assembly

Debate

In the virtual meeting, if a delegate wishes to speak to a motion, they will submit a request through an online form. The link to the form will be provided in the meeting chat. A delegate will enter their name, select their delegate type, and whether they wish to speak for a motion (pro), speak against a motion (con), or ask a process question (such as call the question). Process comments will be taken before pro and con comments. Process questions are used to make an original motion, to call for the question, to clarify, or to rise to a point of order. Pro or con comments will alternate until all comments are made. If there are delegates wishing to make comments (either pro or con), and there are no comments on the opposing side, comments will be heard from all delegates wishing to speak until all have been heard or the question has been called. Amendments and motions to table are considered "con." Each delegate who wishes to speak must be recognized by the President.

Debate begins with the maker of the original motion. Debate alternates between pro and con with the maker of the original motion considered pro. When there are no speakers left, debate ends, and the vote is taken. No speaker may speak to a motion more than two times. Time limits may be imposed on debate either by the President or by a vote of the body. An initial limit of ten minutes will be used.

Only members of the Delegate Assembly are permitted to speak.

Other Times (no motion on the floor)

The rules above are in effect any time a motion is on the floor. If no motion is under consideration, delegates may ask to speak by just telling their name and delegate status in the chat.

Open Discussion

Open discussion by delegates at the end of the Delegate Assembly is encouraged. At this time, delegates may present appropriate topics for consideration.

Topics presented must be clearly related to the purposes of AMATYC. The president shall interrupt and rule a speaker out of order if remarks do not lie within these guidelines.

A two-minute limit per delegate is observed. After hearing the topic and rationale, the president may open discussion on the topic, move to the next topic, or assign the topic to an appropriate committee for further discussion.

Delegate Assembly Motion

To: AMATYC Delegate Assembly

Year: 2024

Subject: Delegate Assembly Rules of Conduct

Submitted by: George Hurlburt, AMATYC President

Date: 10/11/2024

Motion: That the AMATYC Delegate Assembly approve the Rules of Conduct for the 2024 AMATYC Delegate Assembly as attached.

Rationale: Robert's Rules of Order specify that for a meeting you must have (a) Rules of Conduct, (2) an Agenda, and (3) a quorum.

To have a successful meeting, everyone must:
- Participate, and no one should dominate;
- Speak openly and honestly;
- Speak in a non-intimidating, non-harassing, and non-bullying manner
- Listen carefully to what others have to say;
- Search for common ground/agreement; and
- Stay on task.

It is a maker's goal that the Rules of Conduct help us achieve the bullets above and have a successful meeting.

Action taken by the Delegate Assembly on: 12/14/24

____Approved	**____Postponed Until _____**	**____Withdrawn**
____Disapproved	**____Returned for Further Study**	**____Other**

Delegate Assembly Motion

To: AMATYC Delegate Assembly

Year: 2024

Subject: Delegate Assembly Agenda Approval

Submitted by: George Hurlburt, AMATYC President

Date: 10/11/2024

Motion: That the AMATYC Delegate Assembly approve the agenda for the 2024 AMATYC Delegate Assembly as attached.

Rationale: Robert's Rules of Order specify that for a meeting you must have (a) Rules of Conduct, (2) an Agenda, and (3) a quorum.

Action taken by the Delegate Assembly on: 12/14/24

____Approved	**____Postponed Until _____**	**____Withdrawn**
____Disapproved	**____Returned for Further Study**	**____Other**

2023 Delegate Assembly Minutes – with Attachments

American Mathematical Association of Two-Year Colleges

DELEGATE ASSEMBLY MINUTES

November 18, 2023

3:00 – 3:34 pm (EST)

Via Zoom

I. Call to Order

President Laura Watkins called the meeting to order at 3:00 pm (EST).

II. Welcome and Introductions

President Watkins welcomed the delegates and announced that Donn King was appointed as Parliamentarian and Past President Kathryn (Kate) Kozak as Timekeeper. President Watkins introduced the members of the 2022 – 2023 AMATYC Executive Board.

- Laura Watkins – President
- George Hurlburt– President-Elect
- Kathryn (Kate) Kozak – Past President
- Nancy Rivers – Secretary
- Barbra Steinhurst – Treasurer
- AJ Stachelek – Northeast Vice President
- Dennis Ebersole – Mid-Atlantic Vice President
- Alvina Atkinson – Southeast Vice President
- Brandon Bartley – Midwest Vice President
- Dale Johanson – Central Vice President

- Shannon Ruth – Southwest Vice President
- Sarah Pauley – Northwest Vice President
- Eddie Tchertchian – West Vice President

III. Announcement of Quorum

Secretary Nancy Rivers announced a delegate count of 98 out of 145 delegates and stated that there was a quorum.

IV. Approval of the Rules of Conduct

Without objection the Rules of Conduct (page 26 of the Delegate Assembly Packet) were approved.

V. Approval of the Agenda

The Agenda is included in the 2023 Delegate Assembly Packet (page 1 – 2). The numbering of the items after item VIII, which is labeled as Reports, is incorrect. The remaining items are to be renumbered in the following manner:

Old Business to be IX,
New Business to be X,
Items for Discussion to be XI,
Announcements to be XII, and
Adjournment to be XIII.

Without objection the Agenda (pages 1 – 2 of the Delegate Assembly Packet) with corrected numbering was approved.

VI. 2022 Delegate Assembly Minutes

President Watkins reported that the minutes from the 2022 Delegate Assembly (beginning on pages 19 through 24 of the Delegate Assembly Packet) held virtually were reviewed, corrected, and approved by the 2022 Delegate Assembly Minutes Approval Committee, chaired by Dale Johanson, 2022 – 2023 Vice President, Central.

VII. Approval of the 2023 Minutes Review Committee

Information on the Delegate Assembly Minutes Approval Committee is in the Delegate Packet (pages 27 – 29).

Motion: That the membership of the Minutes Review Committee for the 2023 AMATYC Delegate Assembly be approved as announced. (Attachment A)

The 2023 Delegate Assembly Minutes Approval committee consists of:

- AJ Stachelek, Northeast Vice President, Chair
- Carol Howald, State Delegate
- Dustin Walsh, Affiliate Delegate
- Trisha White, Affiliate President
- Nancy Sattler, AMATYC Past President
- Nancy Rivers, 2022 – 2023 AMATYC Board Secretary, will serve in an *ex officio* capacity.

Without objection the 2023 Delegate Assembly Minutes Approval Committee was approved as presented.

VIII. Reports

A. President's Report

The report was received in the Delegate Assembly packet (pages 30 – 31).

Additional items to include:

- There were 730 attendees and 55 guests for a total of 785 individuals for the conference.

B. Treasurer's Report

The report was received in the Delegate Assembly packet (pages 32 – 38).

C. AMATYC Foundation

The report was received in the Delegate Assembly packet (pages 39 – 40).

D. Strategic Planning

The strategies identified by AMATYC Executive Boards to address the Priorities outlined in the 2018 – 2023 Strategic Plan were received in the Delegate Assembly packet (pages 41 – 59). The 2024 – 2029 AMATYC Strategic Plan along with updated Mission, Vision, and Core Values approved by the 2022-2023 Executive Board are in the Delegate Assembly packet (pages 60 – 62).

E. Conference Site Selection

There was a site selection in 2022 due to relocating the 2026 AMATYC Annual Conference. Negotiations have been concluded and it was announced the 2026 AMATYC Annual Conference will be held in Philadelphia, PA. (page 63 of the Delegate Assembly packet).

IX. Old Business

During the 2021 Delegate Assembly, the delegates approved the position statement titled *Initial Placement of Students into the Mathematics Curriculum.* The delegates indicated at that time that the position statement should be referred back to the Placement and Assessment ANet for additional refining and the inclusion of references that support the espoused position. The ANet is continuing to work on the position statement and is following the standard position statement timeline. There is no report at this time.

X. New Business

A. *Standards for Content*: Julie Phelps

Motion: That the AMATYC Delegate Assembly approve the updates to the Standards for Content. (Attachment B)

Motion made by Julie Phelps (Chair), Standards Committee

Motion Approved

B. *Standards for Intellectual Development:* Julie Phelps

Motion: That the AMATYC Delegate Assembly approve the updates to the Standards for Intellectual Development. (Attachment C)

Motion made by Julie Phelps (Chair), Standards Committee

Motion Approved

C. *Standards for Pedagogy:* Julie Phelps

Motion: That the AMATYC Delegate Assembly approve the updates to the Standards for Pedagogy. (Attachment D)

Motion made by Julie Phelps (Chair), Standards Committee

Motion Approved

XI. Items for Discussion

- Sean Saunders, OCMA – Question for consideration for the future: Could discounts for lifetime memberships be given for those who have been members for consecutive years, the discount being proportional to the length of consecutive membership?

- Helen Burn, Mathematics Pathways Anet – Potential Discussion: Requested the Executive Board consider making a written statement around the importance of DEI efforts to our professional work. The concern arises from state-level legislation that is emerging across the country regarding DEI

initiatives. Perhaps consider partnering with the MAA or CBMS in fashioning the statement.

- Nancy Sattler, Past President – In response to Helen Burn's concern, the new Equity chapter for the AMATYC Standards is being written. Please, provide input when it becomes available for review.

XII. Announcements

President Watkins made the following announcements:

A. Judith (Judy) Atkinson and April Crenshaw were recipients of the Teaching Excellence Award.

B. The members of the 2024 – 2025 Nominating Committee were announced

- Vera Hu, Northeast Region
- Chris Ward, Mid-Atlantic Region
- Caroline Sampson, Southeast Region
- Carol Hannahs, Midwest Region
- Curtis Mitchell, Central Region
- Emily Thomasson, Southwest Region
- Sandra Wildfeuer, Northwest Region
- Ben Moulton, West Region
- Barbara Leitherer, at large
- Dave Tannor, at large
- Christine Mirbaha, at large
- Oscar Villalobos, at large
- Laura Watkins, Chair

C. The members of the 2025 Teaching Excellence Award Committee have been selected.

- Chair, Eddie Tchertchian, President-Elect
- Bridget Dart, Northeast
- Carol Howald, Mid-Atlantic
- April Crenshaw, Southeast
- Paul McCombs, Midwest
- Trisha White, Central

- Katerina Vishnyakova, Southwest
- Vikki Maurer, Northwest
- Tan Nguyen, West
- (yet to be appointed), Adjunct

XIII. Adjournment

President Watkins recognized and thanked the Local Events Coordinator for the Omaha Conference, Amanda Olson, and her local team for all the work they performed for the Omaha Conference. Turi Suski, and the rest of the conference committee were also thanked for their year-long commitment and great work in bringing this wonderful conference in Omaha. Conference presenters and attendees were also thanked for a wonderful conference.

AMATYC Delegates were thanked for their participation in the Delegate Assembly.

President Watkins introduced the new 2024 – 2025 AMATYC Executive Board.

- George Hurlburt, President
- Eddie Tchertchian, President-Elect
- Laura Watkins, Past President
- Kyle Kundomal, Treasurer
- Jonathan Weisbrod, Secretary
- AJ Stachelek, Northeast Vice President
- Dennis Ebersole, Mid-Atlantic Vice President
- Alvina Atkinson, Southeast Vice President
- Brandon Bartley, Midwest Vice President
- Dale Johanson, Central Vice President
- Jennifer Travis, Southwest Vice President
- Jessica Bernards, Northwest Vice President
- Lindsey Gerber, West Vice President

The meeting adjourned at 3:34 pm (EST).

Nancy Rivers, Secretary, 2022-2023 Laura Watkins, President, 2022-2023

Attachment	Title	Page
A	Minutes Review Committee, 2023 AMATYC Delegate Assembly	8
B	Standards for Content	9
C	Standards for Intellectual Development	13
D	Standards for Pedagogy	17

Attachment A: Minutes Review Committee, 2023 AMATYC Delegate Assembly

The 2023 Delegate Assembly Minutes Approval committee consists of:

- AJ Stachelek, Northeast Vice President, Chair
- Carol Howald, State Delegate
- Dustin Walsh, Affiliate Delegate
- Trisha White, Affiliate President
- Nancy Sattler, AMATYC Past President
- Nancy Rivers, 2022 – 2023 AMATYC Board Secretary, will serve in an *ex officio* capacity.

B: ATTACHMENT: Standards for Content

STANDARDS FOR CONTENT

AMATYC takes the position that to truly understand mathematics and statistics one must know it conceptually, contextually, and procedurally and know that problem solving is the heart of doing mathematics. The successful problem solver can view the world from a mathematical perspective (Schoenfeld, 1992).

Students develop the ability to solve meaningful problems through in-depth study of mathematics and statistics topics that build on their prior knowledge and experiences. When presented in the context of relevant applications, abstract topics grow naturally out of the need to describe or represent the patterns that emerge. In general, the meaning, use, and communication of mathematical and statistical ideas must be emphasized. Attention to rote memorization and manipulation must decrease.

AMATYC's Standards for Content elaborates on the inclusion of threads throughout the curriculum related to numeracy, symbolism and algebra, geometry and measurement, functions, discrete mathematics, statistics and probability, and deductive proof. The standards that follow are not meant to outline a set of courses. Rather, they are strands to be included in any post-secondary mathematics pathways in whatever structural form they may take. The specific themes were selected so that learners can develop the knowledge and skills needed to be discerning citizens, making data-based decisions and evaluating mathematical and statistical arguments. Students should also be equipped to pursue more advanced study in mathematics and other disciplines.

Standard C-1: Numeracy

Students will accurately process, interpret, and communicate numerical information.

"Numeracy is the ability to process, interpret, and communicate numerical, quantitative, spatial, statistical, even mathematical, information, in ways that are appropriate for a variety of contexts, and that will enable a typical member of the culture or subculture to participate effectively in activities that they value." (Evans, 2000) Students should be able to identify and perform appropriate arithmetic operations, estimate reliably, judge the reasonableness of numerical results, understand orders of magnitude, think proportionally, and make sense of data (especially large data sets) to recognize patterns. This mathematical reasoning may be enhanced through the use of technology.

Standard C-2: Symbolism and Algebra

Students will be able to interpret algebraic symbols, translate problems into appropriate symbolic representations, and use those representations to effectively answer questions and make predictions.

Students will move beyond concrete numerical operations and use algebraic thinking and symbols to solve problems. Students will represent mathematical situations using a combination of appropriate symbolic, graphical, and numerical methods to form conjectures about the problems. Applications of algebraic thinking include derivation of formulas, translation of realistic problems into mathematical statements, conversion between different representations, and the solution of equations by appropriate methods.

Standard C-3: Geometry and Measurement

Students will develop a spatial and measurement sense, learn to visualize and use geometric models, recognize measurable attributes, and use and convert units of measure.

Geometry is the study of visual patterns. Every physical object has a shape, so every physical object is geometric. Furthermore, mathematical objects can be represented geometrically. For example, real numbers are represented on a number line, forces are represented with vectors, and statistical distributions are represented with the graphs of curves. The use of dynamic geometry software provides for efficient integration of geometric concepts throughout the curriculum, allowing students to more effectively visualize geometric representations.

Students will demonstrate their abilities to visualize, compare, and transform objects using geometric representations. Students will develop a spatial sense including the ability to draw (either by hand or with the use of technology) one-dimensional , two-dimensional, and three-dimensional shapes from different perspectives, and extend a concept, such as vectors, to higher dimensions. Their knowledge of geometry will enable them to determine dimensions, area, perimeter, and volume of common plane and solid figures. Suggested topics might include comparison of geometric objects (including congruence and similarity), graphing, prediction from graphs, measurement, and vectors.

Standard C-4: Function

Students will demonstrate understanding of the concept of function by several means - numerically, graphically, symbolically, and verbally - and incorporate it as a central theme into their use of mathematics.

Key curricular issues continue to stimulate dialogue and educational research. Since the National Research Council recommended in 1989 that “If it does nothing else, undergraduate mathematics should help students develop function sense...” (National Research Council, 1989), considerable research has been conducted on what it means for students to have an understanding of function. Studies report that a well-developed understanding of function correlates closely with success in calculus, as well as facilitating the transition to advanced mathematical thinking (Tall, 1992). In addition, faculty continue to search for methods to develop a student’s understanding of the concept of variable. Students who are able to view variables as representing quantities whose values change dynamically along a continuum have been shown to have ready

access to fundamental ideas, such as rate of change and limits, and exhibit higher levels of achievement in mathematics. (Ursini, S., & Trigueros, M., 1997, Jacobs, S., 2002)

Students will know when a relation is a function. Students will use function notation and perform operations on functions. Students will interpret functional relationships between two or more variables and formulate such relationships when presented in tabular, graphical, symbolic, or verbal representations as well as convert between representations. Suggested topics include generalization about families of functions, transformations of functions, use of functions to model realistic problems, and the behavior of functions.

Standard C-5: Discrete Mathematics

Students will be able to recognize and use discrete mathematical algorithms and develop combinatorial abilities in order to solve problems of finite character and enumerate sets without direct counting.

This standard provides guidance for incorporating topics from discrete mathematics courses (which may require precalculus or calculus as prerequisites) into introductory college mathematics courses. Applications in the social and behavioral sciences, business, computing, and other areas frequently do not exhibit the continuous nature commonly treated by techniques studied in introductory college mathematics pathways. Rather, these applications involve discrete objects and focus on logic and enumeration (Dossey, 1991; Hart, 1991). The standard echoes the recommendations made in the NCTM *Standards* (NCTM, 2008) and in *Reshaping College Mathematics* (Siegel, 1989); namely, the conceptual framework of discrete mathematics should be integrated throughout the introductory mathematics pathways, as appropriate, in order to improve students' problem-solving skills and prepare them for the study of higher levels of mathematics as well as for their careers. Suggested topics in discrete mathematics may include set theory, logic, graph theory, game theory, algorithms, proofs, sequences, series, permutations, combinations, recursion, linear programming, finite graphs, voting systems, and matrices.

Standard C-6: Statistics and Probability

Students will use data to inform decisions and understand the world around them.

The basic concepts of statistics, data science, and probability should be integrated throughout the curriculum using relevant contexts and appropriate technology. Students should recognize and describe variability, take variability into account when making decisions, as well as make and communicate data-based arguments. Suggested topics include appropriate methods for collecting data, creating and interpreting data visualizations, sampling variability, drawing conclusions from sample data, modeling, applications of probability, and the ethical use of data.

Standard C-7: Deductive Proof

Students will appreciate the deductive nature of mathematics as an identifying characteristic of the discipline; recognize the roles of definitions, axioms, and theorems; and identify and construct valid deductive arguments.

The use of deductive proof in mathematics sets it apart as a unique area of human endeavor. Where appropriate to enhance student understanding of mathematical concepts, mathematical proofs, including indirect proofs and mathematical induction, will be introduced. Students will engage in exploratory activities that will lead them to form statements of conjecture, test them by seeking counterexamples, and identify and, in some instances, construct arguments verifying or disproving the statements. A variety of proof techniques, including the use of manipulatives, diagrams, and pictures to create proofs without words or symbols, should also be encouraged.

ATTACHMENT C: Standards for Intellectual Development

1STANDARDS FOR INTELLECTUAL DEVELOPMENT

At the conclusion of the first two years of their college studies, all students should have progressed in their development of certain intellectual abilities and of other competencies and knowledge. Introductory college courses across disciplines should be designed to broaden an existing educational foundation and allow students to appreciate mathematics, statistics, and data science as powerful reasoning and general problem solving tools. AMATYC's Standards for Intellectual Development include the areas of problem solving, modeling, reasoning, connecting with other disciplines, communicating, using technology, developing mathematical prowess, and linking multiple representations.

Standard 1-1: Problem Solving

Students will engage in relevant, authentic problem solving and mathematical and statistical thinking.

Students will use problem-solving strategies that require persistence, analysis of assumptions, intellectual risk taking and application of appropriate procedures. These strategies should include posing questions; organizing information; constructing visual representations; solving similar, simpler problems; analyzing situations through trial and error, graphing, and modeling; and drawing conclusions by translating, illustrating, and verifying results. The students should be able to communicate and interpret their results.

Emphasizing problem solving will make mathematics more meaningful to students. The problems used should be relevant to the needs and interests of the students in the class. Such problems provide a context as well as a purpose for learning new skills, concepts, and theories.

Standard 1-2: Modeling

Students will learn mathematics and statistics through modeling real-world situations.

Students will participate in the mathematical and statistical modeling of situations from the world around them and use the models to make predictions and informed decisions. Swetz (1991) describes the mathematical modeling process as "(1) identifying the problem, including the conditions and constraints under which it exists; (2) interpreting the problem mathematically; (3) employing the theories and tools of mathematics to obtain a solution to the problem; (4) testing and interpreting the solution in the context of the problem; and (5) refining the solution techniques to obtain a 'better' answer to the problem under consideration, if necessary" (pp. 358-359). The statistical modeling process is similar but also involves connecting data, chance, and context (Pfannkuch,

et.al, 2018).

Whether students develop their own models or evaluate models that are given to them, they should look beyond how well a proposed model fits a set of data and attempt to provide contextual, mathematical, statistical, or data-based reasons for why the model is valid.

Standard 1-3: Reasoning

Students will expand their mathematical and statistical reasoning skills as they develop convincing mathematical, statistical, and data-based arguments.

Students will regularly apply inductive and deductive reasoning techniques to build convincing mathematical, statistical, and/or data-based arguments. They will develop conjectures on the basis of previous knowledge, data, and intuition and test these conjectures by using logic and deductive and inductive proof, by framing examples and counterexamples, and by probabilistic and statistical reasoning. They will then draw appropriate conclusions and communicate their argument convincingly. In addition, students will judge the validity of mathematical, statistical, and/or data-based arguments using the same reasoning skills.

Standard 1-4: Connecting with Other Disciplines

Students will develop the view that mathematics, statistics, and data science are growing disciplines, are interrelated with human culture, and understand their connections to other disciplines.

If students are to gain a sense that mathematics, statistics, and data science are growing disciplines, course content must include current and relatable topics such as algorithms needed for computer-based solution processes, the use of probability in understanding chance and randomization, modern approaches to statistical inference and data visualization, and the applications of non-Euclidean geometries. These topics lend themselves to discussions of who developed the ideas, when they were developed, and what kind of human endeavors motivated their development, which reinforces recognition of math in all parts of life and cultures. Students should develop an appreciation of how mathematics and statistics provide a language for the sciences; play a role in art, music, and literature; are applied by social scientists and practitioners in health care fields; are used in business and manufacturing; and have impacted history.

Standard 1-5: Communicating

Students will develop the ability to read, write, listen to, and speak the languages of mathematics, statistics, and data science.

Students will develop the skills necessary to communicate ideas and procedures, and

results using appropriate mathematical and statistical vocabulary and notation. Students will develop the ability to communicate the results of analyses through appropriate models and visualizations. Furthermore, mathematics, statistics, and data science faculty will adopt instructional strategies that develop both oral and written communication skills within a context of authentic applications relevant to a diverse student population. As students learn to speak and write about mathematics, statistics, and data science, they develop acumen and become better prepared to use this knowledge and these skills beyond the classroom.

Standard 1-6: Using Technology

Students will use appropriate technology to enhance their thinking and conceptual understanding and to solve problems.

Students will develop an ability to use technology to enhance their study of mathematics, statistics, and data science. Current technology can be used to aid in the understanding, exploration, and visualization of concepts and the analysis of data. Students can use technology to test conjectures, explore ideas, and verify that theorems are true in specific instances. They should also embrace technology as a tool to aid in the solution of authentic problems and to validate those solutions. Students should be able to judge the reasonableness and accuracy of the results generated by technology.

Standard 1-7: Developing Mathematical Prowess

Students will engage in rich experiences in the study of mathematics, statistics, data science, and related fields that encourage independent, nontrivial exploration and will develop and reinforce tenacity and confidence in their abilities and inspire them to further their studies in these fields.

Students will develop self-confidence and persistence while engaging with mathematics, statistics, and data science problem-solving. These problems will not always have unique solutions but will provide experiences that develop the ability to conduct independent explorations. At the same time, they will learn to transfer problem-solving strategies to a variety of contexts (Druckman & Bjork, 1994) and appreciate mathematics, statistics, and data science as disciplines. They will visualize themselves using mathematics and statistics effectively in their professional work and everyday lives. They will develop an awareness of careers in mathematics and related disciplines.

Standard 1-8: Linking Multiple Representations

Students will select, use, and translate among mathematical and statistical representations—numerical, graphical, symbolic, and verbal—to organize information and solve problems using a variety of techniques.

Students will explore complex problems, using multiple approaches, and explain their solutions in both oral and written form. Students will be motivated to go beyond the mastery of basic operations, statistical algorithms, or algebraic manipulations to a real understanding of how to use mathematics and statistics, the meaning of the answers, and how to interpret them.

ATTACHMENT D: Standards for Pedagogy

STANDARDS FOR PEDAGOGY

When planning a lesson, an instructor should start with the question "what should students do?", rather than "what should I do?" AMATYC supports the idea that learning is a social endeavor; therefore, it is important that we humanize the culture of learning mathematics, statistics, and data science (Yeh & Otis, 2019). The most impactful classrooms use learner-centered pedagogies, such as active learning, in a classroom environment that fosters a sense of community (CBMS, 2016; NCTM, 2014). Faculty must create frequent opportunities for students to develop and demonstrate conceptual, contextual, and procedural understanding of topics. This requires pedagogical practices that may include students using concrete tools to model abstract ideas, engaging in mathematical and statistical discourse, connecting different representations of the same idea, using prior knowledge to construct new knowledge, and understanding connections between the mathematics and statistics they are learning and what they already know.

Progress has been made toward the goal of more effectively teaching students to deeply understand mathematics and statistics; however, there is a need for more faculty to consistently identify and use pedagogical strategies that promote equitable student learning. AMATYC's Standards for Pedagogy that follow recommend the use of instructional strategies that provide for student activity and student-constructed knowledge. Evidence-based strategies which can be incorporated by most teachers without requiring substantial faculty development are highlighted in these standards. Furthermore, the standards are in agreement with the instructional recommendations contained in *Common Vision* (2015). The standards include active learning, making mathematical connections, multiple representations and approaches, teaching with technology, experiencing mathematics and statistics, and assessment of student learning.

Standard P-1: Active Learning

Faculty will facilitate active learning that promotes increased and deeper mathematical and statistical reasoning abilities in students. Widespread implementation of high-quality active learning can help reduce or eliminate achievement gaps in STEM courses and promote equity in higher education.

The Conference Board of Mathematical Sciences (CBMS) uses the phrase "active learning to refer to classroom practices that engage students in activities, such as reading, writing, discussion, or problem solving, that promote higher-order thinking" and calls on institutions to incorporate active learning into post-secondary instruction (2016).

Active learning can be further defined by the following guiding principles: (1) students' deep engagement in mathematical thinking (PRoficiency), (2) instructors' interest in and use of student thinking (OWnership), (3) student-to-student interaction (Engagement), and (4) instructors' attention to equitable and inclusive practices (Student Success). Active learning benefits all students and

offers disproportionately greater benefits for individuals from underrepresented groups by reducing achievement gaps in exam scores and passing rates (Laursen & Rasmussen, 2019)

Learning occurs when students construct their own knowledge through collaboration and when students are cognitively engaged with mathematics (Smith, et al, 2021). Participation in mathematical and statistical discourse, as well as writing and reading about mathematical and statistical ideas teaches students how to communicate about mathematics both orally and in writing. This creates a sense of community in the classroom and allows students to learn to work effectively to solve challenging problems. “For students from different socioeconomic, cultural, and educational backgrounds, and for students with different approaches to learning and social interaction, a supportive community of learners can be cultivated using AL techniques.” (CBMS, 2016, para. 13) “Working in groups also provided less confident or less able students with opportunities to explain, question, agree and disagree and test their thinking in a less threatening context” (Sharma, 2015).

Standard P-2: Making Mathematical Connections

Faculty will actively involve students in meaningful mathematics work that connects to students’ experiences and focuses on broad mathematical and statistical themes that build connections within branches of mathematics, and with other disciplines. Students will view mathematics and statistics as relevant to their lives. Making mathematics and statistics relevant and meaningful is the collective responsibility of faculty, administrators, and producers of instructional materials.

Traditionally, there has been a disconnect between classroom mathematics and real-world mathematics. Mathematics and statistics must not be presented asisolated sets of rules and procedures, but rather as disciplines that arose out of, and are connected to, the needs of other fields. Further, students should be encouraged to make explicit connections between mathematical concepts, including those that may have been traditionally compartmentalized. Topics learned in one branch of mathematics should be explicitly aligned with topics from another, e.g. how principles learned in arithmetic can be generalized to principles in algebra, which can then be connected to topics in geometry.

Students must have the opportunity to observe the interrelatedness between scientific and statistical, and mathematical investigation, and see first-hand how mathematics and statistics connect to their lives. Curriculum should include meaningful mathematics work that allow students to bring their experiences into the classroom. Authentic applications help students see how mathematics and statistics are relevant in their lives and in the world around them (Benson-O'Connor, 2019; GAISE, 2016).

Understanding that mathematics and statistics have relevance to their life and to the world in general improves student motivation to learn and ability to connect

ideas. Students who understand the role that mathematics and statistics have played in their cultures and the contributions of their cultures to mathematics and statistics are more likely to persevere in their study of the discipline. Faculty should include aspects of mathematics history and contemporary mathematics that provide counterexamples to the pervasive Eurocentric bias found in modern mathematics. Instructional activities should provide examples of how mathematics and statistics are used in a variety of cultures, and by people of every race, ethnicity, gender identity, class, and other social groups. Additionally, instruction should be culturally relevant, culturally responsive, and culturally sustaining (Alim, 2017).

P-3 Multiple Problem Solving Strategies

Faculty should help students become flexible problem solvers by allowing students to discover multiple problem solving strategies and to identify efficient strategies.

Flexibility in problem solving is an important element of mathematical proficiency (CCSSI, 2012). Faculty should provide opportunities for students to discover their own problem solving strategies and reflect on them (Star & Rittle-Johnson, 2007). Flexibility develops from exposure to multiple methods, comparison of worked examples, prompting and direct instruction, invention of a second method for a previously solved problem, and the opportunity to collaborate with peers (Newton et al., 2020). Experience with multiple problem solving strategies helps students adaptively choose more efficient strategies based on the content or context of the problem (Rittle-Johnson & Star, 2007).

P-4 Multiple Representations of Mathematical Concepts

Faculty will provide opportunities for students to use, share, and make sense of multiple representations of mathematical and statistical ideas. These multiple representations may include words, equations, different algebraic notations, graphs, diagrams, models, manipulatives, and computer code.

Mathematics and statistics are connected webs of knowledge where conceptual knowledge links the individual pieces of information. “The development of this conceptual knowledge can only be done so by the construction of relationships between pieces of information” (Hiebert, 1986). “The skills that are at the focal point of conceptual learning in mathematics are the ability to identify and express the same concept in different forms of representation, to choose the most appropriate representation from among the various representations, and to be aware of the advantages and disadvantages of the representations” (İncikabı, 2017).

Using multiple representations broadens and deepens the connections students make between concepts (Abell et al., 2018; Gleason & Hughes Hallett, 1992; Knill, 2009). This will motivate students to go beyond the mastery of basic

operations to a deeper understanding of how to use mathematics and statistics, the meaning of the answers, and how to interpret them (NRC., 1989)

Standard P-5: Teaching with Technology

Faculty will use appropriate technology to promote deeper student learning and will model the use of technology.

Technology is an integral part of modern mathematics and statistics instruction. Faculty should be purposeful in their selection of technology, considering how it aids learning mathematical, statistical, and data science ideas. Pedagogy will include the use of technology to solve, model, and investigate mathematical and statistical problems and will provide students with opportunities to develop conceptual understanding. Emphasis should be placed on the use of high-quality, flexible, accessible technologies that enhance learning. The use of tools that students are likely to encounter in future work and careers, such as statistical software and web-based apps, is essential.

Standard P-6: Experiencing Mathematics and Statistics

Faculty will provide learning activities beyond the scope of the classroom that promote independent thinking and challenge students to persistently pursue efforts over an extended time period.

Faculty should seek opportunities to expand student knowledge of how mathematics and statistics are used beyond the scope of the classroom by providing learning activities, including open-ended projects and research opportunities. In addition, they should help their institutions form partnerships with area businesses and industries to develop opportunities for students to have realistic career experiences (Reich, 1993). Such activities will enable students to acquire the confidence to access and use needed technical information, and to independently form conjectures from an array of specific examples, and to draw conclusions from general principles.

Standard P-7: Assessment of Student Learning

Faculty will incorporate multiple strategies for formative and summative assessments to inform future pedagogical practices and to help students recognize their current understanding.

Formative and summative assessments are complementary tools for assessing the progression of student learning and informing instruction. Formative assessment benefits students and faculty by helping them recognize students' current knowledge and setting goals for future understanding. Formative assessment takes place regularly during a term and is designed to be low-stakes and informative. Any activity that gives students an opportunity to engage with feedback to improve their understanding is an opportunity for formative

assessment. Another goal of formative assessment is to inform teaching practices and strategies to best meet the needs of learners. Good formative assessment produces significant, and often substantial, learning gains (Black & William, 2005).

Formative assessment is most effective when the following principles are applied (Gehrtz, Brantner, & Andrews, 2022; Purcell, 2014; Yale University, 2021).

- Regularly refer to the learning objectives and explicitly connect them to the learning activities.
- Watch and listen to students as they work to understand student thinking before intervening. Ask open-ended questions that provide opportunities for students to further describe and explain their thinking and reasoning.
- Use qualitative oral and written comments that help students recognize what they understand and what they need to do to increase understanding.
- Adapt teaching plans as a result of the formative assessment outcomes.
- Useful and timely feedback is essential for assessments to lead to learning (GAISE, 2016)

Summative assessments are for the purpose of evaluating student learning and assigning grades. It is especially important to ensure that the assessment aligns with the goals and expected outcomes of the instruction. Instructors should use multiple forms of summative assessment such as projects, portfolios, and demonstration of understanding in authentic situations. Instructors should consider the following principles when designing summative assessments (Blonder, et al.; Yale University, 2021).

- Design clearly understood questions that align with learning objectives.
- Provide an opportunity for students to demonstrate their understanding of how the foundational concepts of the course are interrelated and can be applied beyond the course contexts.
- Provide opportunities to close the gap between current and desired performance, such as opportunities for resubmission.
- Consider matters of equity to ensure all students have opportunities to succeed. This may require flexible structure in conducting assessments. Flexible assessments, such as team quizzes, take home assignments, and projects provide more equity and inclusion in math courses.

Delegate Assembly Minutes Approval Procedure

1. At each Delegate Assembly, a Minutes Review Committee of five voting members shall be recommended by the President and approved by motion of the Delegate Assembly. The committee chair shall be a continuing Regional Vice President, or if none, another continuing officer other than the President and the other members shall include a state delegate, an affiliate delegate, and affiliate president and an AMATYC Past---President. The committee will meet briefly at the close of the Delegate Assembly.

2. The AMATYC Secretary shall supply a draft copy of the minutes to the committee within 14 days after the Delegate Assembly. The chair should have an electronic document version for editing.

3. The committee chair shall receive suggestions from the committee, collate and synthesize the suggestions and forward suggestions to the Secretary. The chair should use a review process that ensures that a majority of the committee members are satisfied with the proposed changes.

4. The committee chair will conduct an email ballot to approve the minutes. A majority of the committee must approve the minutes. These approved minutes will be sent to the AMATYC Secretary within 60 days of the Delegate Assembly.

5. A copy of the approved minutes will be included in the delegate packet.

6. At the following Delegate Assembly, the committee chair will report that the minutes were reviewed, corrected, and approved by the Minutes Review Committee.

At each Delegate Assembly, a motion of the Delegate Assembly shall appoint a Minutes Review Committee of five voting members.

Qualifications	Name	Affiliation
Regional Vice President (Chair)		Executive Board
State Delegate		
Affiliate Delegate		
Affiliate President		
AMATYC Past President		AMATYC Past President

Proposed members of the Minutes Review Committee for the 2024 Delegate Assembly

Qualifications	Name	Affiliation
Regional Vice President (Chair)	Alvina Atkinson	Executive Board
State Delegate	Chauntelle Eckhaus	VT
Affiliate Delegate	Catalina Yang	CMC^3 South
Affiliate President	Cristina Dita	TexMATYC
AMATYC Past President	Nancy Sattler	AMATYC Past President
AMATYC Secretary (*ex officio)*	Jonathan Weisbrod	Executive Board

Delegate Assembly Motion

To: AMATYC Delegate Assembly

Year: 2024

Subject: Delegate Assembly Minutes Approval Committee

Submitted by: George Hurlburt, AMATYC President

Date: 10/11/2024

Motion: That the AMATYC Delegate Assembly

approve the membership of the Minutes Review Committee for the 2024 AMATYC Delegate Assembly as attached.

Rationale:

The Delegates Assembly Minutes Approval Procedure as listed in the AMATYC Policy and Procedures Manual, section 4.2.3 states: At each Delegate Assembly a Minutes Review Committee of five voting members shall be recommended by the President and approved by motion of the Delegate Assembly. The committee chair shall be a continuing Regional Vice President, or if none, another continuing officer other than the President, and the other members shall include a state delegate, an affiliate delegate, an affiliate president and an AMATYC Past President. This committee will meet briefly at the close of the Delegate Assembly.

The committee will be formed at the AMATYC Annual Conference and a membership list attached at that time.

Action taken by the Delegate Assembly on: 12/14/24

____Approved	**____Postponed Until _____**	**____Withdrawn**
____Disapproved	**____Returned for Further Study**	**____Other**

President's Report
2024 AMATYC Delegate Assembly
George Hurlburt

I am pleased to report that AMATYC and its membership are advancing numerous initiatives that help AMATYC achieve its mission. Below are some highlights from 2024.

Atlanta Conference: I am very excited for the AMATYC's 50th Annual Conference in Atlanta. We have several special events, including a Past President Panel, a chance to hear about the history of AMATYC from those who lived it, and the Involvement Fair. I am hopeful that members will join us there as the city has much to offer. The delegate assembly is considered part of our conference proceedings and is being held virtually on Saturday, December 14th. The conference committee, as well as the local events committee, has worked hard to produce a wonderful conference opportunity, November 14 – 17th. I want to thank Turi Suski, Michael Pemberton, Julie Gunkelman, Nathalie Vega-Rhodes, Crystal Wiggins, and Todd Stein and all of the members of the local events committee for all their efforts in creating a wonderful conference experience.

Fiscal Issues: The organization continues to face financial challenges. Membership and conference attendance has not bounced back as quickly as hoped, causing AMATYC to dip into its reserves. These reserved funds were saved by previous Boards and has allowed AMATYC to weather the challenges of navigating through a global pandemic. AMATYC has had to use its reserve funds to cover operating expenses. In 2024, $80,000 of AMATYC's reserve funds were used to cover these expenses. More funds may need to be transferred for expenses through the end of the year. The Board continues to look for ways for the organization to save money. For example, travel for the Executive Director was cut for 2024 and the Spring Board Meeting will be held virtually, creating substantial savings for the organization.

Board Initiatives: The Executive Board took on two major initiatives this year. First, recognizing that our website and member database were not up to current standards, we conducted a search to partner with a new company. Our first round of interviews included more than 20 companies. Through three rounds of interviews, we narrowed it down and have partnered with Brynk. Look forward to a fresh website in 2025 and improved communications through our new member database.

Secondly, Executive Director Anne Dudley announced her retirement effective April 1, 2025, causing the Executive Board to conduct a search for a new Executive Director. We have interviewed four excellent candidates for the position, however, as of the writing of this letter, we have not chosen our next ED.

Monthly Meetings: The Executive Board has continued having two-hour monthly meetings in months where SPO, SBM, or FBM *are not* scheduled, we also do not meet in December. These

meetings have been successful and provided the board with the opportunity to be more responsive to the needs of AMATYC.

Grants: AMATYC continues to support the research efforts of its members. So far this year, AMATYC has provided Level 1 and Level 2 support to grants submitted to the National Science Foundation.

AMATYC currently has two Level 2 NSF-funded projects. The *Teaching for PROWESS* (TfP) project is a five-year NSF grant of $1.8 million focusing on improving student success through active learning and on making systemic changes in mathematics education in the community college following the guidelines of the IMPACT document and is in its fourth year. AMATYC members are encouraged to consider hosting a summer workshop offered by this project.. Additionally, AMATYC received a grant titled *Two-Year College Data Science Initiative* which hosted a workshop in June for two-year college faculty working to develop data science programs at their institutions.

Collaborations: AMATYC continues to enjoy numerous partnerships with other national organizations and entities. AMATYC funds presidential exchanges with the MAA, NCTM, NCSM, AMTE, NOSS, and TODOS. AMATYC partners with the ASA and JCW on joint committees and with the ASA and the MAA on joint webinars. AMATYC continues to participate as one of 19 member-organizations on the Conference Board of the Mathematical Sciences (CBMS). Participation in CBMS has created closer relationships with other mathematics-focused organizations such that we are able to explore new opportunities for collaboration.

Thank you: I want to thank Anne Dudley, Executive Director, the AMATYC Office, the 2024-2025 AMATYC Executive Board, and Turi Suski, Conference Coordinator, for all their work this year. You made my job much easier.

AMATYC

Balance Sheet

December 31, 2023

ASSETS

Current Assets			
1030	Cadence Bank Checking	9,493.84	
1035	Bank of America Checking	86,000.00	
1060	Accounts Receivable	184,464.97	
1091	Merrill Lynch - Fund 1 Stock	1,390,132.93	
1097	AMATYC Foundation Investments	599,069.60	
	Total Current Assets		2,269,161.34
Other Assets			
1105	Prepaid Conference Expense	9,198.40	
1106	Prepaid Expense	32,177.90	
1108	Prepaid Insurance	5,927.84	
1180	Computer Equipment	16,102.67	
1220	Office Furniture	899.98	
1230	Accumulated Depreciation	(14,844.39)	
	Total Other Assets		49,462.40
	Total Assets		2,318,623.74

LIABILITIES AND NET ASSETS

Liabilities			
1330	Prepaid Membership Income	19,129.00	
1335	Prepaid Income	3,500.00	
1340	Accounts Payable	170,824.22	
1360	College Math Journal	165.00	
1370	Primus Journal	544.00	
	Total Liabilities		194,162.22
Net Assets			
1500	Net Assets	1,513,925.84	
Net Assets: With Donor Restriction			
1505	Other Foundation	264,010.11	
1506	Endowments	289,801.82	
	Change In Net Assets	56,723.75	
	Total Net Assets		2,124,461.52
	Total Liabilities & Net Assets		2,318,623.74

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
INCOME				
MEMBERSHIP DUES INCOME				
1610	Individual Member Dues	85,036.50	135,100.00	50,063.50
1620	Individual Membership Refund	0.00	0.00	0.00
1625	Adjunct Membership Dues	2,107.00	5,335.00	3,228.00
1630	Retired Membership	2,597.00	2,910.00	313.00
1635	Adjunct Membership Dues Refund	0.00	0.00	0.00
1640	Life Membership Dues	7,840.00	9,620.00	1,780.00
1645	Discount/coupon Membership Due	(980.00)	(600.00)	380.00
1650	Associate Membership Dues	450.00	750.00	300.00
1655	WebScription	125.00	0.00	(125.00)
1670	Institutional Membership Dues	61,434.00	76,024.00	14,590.00
1680	Institutional Member Refund	0.00	0.00	0.00
1700	Library Membership Dues	784.00	2,123.00	1,339.00
1710	Library Subscriptions Refund	0.00	0.00	0.00
	TOTAL MEMBERSHIP DUES INCOME	159,393.50	231,262.00	71,868.50
INVESTMENT INCOME				
1740	CD Interest	0.00	0.00	0.00
1742	Investmen-Unrealized gain/loss	157,458.81	0.00	(157,458.81)
1743	Investment Income	45,635.83	76,920.00	31,284.17
1745	Interest Inc ACCCESS Grant	0.00	0.00	0.00
1748	Interest Inc. NSF Grant	0.00	0.00	0.00
1750	Interest Income Checking	0.00	150.00	150.00
1755	Interest Inc. Life Mbr Fund	0.00	0.00	0.00
1760	MMF Dividends	0.00	0.00	0.00
	TOTAL INVESTMENT INCOME	203,094.64	77,070.00	(126,024.64)
OTHER INCOME				
1800	Educator Advertising	0.00	1,000.00	1,000.00
1805	Educator Advertising Refund	0.00	0.00	0.00
1810	Discount - Educator Adver.	0.00	0.00	0.00
1815	Finance Charges - Educator	0.00	0.00	0.00
1860	Other Advertising Income	600.00	3,000.00	2,400.00
1862	Webinar Sponsorship	0.00	0.00	0.00
1865	Corporate Partnership	6,400.00	8,000.00	1,600.00
1873	NSF Grants/Indirect Cost	9,330.41	0.00	(9,330.41)
1910	Grants	524,168.43	10,000.00	(514,168.43)
1920	Donations/Contributions	10,000.00	10,000.00	0.00
1940	Miscellaneous Income	0.00	0.00	0.00
1945	Online Store Income	108.91	0.00	(108.91)
1950	Student Math League	3,030.00	3,850.00	820.00
1960	Student Research League	460.00	700.00	240.00
	TOTAL OTHER INCOME	554,097.75	36,550.00	(517,547.75)
CONFERENCE INCOME				
2030	Conference Registration	262,158.00	365,760.00	103,602.00
2031	Virtual Conference Reg	0.00	0.00	0.00
2035	Discount - FTA Conf. Reg	(3,150.00)	(5,000.00)	(1,850.00)
2040	Conference Registration Refund	(4,774.00)	0.00	4,774.00
2060	Exhibitors	36,633.00	57,925.00	21,292.00
2065	Web Link	0.00	0.00	0.00
2070	Commercial Presentations	3,000.00	12,000.00	9,000.00
2075	Exhibitor PP / Focus Groups	200.00	2,400.00	2,200.00
2080	Exhibitor Refund	0.00	0.00	0.00
2090	Commercial Presentation Refund	0.00	0.00	0.00
2120	Hospitality Donations	2,550.00	0.00	(2,550.00)
2140	Hospitality Refunds	0.00	0.00	0.00
2200	Symposia/Workshop	0.00	0.00	0.00
2280	Conference Program Advertising	0.00	0.00	0.00
2285	Discount - Conf. Program Adver	0.00	0.00	0.00
2286	Finance Charges - Conf Program	0.00	0.00	0.00
2320	Conf. Program Adver. Refunds	0.00	0.00	0.00
2325	Corporate Partnership	25,600.00	32,000.00	6,400.00
2330	In-The-Bag Advertising	2,400.00	1,200.00	(1,200.00)
2335	Conference Adv. Opportunities	1,500.00	4,500.00	3,000.00
2338	Merchandise (Conf Email List)	0.00	1,500.00	1,500.00
2340	Other Conference Income	21,270.00	52,033.00	30,763.00

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
2360	Other Conference Refunds	0.00	0.00	0.00
2370	Conference Donations	0.00	1,000.00	1,000.00
	TOTAL CONFERENCE INCOME	347,387.00	525,318.00	177,931.00
	PUBLICATIONS INCOME			
2440	Labels Non-College	985.68	0.00	(985.68)
2460	Labels College	0.00	0.00	0.00
2470	Books Non-College	0.00	0.00	0.00
	TOTAL PUBLICATIONS INCOME	985.68	0.00	(985.68)
	FOUNDATION INCOME			
2700	General Development	14,698.19	17,600.00	2,901.81
2701	MMF Earnings	0.00	0.00	0.00
2702	Investment Income	3,077.14	9,793.00	6,715.86
2703	Invest. Unrealized Gain/Loss	72,279.14	0.00	(72,279.14)
2704	Marketing Promotions	0.00	0.00	0.00
2705	Beyond Crossroads	0.00	0.00	0.00
2706	Endowment Investment Income	0.00	13,723.00	13,723.00
2707	Student Math League	360.00	100.00	(260.00)
2708	Student Research League	4,068.00	2,500.00	(1,568.00)
2709	Regional Scholarship	1,804.00	0.00	(1,804.00)
2710	AMATYC Project ACCCESS	5,004.00	5,000.00	(4.00)
2711	DataFest	1,000.00	0.00	(1,000.00)
2715	Developmental Mathematics	20.00	0.00	(20.00)
2717	Standards	135.00	100.00	(35.00)
2720	Grants	351.00	300.00	(51.00)
2721	Adjunct Conference Grant	411.00	0.00	(411.00)
2722	Presidential Student Scholar	0.00	0.00	0.00
2723	Leila & Simon Peskoff Award	2,050.00	1,960.00	(90.00)
2725	Research in Mathematics	110.00	300.00	190.00
2726	Margie Hobbs Award	1,411.00	1,000.00	(411.00)
2730	Endowment	7,604.40	0.00	(7,604.40)
2731	W Garner Pres Scholar Endow	600.00	0.00	(600.00)
2732	W Garner Memorial GP Endowment	0.00	0.00	0.00
	TOTAL FOUNDATION INCOME	114,982.87	52,376.00	(62,606.87)
	TOTAL INCOME	**1,379,941.44**	**922,576.00**	**(457,365.44)**
	COSTS AND EXPENSES			
	GENERAL OFFICE EXPENSES			
3030	Clerical & Casual Labor	0.00	0.00	0.00
3032	Clerical/Reassigned-President	21,657.00	15,000.00	(6,657.00)
3033	Clerical/Reassigned-Pres-Elect	0.00	6,000.00	6,000.00
3034	Clerical/Reassigned-Past Presi	3,000.00	6,000.00	3,000.00
3035	Contract Labor	85,431.68	83,069.00	(2,362.68)
3036	Staff Development	0.00	7,000.00	7,000.00
3037	Executive Director Salary	27,000.00	27,000.00	0.00
3038	Executive Director - Travel	6,197.89	7,000.00	802.11
3040	Reassigned Time - Treasurer	0.00	3,000.00	3,000.00
3060	Accounting Expense	7,000.00	8,000.00	1,000.00
3065	Servicemark Fee	0.00	0.00	0.00
3070	Consulting Fees	0.00	0.00	0.00
3080	Investment Fee	0.00	0.00	0.00
3090	Postage & Delivery	846.57	950.00	103.43
3110	Telephone	0.00	2,160.00	2,160.00
3130	Transportation	0.00	150.00	150.00
3150	Stationery & Forms	122.88	1,100.00	977.12
3170	Office Supplies	1,564.22	2,650.00	1,085.78
3190	Duplication	0.73	400.00	399.27
3200	Membership Services	0.00	1,000.00	1,000.00
3205	Payroll Taxes	2,065.56	3,000.00	934.44
3206	Payroll Preparation Charges	1,809.00	1,464.00	(345.00)
3210	Bank Service Charge	70.00	100.00	30.00
3212	Credit Card Services	6,601.87	7,740.00	1,138.13
3215	Miscellaneous Service Charges	182.35	200.00	17.65
3220	Returned Checks	0.00	100.00	100.00
3230	Library & Subscriptions	0.00	100.00	100.00
3260	Computer Soft, Hard &Supplies	1,443.74	3,500.00	2,056.26

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
3275	Bad Debt Expense	0.00	0.00	0.00
3280	Depreciation Expense	1,312.45	3,500.00	2,187.55
3320	Licensing Fees	260.00	500.00	240.00
3360	Other General Office	134.23	300.00	165.77
3365	Online Database	14,430.63	13,032.00	(1,398.63)
3370	Software Annual Fees	4,214.00	4,695.00	481.00
3380	Computer Ins/Security	0.00	0.00	0.00
3382	Gen Liability Insurance	10,669.00	12,000.00	1,331.00
3383	Workers Compensation Insurance	1,399.81	500.00	(899.81)
3385	STCC Admin. Services	10,000.00	10,000.00	0.00
3390	Washington Office Space	0.00	0.00	0.00
3395	Awards (Plaques)	956.00	1,300.00	344.00
3400	Postage - STCC	0.00	0.00	0.00
3405	Duplication - STCC	0.00	0.00	0.00
3410	Telephone - STCC	0.00	0.00	0.00
3415	Rent Expense - STCC	10,000.00	10,000.00	0.00
	TOTAL GENERAL OFFICE EXPENSE	218,369.61	242,510.00	24,140.39
ANNUAL CONFERENCE				
GENERAL CONF. PLANNING				
3440	Advance Planning Visit	2,463.24	3,500.00	1,036.76
3482	Site Selection Visits	0.00	0.00	0.00
3520	Telephone	0.00	0.00	0.00
3530	Postage	0.00	50.00	50.00
3535	Duplication	0.00	50.00	50.00
3540	Supplies	0.00	300.00	300.00
3550	Conference Marketing	728.48	750.00	21.52
3555	Conference Logo Design	375.00	375.00	0.00
3560	Program/Presider Meeting	4,325.20	2,400.00	(1,925.20)
3570	Exhibit Marketing	0.00	5,500.00	5,500.00
3575	Conference Enhancements	0.00	0.00	0.00
3580	Conference Coordinator	0.00	2,000.00	2,000.00
3595	Conf. Planning Portion of SBM	0.00	0.00	0.00
	TOTAL GEN CONF PLANNING EXPENSE	7,891.92	14,925.00	7,033.08
GEN CONFERENCE EVENT				
3665	Credit Card Services	15,404.35	18,060.00	2,655.65
3670	Conference Insurance	2,057.22	2,000.00	(57.22)
3680	Supplies	561.99	1,000.00	438.01
3700	Postage & Delivery	70.26	75.00	4.74
3705	Office Shipping	2,699.08	3,000.00	300.92
3720	Duplication	0.00	400.00	400.00
3730	Conference Reassigned Time	15,000.00	18,000.00	3,000.00
3740	Transportation	21,450.21	27,000.00	5,549.79
3745	Anets	0.00	0.00	0.00
3750	Clerical and Casual Labor	0.00	500.00	500.00
3760	Contract Labor (Conference)	158,474.65	154,270.00	(4,204.65)
3780	Program Advertising	0.00	0.00	0.00
3800	Lodging	16,972.63	30,343.00	13,370.37
3840	Food	1,090.00	6,150.00	5,060.00
3845	Telephone (Board/Staff)	0.00	200.00	200.00
3860	Friday Food Event	29,840.84	46,575.00	16,734.16
3900	Saturday Breakfast	28,413.39	45,000.00	16,586.61
3905	Leadership Dinner	4,232.07	4,500.00	267.93
3910	Local Emphasis	2,950.00	3,000.00	50.00
3915	ACCCESS Food	0.00	0.00	0.00
3960	Affiliate Pres Luncheon	2,655.31	3,300.00	644.69
3965	Other Food & Refreshments	0.00	1,500.00	1,500.00
	TOTAL GEN CONF EVENT EXPENSE	301,872.00	364,873.00	63,001.00
CONFERENCE PUBLICATIONS				
4030	Advertising/Exhibitor Folder	0.00	250.00	250.00
4040	Dec Flyer - Printing	475.00	700.00	225.00
4050	Dec Flyer - Postage	997.29	1,400.00	402.71
4060	Miniprograms - Printing	389.00	700.00	311.00
4070	Postage for Miniprogram	936.56	1,400.00	463.44
4080	Conference Programs	0.00	1,500.00	1,500.00
4085	Conference Daily Update	0.00	0.00	0.00

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
4090	April Flyer's Printing	986.00	1,300.00	314.00
4095	April Flyer's Postage	641.75	1,600.00	958.25
	TOTAL CONF PUBLICATIONS EXPENSE	4,425.60	8,850.00	4,424.40
ON-SITE EXPENSES				
4100	Speaker Fees/Honoraria	3,500.00	4,300.00	800.00
4120	Conference Space	13,577.00	0.00	(13,577.00)
4160	Audio Visual/Computer Rental	67,073.85	70,000.00	2,926.15
4162	Computers/Email Access	8,500.75	10,000.00	1,499.25
4165	Internet - Registration	538.50	4,000.00	3,461.50
4200	Other Rentals	0.00	0.00	0.00
4240	Registration Materials	1,297.04	2,000.00	702.96
4250	Registration Equipment	11,671.43	11,000.00	(671.43)
4260	Conference App	3,149.20	3,149.20	0.00
4280	Registration Workers (Temps)	1,470.00	4,000.00	2,530.00
4300	Security Guards	1,165.00	4,000.00	2,835.00
4310	Prof. Conf. Planning Org.	11,556.82	9,000.00	(2,556.82)
4315	Appreciation Reception	0.00	750.00	750.00
4320	Other Labor	1,500.00	1,200.00	(300.00)
4500	Symposia	0.00	0.00	0.00
4540	Hospitality	2,950.65	1,200.00	(1,750.65)
4600	Exhibitor's Refreshments	1,376.45	1,500.00	123.55
4620	Photography	989.75	1,000.00	10.25
4640	Exposition Services	27,541.48	25,000.00	(2,541.48)
4660	Shuttle Bus, Trans, & Parking	0.00	0.00	0.00
4700	Award Expenses	134.00	250.00	116.00
4740	Signs/Posters	0.00	0.00	0.00
4765	Online Store Expenses	0.00	0.00	0.00
4780	Other Conf Expense	5,330.19	7,900.00	2,569.81
	TOTAL ON-SITE EXPENSES	163,322.11	160,249.20	(3,072.91)
	TOTAL ANNUAL CONF EXPENSE	477,511.63	548,897.20	71,385.57
STRATEGIC PLANNING/ORIENTATION				
4940	Transportation	0.00	0.00	0.00
4960	Lodging	0.00	0.00	0.00
4980	Food	0.00	0.00	0.00
4990	Other SPOM	0.00	0.00	0.00
	TOTAL SPO MEETING EXPENSE	0.00	0.00	0.00
SPRING OFFICERS' MEETING				
5040	Transportation	0.00	0.00	0.00
5060	Lodging	0.00	0.00	0.00
5080	Food	0.00	0.00	0.00
5120	Other SOM	0.00	0.00	0.00
	TOTAL SPRING OFFICERS' MTG EXPENSE	0.00	0.00	0.00
PUBLICATIONS				
THE MathAMATYC EDUCATOR				
5180	Edit	0.00	320.00	320.00
5182	Design	0.00	0.00	0.00
5185	Reassigned Time	0.00	0.00	0.00
5200	Printing	24,477.62	18,000.00	(6,477.62)
5220	Shipping	7,429.95	7,000.00	(429.95)
	TOTAL EDUCATOR EXPENSES	31,907.57	25,320.00	(6,587.57)
THE NEWSLETTER				
5280	Edit & Design	0.00	0.00	0.00
5300	Printing	6,643.00	12,000.00	5,357.00
5320	Shipping	4,901.42	5,000.00	98.58
5340	Other Newsletter	0.00	0.00	0.00
	TOTAL NEWSLETTER EXPENSES	11,544.42	17,000.00	5,455.58
OTHER PUBLICATIONS				

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
5380	Edit & Design	0.00	0.00	0.00
5400	Printing	0.00	0.00	0.00
5420	Shipping	0.00	0.00	0.00
5440	Other	0.00	0.00	0.00
	TOTAL OTHER PUBLICATIONS EXPENSE	0.00	0.00	0.00
	TOTAL PUBLICATIONS EXPENSE	43,451.99	42,320.00	(1,131.99)
BEYOND CROSSROADS				
5450	Postage	0.00	0.00	0.00
5452	Duplication	0.00	0.00	0.00
5455	Travel	0.00	0.00	0.00
5460	Prizes	0.00	0.00	0.00
5465	AV Equipment Rental	0.00	0.00	0.00
5470	Preparation of CD	0.00	0.00	0.00
	TOTAL BEYOND CROSSROADS	0.00	0.00	0.00
COMMITTEES & SUMMER INSTITUTE				
5491	Developmental Mathematics	0.00	0.00	0.00
5492	Teacher Preparation	0.00	0.00	0.00
5493	Mathematic Intensive/Coll Math	0.00	0.00	0.00
5494	Math and Its Applic for Career	0.00	0.00	0.00
5495	Innovative Teaching & Learning	0.00	0.00	0.00
5496	Emerging Issues	0.00	0.00	0.00
5497	Statistics	0.00	0.00	0.00
5498	RMETYC Committee	0.00	0.00	0.00
5499	Equity	0.00	0.00	0.00
5500	Nominating/Election	0.00	0.00	0.00
5520	Foundation/Developmental Math	0.00	0.00	0.00
5540	Technology in Math Education	0.00	0.00	0.00
5545	Web Site Coordinator	0.00	250.00	250.00
5550	Webinars	100.00	1,000.00	900.00
5560	Equal Opportunity in Math	0.00	0.00	0.00
5580	Tech Mathematics/AAS Program	0.00	0.00	0.00
5590	Professional Dev. Coordinator	0.00	200.00	200.00
5600	Membership Committee	0.00	500.00	500.00
5620	Constitution Committee	0.00	0.00	0.00
5640	ME Awards	0.00	100.00	100.00
5645	TE Awards	92.00	0.00	(92.00)
5660	Placement and Assessment	0.00	0.00	0.00
5670	Grants Committee	0.00	0.00	0.00
5675	Crossroads Digital	0.00	0.00	0.00
5680	Student Math League	0.00	0.00	0.00
5685	Student Math League Awards	1,748.00	2,000.00	252.00
5687	Student Research League Awards	2,818.50	5,000.00	2,181.50
5690	Regional Meetings	0.00	0.00	0.00
5700	Summer Institute	0.00	0.00	0.00
5705	Traveling Workshops	0.00	0.00	0.00
5710	AMATYC History	0.00	0.00	0.00
5720	Grant Seed Fund	0.00	0.00	0.00
	TOTAL COMM & SUMM/INST EXPENSE	4,758.50	9,050.00	4,291.50
LIAISON				
5740	AACC Dues	0.00	0.00	0.00
5742	AACC Exhibit & Materials	0.00	0.00	0.00
5745	AACC Travel	0.00	0.00	0.00
5800	AMC	0.00	0.00	0.00
5810	Presidential Travel	0.00	0.00	0.00
5820	CBMS	4,356.20	3,900.00	(456.20)
5840	CSSP	0.00	0.00	0.00
5850	Triangle Coalition	0.00	0.00	0.00
5860	MAA	1,671.08	1,200.00	(471.08)
5865	NOSS	2,041.90	960.00	(1,081.90)
5870	Joint Committee for Women	0.00	0.00	0.00
5875	TODOS	2,046.48	800.00	(1,246.48)
5880	NCTM	3,892.26	2,100.00	(1,792.26)
5885	Mu Alpha Theta Liaison Travel	0.00	750.00	750.00
5890	Advertising	0.00	0.00	0.00

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
5900	Affiliate Org Grants	0.00	0.00	0.00
5905	Affiliate Scholarships	0.00	0.00	0.00
5910	Affiliate Services	689.71	1,000.00	310.29
5915	Affiliate Give-aways	1,088.29	9,000.00	7,911.71
5918	Student Scholarship	0.00	0.00	0.00
5920	State/Reg Affiliates	5,675.15	10,000.00	4,324.85
5930	National Init./Com. Relations	1,148.48	2,500.00	1,351.52
5940	Other Liaison	2,244.67	2,500.00	255.33
	TOTAL LIAISON EXPENSES	24,854.22	34,710.00	9,855.78
GRANT INDIRECT COST				
5980	Indirect Cost	(9,330.41)	(6,000.00)	3,330.41
	TOTAL GRANT INDIRECT COST EXPENSE	(9,330.41)	(6,000.00)	3,330.41
IMPACT				
6100	IMPACT	0.00	0.00	0.00
	TOTAL IMPACT EXPENSE	0.00	0.00	0.00
NSF GRANT - PROJECT SLOPE				
6210	Senior Personnel Salaries	0.00	0.00	0.00
6220	Other Personnel Salaries	0.00	0.00	0.00
6250	Travel	0.00	0.00	0.00
6260	Participant Support	0.00	0.00	0.00
6271	Materials and Supplies	0.00	0.00	0.00
6272	Publication/Dissemination	0.00	0.00	0.00
6273	Consultant Services	0.00	0.00	0.00
6274	Computer Services	0.00	0.00	0.00
6275	Subawards	0.00	0.00	0.00
6276	Other	0.00	0.00	0.00
6280	Indirect Cost	0.00	0.00	0.00
	TOTAL PROJECT SLOPE EXPENSES	0.00	0.00	0.00
NSF Grant - TfP				
6310	Senior Personnel Salaries	50,825.55	0.00	(50,825.55)
6315	Salaries & Wages	0.00	0.00	0.00
6320	Other Personnel Salaries	2,000.00	0.00	(2,000.00)
6330	Fringe Benefits	0.00	0.00	0.00
6340	Equipment	0.00	0.00	0.00
6345	Consultants	0.00	0.00	0.00
6350	Travel	21,775.65	0.00	(21,775.65)
6360	Participant Support	0.00	0.00	0.00
6365	Other	0.00	0.00	0.00
6370	Travel (Master Account)	0.00	0.00	0.00
6371	Materials and Supplies	1,478.95	0.00	(1,478.95)
6372	Publication/Dissemination	200.87	0.00	(200.87)
6373	Consultant Services	1,600.00	0.00	(1,600.00)
6374	Computer Services	4,738.02	0.00	(4,738.02)
6375	Subawards	385,935.05	0.00	(385,935.05)
6376	Other	653.38	0.00	(653.38)
6380	Indirect Costs	8,261.91	0.00	(8,261.91)
	TOTAL TfP EXPENSES	477,469.38	0.00	(477,469.38)
NSF GRANT - ACCESSIBILITY				
6400	Duplication	0.00	0.00	0.00
6405	Salaries/Honoraria	0.00	0.00	0.00
6410	Senior Personnel Salaries	0.00	0.00	0.00
6415	Duplication	0.00	0.00	0.00
6420	Other Personnel Salaries	1,000.00	0.00	(1,000.00)
6425	Postage & Delivery	0.00	0.00	0.00
6430	Fringe Benefits	0.00	0.00	0.00
6435	Transportation	0.00	0.00	0.00
6440	Equipment	0.00	0.00	0.00
6445	Food	0.00	0.00	0.00
6450	Travel	7,724.64	0.00	(7,724.64)
6455	Rental	0.00	0.00	0.00

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
6460	Participant Support	21,870.20	0.00	(21,870.20)
6471	Materials and Supplies	361.69	0.00	(361.69)
6472	Publication/Dissemination	0.00	0.00	0.00
6473	Consultant Services	9,250.00	0.00	(9,250.00)
6474	Computer Services	0.00	0.00	0.00
6476	Other	142.50	0.00	(142.50)
6480	Indirect Cost	100.00	0.00	(100.00)
	TOTAL ACCESSIBILITY EXPENSES	40,449.03	0.00	(40,449.03)
AMATYC PROJECT ACCCESS				
6505	Salaries/Honoraria	0.00	0.00	0.00
6510	Computer Supplies	0.00	0.00	0.00
6515	Duplication	0.00	0.00	0.00
6520	Supplies	0.00	0.00	0.00
6525	Postage & Delivery	0.00	0.00	0.00
6530	Lodging	9,913.96	0.00	(9,913.96)
6535	Transportation	0.00	0.00	0.00
6540	Telephone	0.00	0.00	0.00
6545	Food	3,008.04	0.00	(3,008.04)
6550	Meeting Space	0.00	0.00	0.00
6555	Rental	0.00	0.00	0.00
6560	Other	0.00	0.00	0.00
	TOTAL ACCCESS EXPENSES	12,922.00	0.00	(12,922.00)
PROJECT GAINS				
6810	AMATYC Membership	0.00	0.00	0.00
6820	Recruiting and Marketing	0.00	0.00	0.00
6830	Stipend	0.00	0.00	0.00
6840	Clerical	0.00	0.00	0.00
6850	Scholarships	0.00	0.00	0.00
	TOTAL ACCCESS EXPENSES	0.00	0.00	0.00
NSF GRANT - ACCCESS RESEARCH				
6910	Senior Personnel Salaries	0.00	0.00	0.00
6920	Other Personnel Salaries	0.00	0.00	0.00
6930	Fringe Benefits	0.00	0.00	0.00
6940	Equipment	0.00	0.00	0.00
6950	Travel	4,611.93	0.00	(4,611.93)
6960	Participant Support	0.00	0.00	0.00
6971	Materials and Supplies	0.00	0.00	0.00
6972	Publication/Dissemination	0.00	0.00	0.00
6973	Consultant Service	0.00	0.00	0.00
6974	Computer Services	0.00	0.00	0.00
6975	Subawards	0.00	0.00	0.00
6976	Other	0.00	0.00	0.00
6980	Indirect Cost	968.50	0.00	(968.50)
	TOTAL ACCCESS RESEARCH EXP	5,580.43	0.00	(5,580.43)
FOUNDATION EXPENSES				
GENERAL FOUNDATION				
7010	Clerical & Casual Labor	0.00	0.00	0.00
7015	President Funds	1,000.00	1,000.00	0.00
7018	Investment Fees	0.00	0.00	0.00
7020	Computer Supplies	0.00	0.00	0.00
7024	Opportunity Projects	5,061.36	4,500.00	(561.36)
7025	Grants	0.00	0.00	0.00
7030	Duplication	200.00	200.00	0.00
7040	Supplies	0.00	150.00	150.00
7045	Donor Recognition	0.00	0.00	0.00
7050	Postage & Delivery	7.40	100.00	92.60
7060	Telephone	0.00	0.00	0.00
7070	Transportation	0.00	0.00	0.00
7080	Lodging	0.00	0.00	0.00
7090	Food	0.00	0.00	0.00
7095	Other Expenses	497.98	500.00	2.02

AMATYC
Income Statement
For the Twelve Months Ending December 31, 2023

		Year to Date	Budget	Available Balance
	TOTAL GENERAL FOUNDATION EXPENSES	6,766.74	6,450.00	(316.74)
BEYOND CROSSROADS				
7110	Labor and Stipends	0.00	0.00	0.00
7130	Duplication	0.00	0.00	0.00
7140	Supplies	0.00	0.00	0.00
7150	Postage & Delivery	0.00	0.00	0.00
7155	Publication / Dissemination	0.00	0.00	0.00
7160	Telephone	0.00	0.00	0.00
7170	Travel	0.00	0.00	0.00
7180	Lodging	0.00	0.00	0.00
7190	Food	0.00	0.00	0.00
7195	Other	0.00	0.00	0.00
	TOTAL BEYOND CROSSROADS EXPENSE	0.00	0.00	0.00
PROJECT ACCCESS				
7260	Participant Support	9,276.34	30,500.00	21,223.66
7271	Materials & Supplies	0.00	0.00	0.00
7272	Publication/Dissemination	0.00	0.00	0.00
7273	Consultant Services	0.00	0.00	0.00
7274	Computer	0.00	0.00	0.00
7275	Subawards	0.00	0.00	0.00
7276	Other	0.00	0.00	0.00
	TOTAL PROJECT ACCCESS EXPENSE	9,276.34	30,500.00	21,223.66
OTHER FOUNDATION FUND EXPENSES				
7310	Student Math League	262.00	700.00	438.00
7320	Student Research League	2,985.00	2,500.00	(485.00)
7325	DataFest	971.23	0.00	(971.23)
7410	Summit	0.00	0.00	0.00
7510	Grants	0.00	3,000.00	3,000.00
7605	Regional Scholarship Program	2,460.00	3,280.00	820.00
7610	Presidential Student Scholarsh	2,000.00	2,000.00	0.00
7710	Leila & Simon Peskoff Award	1,960.00	1,960.00	0.00
7810	Margie Hobbs Award	500.00	500.00	0.00
	TOTAL OTHER FOUNDATION EXPENSE	11,138.23	13,940.00	2,801.77
	TOTAL FOUNDATION EXPENSE	27,181.31	50,890.00	23,708.69
	TOTAL COSTS AND EXPENSES	**1,323,217.69**	**922,377.20**	**(400,840.49)**
	Increase (Decrease) in Net Assets	**56,723.75**	**198.80**	**(56,524.95)**

AMATYC Foundation
2024 Delegate Assembly Report
Submitted by Laura Watkins
October 29, 2024

AMATYC Foundation Board Members: Judy Ackerman, Cheryl Cleaves, Ernie Danforth, Anne Dudley, Kyle Kundamol, Fred Peskoff, Dale Johanson, George Hurlburt, Laura Watkins (Chair)

The Foundation Board meets monthly via ZOOM. Here are some actions we have taken or items we have been working on in 2024:

- **Wanda Garner Presidential Student Scholarship (WGPSS):** The Foundation decided to award two $1000 scholarships this year. Nominations were due October 15. The awardees were randomly chosen at the October Foundation meeting. The awardees are Sean Aberin, nominated by Anne Edlin, and Lila Ablimit, nominated by Aisha Arroyo.

- **Leila & Simon Peskoff Award**: The Leila and Simon Peskoff award was awarded to Nolan Outlaw.

- **Hobbs Award**: Margie Hobbs award was awarded to Becky Groseth.

- **Regional Scholarships:** The Foundation agreed to fund an additional 8 Regional Scholarships for Atlanta, above the 8 supported by the Executive Board.

- **AMATYC Project ACCCESS**: The Foundation continues to budget annual financial support (about $12,000) to AMATYC Project ACCCESS fellows for conference housing and food.

- **Donations to the Foundation**: The 2023 fundraising drive raised $39,626,59.

History of Donations

Year	2022		2021		2020		2019		2018		2017	
	$	#	$	#	$	#	$	#	$	#	$	#
Total	35,562.98	311	23,145.14	217	$40,536	148	$28,475	314	$30,549	630	$33,375	537

2016		2015		2014	
$	#	$	#	$	#
$30,709	487	$28,843	575	$34,966	519

- **2024 Fundraising Campaign**: The Foundation has set the fundraising goal for this year to be $50,000 and has been a yearlong fund-raising campaign in 2024. The fundraising campaign started May 1st and each month the foundation has highlighted the variety of ways that the Foundation supports both faculty and students. We have been encouraging members to donate $50, or multiples of $50, for AMATY'C's 50th Anniversary, where anyone who gave $50 or more to AMATYC will be in a drawing for prizes. Every dollar makes a difference!

- **Newsletter Articles**: The Foundation submits one article for inclusion in each issue of the *AMATYC News.* The articles describe the work of the Foundation, highlighted the programs and awards funded by the Foundation, and encouraged monthly donations. Donors from the previous year are listed annually in the Fall issue.

- **Transfer of funds among the investment accounts**. Donations that will not be needed within 3 years are transferred to AMATYC's investment accounts. At the end of 2023, $16,460.18 was transferred into the Foundation investment fund in order to support future efforts of the AMATYC Foundation to support faculty and students.

Thanks to all donors for supporting members and the mission of AMATYC by contributing to the AMATYC Foundation!

AMATYC Mission, Vision, Values

AMATYC Mission Statement: The American Mathematical Association of Two-Year Colleges (AMATYC) mission is to provide high quality professional development, to build inclusive communities of scholars, and to collaborate with and advocate for all involved in mathematics education in the first two years of college. (Adopted by the Board January 2023)

AMATYC's Vision: To be the leading voice and resource for excellence and inclusion in the first two years of mathematics in colleges and universities. (Adopted by the Board January 2023)

AMATYC's Tagline: *Opening Doors Through Mathematics* (Adopted by the Board on June, 2016)

AMATYC's Core Values

Core Values represent core priorities, traits, or qualities in the organization's culture that are considered worthwhile. (Approved May 2023)

Core Value:	Operational Definition:
Excellence	Supporting the design and implementation of a quality educational experience in mathematics for students that uses practices proven effective by research.
Inclusivity	Providing a welcoming environment and ensuring full access to opportunities and resources for all students and faculty.
Community	Providing opportunities for networking, growth, and encouraging mutual respect for other mathematics professionals for the betterment of the mathematics teaching profession.
Responsiveness	Creating, developing, implementing, and redefining instructional strategies, curricula in mathematics, current technology, and classroom practices. Determine successful practices based on research of how students best learn mathematics and how faculty best teach mathematics.
Integrity	Safeguarding the qualities of honesty, sincerity, trustworthiness, global consciousness, and a code of sound moral professional principles.
Professional Development	Building expertise and exhibiting leadership in the teaching and learning of mathematics, enhancing personal growth, and improving teaching methods and effectiveness as an ongoing responsibility.

AMATYC Strategic Plan

AMATYC Strategic Plan 2024 - 2029

Approved May 2023

For all involved in mathematics education in the first two years of college, AMATYC will:

1. Provide Access to High Quality Professional Development
    a. Offer professional development via various modalities.
    b. Provide opportunities for reflection and gaining insights into effective practices for teaching mathematical concepts and pedagogical practices.
    c. Address the needs of and offer professional development appropriate for faculty at various stages of their career.

2. Build an Inclusive Environment within AMATYC and within the First Two Years of Mathematics Education
    a. Foster a climate where all feel welcome, valued, and included.
    b. Promote a diverse community of mathematics educators which recognizes and welcomes the unique contributions of all participants.
    c. Encourage and disseminate research focused on student learning for diverse learners.
    d. Extend opportunities for local and regional networking to those interested in mathematics in the first two years of college including enriching relationships with and providing support for AMATYC affiliate organizations.

3. Collaborate and Advocate Externally
    a. Expand the visibility of AMATYC, locally, nationally and internationally by strengthening collaborations with other organizations.
    b. Expand student access to mathematics and statistics, particularly students from under-represented groups.
    c. Communicate and disseminate the AMATYC Standards, AMATYC publications, and national initiatives.
    d. Support classroom research on teaching and learning.

4. Provide Resources for the Mathematics Community
    a. Propagate and facilitate the sharing of research-based teaching, learning practices, and assessment methods.
    b. Develop, update, and maintain position statements.
    c. Promote and develop current and relevant standards.
    d. Share tools for faculty that create a strong and relevant mathematics experience for all students, including successful curricular innovations.

Conference Site Selection

We did not site any new conference locations in 2024. It is anticipated that we will begin to site new locations in 2025.

Dates and locations for other future conferences are:
Reno, NV, November 13 – 16, 2025
Philadelphia, PA, November 19 – 22, 2026
Spokane, WA, November 11 – 14, 2027
Phoenix, AZ, November 9 – 12, 2028

AMATYC
50 YEARS OF IDEAS

Delegate Assembly Motion

To: AMATYC Delegate Assembly

Year: 2024

Subject: Update Article VII, Section 1 of the by-laws

Submitted by: Dale Johanson

Date Submitted: 10/16/24

Motion: That the AMATYC Delegate Assembly

approve the following changes to Article VII, Section1 of the by-laws, allowing the Delegate Assembly to be held virtually going forward, effective immediately.

Rationale:

The Delegate Assembly (DA) has been held virtually since 2020. This change will match practice with policy.
The Executive Board approves this motion as a virtual DA is more equitable, allowing people who cannot attend the conference able to serve as delegates. It also opens up more time slots for presentations at the conference.

Action taken by the Delegate Assembly on: 12/14/24

____**Approved**	____**Postponed Until** _____	____**Withdrawn**
____**Disapproved**	____**Returned for Further Study**	____**Other**

Marked-up Version

Article VII Delegate Assembly

Section 1 The association shall have an annual business meeting (Delegate Assembly) ~~in conjunction with its annual conference~~to be held virtually within two months of the closing of the conference.
Notice of the Delegate Assembly meeting shall be publicized in writing or electronically at least one month in advance.

Clean Version

Article VII Delegate Assembly

Section 1 The association shall have an annual business meeting (Delegate Assembly) to be held virtually within two months of the closing of the conference.
Notice of the Delegate Assembly meeting shall be publicized in writing or electronically at least one month in advance.

AMATYC
50 YEARS OF IDEAS

Delegate Assembly Motion

To: AMATYC Delegate Assembly

Year: 2024

Subject: New chapter of IMPACT

Submitted by: Mark A Earley

Date Submitted: 10/29/24

Motion: That the AMATYC Delegate Assembly

approve the new attached chapter of IMPACT effective immediately. This chapter will be published online once final editing is completed.

Rationale:

IMPACT (2018) includes support for faculty who teach mathematics and statistics in the first two years of college to increase students' PROWESS. Missing in IMPACT is support for faculty to create an environment where all students have access to high quality mathematics education in ways that maximize their individual potential. This new chapter, fully referenced, includes definitions, examples, and implementation suggestions for effectively working with our increasingly diverse student population. It will be a valuable addition to the current IMPACT document.

Action taken by the Delegate Assembly on: 12/14/24

____**Approved**	____**Postponed Until** _____	____**Withdrawn**
____**Disapproved**	____**Returned for Further Study**	____**Other**

Chapter

Infusing Equity and Inclusion in the Mathematics Classroom

A garden's beauty never lies in one flower.

~Matshona Dhliwayo

College mathematics classrooms aspire to be a place where the pursuit of knowledge knows no bounds. Here, students from diverse backgrounds come together with unique dreams, abilities, and experiences. Within this crucible of learning, we find a microcosm of our society, rich in its diversity yet burdened by the disparities that often afflict it (U.S. DoE, 2016). In today's twenty-first-century world, the demand for mathematical literacy and critical thinking skills is more crucial than ever (Rizki & Priatna, 2019), necessitating educators ensure accessibility for all. "The American Mathematical Association of Two-Year Colleges' (AMATYC's) core values acknowledge the rights of all students to have access to high quality mathematics education in ways that maximize their individual potential" (AMATYC, 2020, para. 1). Curriculum, pedagogy, and classroom interactions impact all students.

> Faculty's curricular decisions and pedagogy, including their individual interactions with students, can foster inclusive climates. Also, students report it is important that they see themselves reflected in the faculty and curriculum to which they are exposed to create a sense of belonging and inclusiveness. Research suggests that greater representation of underrepresented groups among faculty may increase students' sense of academic validation. (U.S. DoE, 2016, p. 37)

The purpose of this chapter is to help students, faculty, and institutions prioritize the recognition and celebration of each student's unique identity, including age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, citizenship status, national origin, pregnancy, race, religion, sex, sexual orientation, socio-economic status, or protected veteran status. This begins with creating an environment where everyone feels valued and understood, and that they belong. Faculty and staff need

ongoing training and professional development opportunities around recognizing and addressing their own implicit biases, learning to assist students who experience stereotype threat and microaggressions, and learning how to recognize microaggressions and when and how to address them. In addition, faculty can foster diversity, inclusion, and a sense of belonging in college and in the mathematics classroom by engaging in teaching and learning methods, such as active and collaborative learning. Designing courses using elements of universal design can reduce the need for individualized accommodations and improve the learning experience of all students. Institutions should support faculty and staff in engaging in these activities, provide ample opportunities for training and professional development, and encourage an attitude of exploration with a willingness to question current policies and procedures and an openness to trying new strategies. AMATYC actively encourages the participation of all individuals in decision-making processes and activities, recognizing the importance of diverse voices and viewpoints. Every student is a valued and equal member of the classroom community. Together, we will uncover the power of mathematics as a tool for empowerment, social justice, and individual growth, setting the stage for a more equitable future for all within our college mathematics classrooms.

Sense of Belonging

Faculty who belong to historically marginalized groups may join a department or an organization, but without a sense of belonging may choose to move on. The same is true for students. Lewis et al. (2016) define academic belonging as "the extent to which individuals feel like a valued, accepted, and legitimate member in their academic domain" (p. xx) and go on to state, "Belonging has long been recognized as an innate human need and an important driver of physical and psychological well-being" (p. 421).This is particularly evident in the STEM disciplines, where the higher up the course is, the less diversity we see. A lack of sense of belonging is probably a significant factor in the underrepresentation of women in science (Lewis et al., 2016; Master & Meltzoff, 2020; Rainey et al., 2018). Mathematics is frequently perceived as a challenging subject and has been historically represented as a gatekeeper to STEM disciplines; there may be no discipline more in need of creating a strong sense of belonging for students and faculty than mathematics. Consider the following contrasting stories of two students in a precalculus course.

> *Takei is a student in his fourth week of a precalculus class. Takei's class does a lot of group work, so he has gotten to know several classmates over the past four weeks as they have worked together on various assignments. At the start of the semester, Takei's instructor had the class set ground rules for group work that included valuing all contributions and supporting one another's learning. Takei's instructor knows his name and acknowledges his contributions to class discussions in ways that leave him feeling motivated to learn more. Takei enjoys coming to class because it is a positive, comfortable environment.*
>
> *Nichelle is also a student in her fourth week of precalculus class, but Nichelle's class does not include assignments that encourage her to get to know her fellow students. As a first-semester dual enrollment student, Nichelle is not used to taking college classes and feels a little ill at ease. In the first week of class, the person next to her whispered "how*

stupid" under their breath as a student across the room offered an incorrect answer in a class discussion; this left Nichelle a bit afraid of what people might think of her contributions when she spoke up in class. Nichelle does not know of any other dual enrollment students in the course and has no reason to believe that the instructor knows her name. Nichelle feels anxiety going to class because she feels like an outsider in the environment.

Takei and Nichelle are at opposite ends of the spectrum on a sense of belonging scale. Sense of belonging means how much a person feels like they fit in and are part of a college community, which applies to instructors and students alike in different contexts. Belonging in a college community is fostered by feeling accepted, respected, included, and supported by others. From a student perspective, there are many ways in which faculty can support the development of a sense of belonging which will be addressed below.

Faculty perspective

On the classroom level, a student's sense of belonging is integrally linked to the community environment, and faculty can make a difference in helping (or hurting) the student's abilities to develop a sense of belonging. Four basic strategies for developing a sense of belonging in students include:

- Showing clear and multiple avenues for support..
- Investing time and energy in helping students develop relationships with peers.
- Utilizing active learning strategies and inclusive practices (being mindful that moving away from lecture can mean moving our marginalized students into unsafe spaces). (Concrete examples can be found at https://www.ams.org/publications/journals/notices/201702/rnoti-p124.pdf and https://www.usma.edu/sites/default/files/inline-images/centers_research/center_for_teaching_excellence/PDFs/mtp_project_papers/Gatewood_13.pdf).
- Giving students structure to think about how to adapt to the college environment.

Educators play a pivotal role in shaping a sense of belonging in educational institutions, inside and outside of their classroom. By promoting empathy, acceptance, and mutual respect, faculty convey the importance of the other person. This sense of belonging, whether in students or with colleagues, contributes to increased engagement and a positive outlook towards the importance of their work. For students that can mean positive social and emotional development and increased academic success. For communities of faculty, we are helping to create more inclusive and equitable spaces, where we are enriched by the diversity of the people in our communities. A sense of belonging for faculty is just as important as it is for students, impacting educators' professional efficacy, job satisfaction, and overall well-being. As colleagues, we need to attend to the ways in which we support one another and develop relationships within our communities (departments, institutions, and organizations).

Institutional perspective

At the institution level, faculty are at the heart of student success. They are directly responsible for curriculum development, delivering content, and connecting to students. Two-year college

students face distinct challenges compared to their counterparts at four-year institutions, including limited on-campus living options, less involvement in college clubs, and greater non-education-related responsibilities, all of which leads to lower levels of belonging. It is the institution's responsibility to support faculty with the opportunities and training to help them better develop curriculum and standard practices that elevate historically marginalized groups in the college community and in mathematics.

Finally, hiring is an important area for institutions to focus on. Research indicates that greater representation of underrepresented groups among faculty may increase students' sense of academic validation. (U.S. DoE, 2016, p. 37) When the demographics of the faculty do not mirror the demographics of the community being served, students from underrepresented groups experience a lowered sense of belonging. This is a problem the institution should intentionally address. Students gain unique perspectives on mathematics, classroom interactions, college, and life from diverse identities. Diversity, equity, inclusion, and accessibility should be critical aspects of any hiring process, retention policy, professional development program, workload, and staffing policy.

A sense of belonging is deeply personal. No institution or single person can control whether another human feels like they belong somewhere, but we, individually and collectively, can make intentional choices to try to let others know they do belong and they are important.

Stereotype Threat, Implicit Bias, and Microaggressions

Most instructors go into the teaching profession because of a love for their discipline, coupled with a strong desire to help others or make a difference. However, barriers to their students' success can be created by implicit biases, microaggressions, and stereotype threat. Unfortunately, many instructors have received little to no training in how to engage in such conversations, and the student may experience their awkwardness and hesitation as a microaggression. How do stereotype threat, implicit biases, and microaggressions affect the classroom dynamic and campus climate for faculty and students?

Stereotype Threat and Implicit Bias

Stereotype threat can preoccupy our students' brains to the point that it reduces their focus and negatively impacts academic performance, leading to uncertainty about belonging in the mathematics classroom or even in college. Students may become hypervigilant, searching the environment for signs they do, or do not, belong, robbing them of cognitive resources that could be better employed in learning. When students are confident they belong, they focus better on the academic work, build better relationships, and engage more fully in the course and college.

> *Imelda is the only student who identifies as female in her calculus class. She is very conscious of being the only female and worries that every time she asks a question, other students and the instructor see her as the representative of all women.*

To address stereotype threat, instructors should educate themselves about their own implicit biases. Education about and exposure to theories about both implicit bias and microaggressions can help faculty to recognize them when they occur and to then formulate appropriate actions. One of the most well-known instruments for assessing implicit biases is the Implicit Association Test hosted by Harvard, https://implicit.harvard.edu/implicit/research/. There are 16 different tests on topics such as gender-career, transgender, disability, age, and race, which reveal the ease with which your brain makes associations. These can reveal biases towards associating White

faces with good things and Black faces with negative things, for example. When faculty are tired, stressed, pressed for time, or have incomplete or ambiguous information about a situation, these biases can assert themselves. For example, an implicit belief that women are not good at mathematics may lead to seeing more errors in a woman's work or in discounting the correctness of an argument. Situations that unexpectedly arise in the classroom can lead to these kinds of influences. Taking a moment to breathe and think can help faculty keep from being as influenced by implicit biases.

Addressing implicit biases and microaggressions is important work for faculty; these subtler forms of prejudice and bias may be more damaging to recipients than more overt forms of prejudice and bias (Solórzano et al., 2000; Sue, 2010), leading to disengagement, anxiety, frustration, self-doubt, symptoms of PTSD, and emotional distress (Casanova et al., 2018; Solórzano et al., 2000; Sue, 2010; Sue et al., 2007; Williams et al., 2020). Students who experience STEM-related stereotyping or biases may question whether they belong in a STEM field, doubt their own abilities, and ultimately choose not to pursue that path (Grossman & Porche, 2014). Consider the following methods to counteract implicit biases:

- Meaningful interaction with people whose identities differ from one's own (Staats, 2015/2016).
- Exposure to counter-stereotypical examples, such as posters of Black or LGBTQ mathematicians.
- Disaggregating success, failure, and withdrawal rates by race/ethnicity and/or gender.

Microaggressions

Individual implicit biases often underlie microaggressions, which draw attention away from the beliefs of the individual and, instead, focus it on the combined effects of many experiences and their connection to systemic injustice (Applebaum, 2019). The effect of microaggressions is cumulative; it can be compared to a thousand tiny stings or mosquito bites (Ogunyemi et al., 2020; Solórzano et al., 2000; Sue, 2010). Microaggressions include microassaults, microinsults, and microinvalidations (Sue et al., 2007).

Microaggression Examples

- ***Microassault***: asking a prospective female math major if choosing that major would have a negative impact on the student's child, the implication being that one cannot be both a good mother and a mathematician.
- ***Microinsults***:
    - Black people are too loud and boisterous.
    - Asians are too quiet (Ogunyemi et al., 2020).
    - Failing to call on female students or underrepresented minorities in class (lack of intelligence or competence).
- ***Microinvalidation***:
    - An instructor who claims to be "racially color blind."
    - Expressing surprise that Latina/o or Asian students speak "good English" or are "from here" (Ogunyemi et al., 2020).

These “subtle snubs” (Sue et al., 2007, p. 273) are often dismissed or smoothed over as inconsequential, unintentional, and therefore undamaging, and harmless. In most cases, the perpetrator is interpreting the situation as a single instance, whereas the recipient is interpreting the situation as one of many experiences of a similar nature.

Bias in the classroom is more likely to be subtle than overt, and students generally perceive more bias than do instructors (Ogunyemi et al., 2020). The effect is often disengagement, frustration, and exhaustion, which can further damage academic performance (Sue et al., 2019). Students may end up feeling that they do not belong and that less is expected of them than of members of the dominant group. Microaggressions can come from all directions. Studies have shown that students tend to think that faculty of color are less competent and question their authority and grading schemes more frequently than faculty from dominant groups. This same dynamic applies to female faculty when compared to male faculty. To address bias in the classroom:

- Directly confront bias, when appropriate.
- Facilitate group conversation, validating the emotional responses of students.
- Model “openness and honesty in discussing [one’s] own biases, weaknesses, or disruptive personal feelings” (Ogunyemi et al. 2020, p. 108).

There are various strategies to address microaggressions. Consider the following:

- ***Confront the microaggression.***
    - “I know you meant well, but that really hurts.”
    - “I know you meant it as a joke, but it really wasn’t funny.”
    - “I know you like to kid around a lot but think how your words affect others.”
    - “I know you meant it to be funny, but that stereotype is no joke” (Sue et al., 2019, p. 139).
- ***Make the invisible visible.***
    - “I don’t agree with what you just said.”
    - “That’s not how I view it” (Sue et al., 2019, p. 136).
    - “Are you saying that Black students are not good at problem solving?”
- ***Disarm the microaggression.***
    - Nonverbal communication: lifting your eyebrows, frowning, looking down or away, or shaking your head.
    - “Whoa, let’s not go there. Maybe we should focus on the task at hand” (Sue et al., 2019, p. 137).
- ***Educate the perpetrator.***
    - “I know you didn’t realize this, but that comment you made was demeaning to X because not all Arab Americans are a threat to national security.”
    - “I know you really care about representing everyone on campus and being a good X, but acting in this way really undermines your intentions to be inclusive” (Sue et al., 2019, p. 137).

    - "That is a negative stereotype of African Americans. Did you know they also want to be an engineer just like you? You should talk to them; you have a lot in common."
- ***Seek external reinforcement or support*** (Sue et al., 2019, p. 128).

One of the difficulties in addressing microaggressions is that a strategy might be effective and mitigate some of the negative effects for some groups (e.g., political activism for Latino/a students) and worsen the situation and effects for other groups (e.g., political activism for Black students) (Ogunyemi et al., 2020). Nevertheless, growing evidence suggests that more proactive strategies, such as problem solving and discussing the situation with supportive others, may help students better respond to future microaggressions. Disengaging, on the other hand, seems to have a negative effect (Ogunyemi et al., 2020, Sue et al., 2019). Consider the environment and context before deciding to act, so the situation is not inadvertently made worse for the victim. Constantly confronting microaggressions is emotionally exhausting and takes a physical toll:

- Consider when and where (and whether) to confront the perpetrator.
- Consider whether confrontation or education should be the more dominant response.
- Be sensitive to the relationship dynamics among the people present.
- Consider the ramifications and possible consequences of taking action, particularly when there is a power dynamic at play, such as between a student and faculty member.

When more people begin to accept collective responsibility to act, fear of negative consequences and retaliation will lessen, and real societal change can take place. (See also Chapter 6, p. 56.)

> The world is a dangerous place to live, not because of the people who are evil, but because of the people who don't do anything about it.
>
> ~Albert Einstein

The Institution's Role in Equity

Colleges have continuously improved efforts to provide an environment that maximizes success and helps transform students' lives. Developmental education reform efforts (Jenkins et al., 2019) and, more recently, guided pathway (AACC, 2017) efforts, have shifted the way institutions think about, support, and provide learning opportunities for students. As part of the guided pathways movement, the concept of meta-majors (Jobs for the Future, 2016), or areas of interest, has coincided with a shift away from a "single mathematics course for all" mindset and towards a mathematics pathway (Dana Center, n.d.) approach. By offering general education mathematics courses that align to students' degree programs, faculty are creating learning environments that foster mathematical proficiency. Concurrently, developmental education reform movements have changed the path to these various gateway courses. Two primary changes, reduction of the developmental course sequence and adjustments to placement processes, enhance student access to and success in gateway mathematics courses. These and other continuous improvement efforts require institutional fortitude and resources to transform outdated practices. As institutions work and innovate to improve student success, efforts must emphasize equitable student success outcomes.

Institutions must ask themselves: How are we measuring reform movement success? Are outcome gaps being closed due to the new practice or policy? Are students experiencing support in equitable proportions? “We need a long-term sustained focus from professional organizations, college leadership, faculty, staff, and policy makers” (AMATYC, 2018, p. 62). However, supporting faculty and staff with resources is just half the work for executive leadership. Governing boards should be invested in guides (ACCT, 2020) and professional learning opportunities to ensure new and revised policies and procedures are reviewed with an equity lens. Additionally, executive leadership teams should be actively involved in national organizations that promote data-informed and evidence-based decision making with disaggregated data (AACC, n.d.; Achieving the Dream, n.d.; Garder Institute, n.d.). Data should expand beyond the classroom to include co-curricular, support services, and post-graduation information.

National faculty associations have created visions (e.g., the American Association of Colleges and Universities (AAC & U, 2018) *A Vision for Equity*), series (e.g., the Mathematical Association of America’s *Equity in Action* (2022)), networks (e.g., the National Organization for Student Success’ *Equity, Access and Inclusion Network* (n.d.)), and position statements (e.g., AMATYC’s Diversity, Equity and Inclusion statement (2020)) focused on equity in the transformation of curriculum, pedagogy/andragogy, and support services. Administration needs to support faculty participation in organizations such as these, bolster professional development resources, and incentivize localized research. Faculty ownership of the transformed learning environment requires a commitment from administration to support professional learning, innovative practices, and continuous improvement models. These continuous improvement models must take on a collaborative approach to move the needle on equity gaps; mathematics faculty cannot do it alone. Institutional research, faculty in other disciplines, student affairs, and academic support departments are all critical to both increasing student success and achieving equitable student outcomes.

Institutions support students through many departments and programs that rely on the expertise of educators serving in staff roles. Staff facilitate and coordinate institutional operations, including registration, financial aid, and tutoring. The multitude of roles that staff utilize to effect change and to implement equitable practices provide them with a unique capacity to change our institutions. Staff support our institutions’ equity missions through student support services, hiring practices, and collaboration with faculty and local schools.

> Change must happen individually before it can happen collectively. People drive change, lead change, and sustain change. Lasting change happens when educators understand both the meaning of equity and that meaning is represented through personal values, beliefs, and actions. (McNair et al., 2020, p. 1)

The Institution’s Role in Evidence-Based Practices

To make an impact on student success in the first two years of college mathematics will require faculty to view mathematics education through an equity lens (Kezar et al., 2020; Lin et al., 2020; Purnell & Burdman, 2022). To support faculty in viewing efforts through an equity lens, it is imperative that institutions provide support in terms of available evidence. The data provided must be aggregated and disaggregated, showing a clearer picture of the intricacies in the data. Equally important, the institution must seek out and make available qualitative data to inform

faculty on the student experience. Both ownership and engagement are PROWESS Pillars (AMATYC, 2018, p. 9) and cannot be fully measured without speaking to and understanding the student experience. Finally, and most importantly, the institution must create a culture that supports data use as a tool for improvement, not as an instrument of fault finding. (See also Chapter 6, pp. 57-60.)

As stated in the AMATYC (2020) statement on *Diversity, Equity, and Inclusion in Mathematics*, "Equity reform in mathematics teaching requires institutional change, such as … collect data that is disaggregated, longitudinal and includes quantitative and qualitative components" (para. 4).

Collecting the data does not, by itself, create a more equitable environment for the teaching of mathematics. The institution must also create an environment that allows and encourages faculty to ask questions about the data, investigate the causes of disparities in the data, and act upon their conclusions. As seen in AMATYC's (2018) *IMPACT*, there is no "average" student in the community college. Each institution will have unique needs based on the population of students. This also means that honest discussions around the current success and difficulties of marginalized populations must occur (Diggles, 2014). This will only happen when faculty operate in a culture that encourages and promotes the deep understanding and questioning of data (Hora et al., 2017).

Active and Collaborative Learning

Incorporating diversity and inclusion into active learning is essential for creating an equitable and supportive educational environment. Active learning strategies engage students in the learning process and can be enhanced to promote diversity and inclusion. When researching active learning or collaborative learning, instructors will find various definitions. We will define active learning as learning that allows for students to be engaged in their learning process as opposed to passive learning (such as lecture-based). Likewise, we will define collaborative learning as using groups of two or more students to share in the learning process.

Integrating active learning in mathematics classrooms involves replacing the traditional lecture model with one that supports productive student interactions (Boyce & O'Halloran, 2020). A study by Theobald et al. (2020) found that the amount of active learning students perform in a STEM classroom positively correlates with narrowing achievement gaps between students in minoritized groups and non-minoritized groups. It should be noted that active learning in the classroom reconstructs the instructor's role to that of a facilitator of student's educational development. The interaction between the instructor and student is productive and relies on each class session's context (Lombardi et al., 2021). Theobald et al. (2020) noted that this does not mean that lecturing is not an effective form of instruction; however, lecture alone will not deepen most students' understanding in STEM. Lombardi et al. (2021) stated that it is important to ensure that when incorporating lecture with active learning activities, it must be implemented to increase student action in knowledge development and meaning building.

Active learning in the mathematics classroom also involves collaborative learning. According to Ching (2020), collaborative learning allows students the opportunity to be more actively engaged in their learning or task and hence helps them understand the material more efficiently. The author furthermore states that collaborative learning has also shown that students who tend to perform below average become more capable in their education. Ching (2020) discussed a study

in which collaborative learning techniques were implemented in a college mathematics class. It was found that students who were typically less engaged in solving mathematics problems became more diligent in working on their mathematics exercises when given the opportunity to work with other classmates. These students also increased their cognitive and social skills through working with fellow students.

Student-to-student and instructor-to-student interaction is important for positive effects on students' learning in the classroom. Lugosi and Uribe (2022) found that when the instructor gives feedback and encouragement during active learning activities, this can have an improvement in students' emotional intelligence. The authors also discovered that allowing students to work in groups, engage in class presentations, and have opportunities to explore and experiment in their mathematics class will result in students being engaged in problem solving and mathematical inquiry. In fact, students are more apt to connect current mathematics knowledge to previous knowledge by engaging in active learning activities in the classroom and hence increase their likelihood of storing this new knowledge into their long-term memory.

What about microaggressions that may occur in the classroom during an active learning activity? How can the instructor respond to possible microaggressions? Souza (2018) created a communication framework on how we can respond to microaggressions in the classroom called ACTION. Implementing these strategies in your classroom can help address and even reduce microaggressions in the classroom.

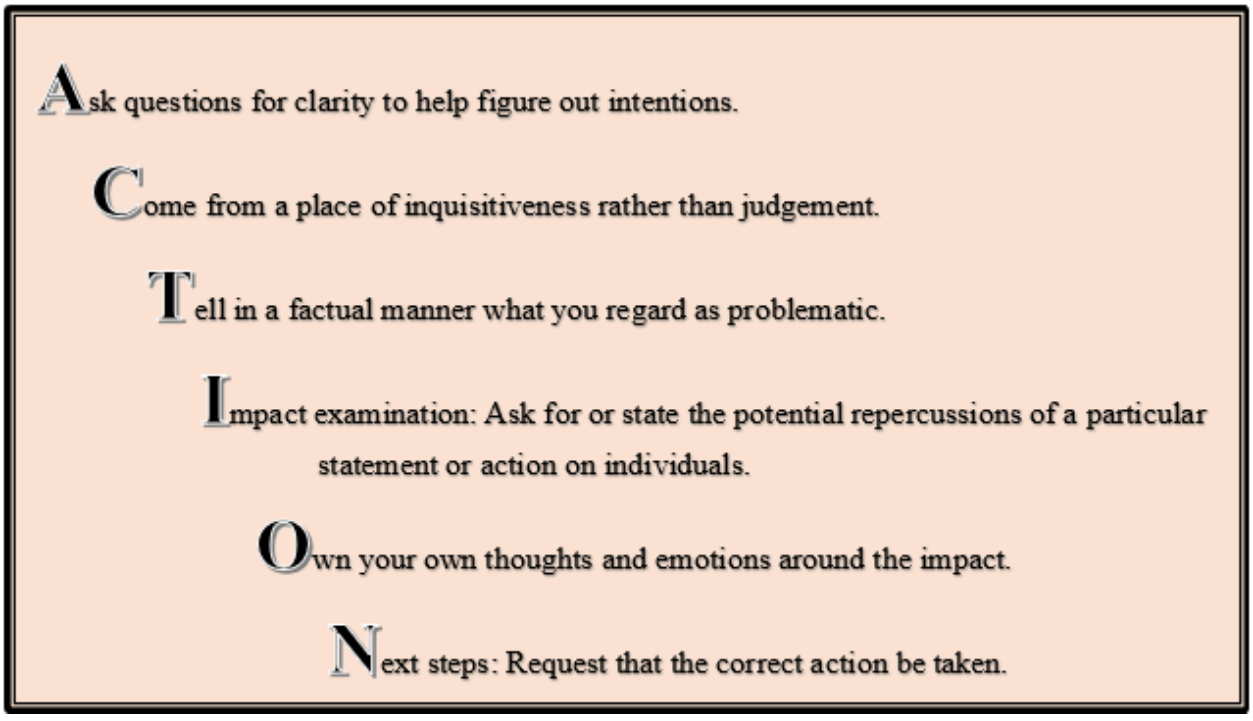

Figure 1. Taking ACTION against microaggressions during active learning (Souza, 2018).

Active learning has been gaining momentum in higher education. Many colleges are researching the effectiveness of implementing active learning strategies in the classroom. Collaborative

learning works hand in hand with active learning activities to help students work with their peers and help each other in their learning process. By implementing active learning techniques in the classroom, students can become more engaged in their work and their education journey.

Examples of active and collaborative learning:

- Whole group discussions.
- Online collaboration spaces (such as Teams or Zoom)
- Think/Pair/Share.
- Class polls (such as Kahoot or Jotform).
- Group projects (collaborative learning).
- Class games to review material (such as Jeopardy or Bingo).
- Multiple small groups working on problems together at the board.

In an inclusive mathematics college classroom, active learning takes center stage as a dynamic and equitable pedagogical approach. Here, students of diverse backgrounds and abilities actively engage in the learning process through collaborative problem solving, group discussions, and hands-on activities. This approach fosters an inclusive environment where all voices are heard and valued, enabling students to acquire mathematical knowledge and develop critical thinking skills, boost self-confidence, and appreciate the richness of different perspectives. Instructors create a supportive space where students feel empowered to explore mathematical concepts together, breaking down barriers and ensuring that all learners have an opportunity to thrive in the world of mathematics. (See also Chapter 5, p. 44.)

Universal Design

Students experiencing life-long or temporary physical, psychological, or mental impairments are human beings who add to the diverse cultural mix of society and contribute to our society in all the unique ways that each other member of society does. Such differences include, but are not limited, to visual, speech, mobility, dexterity, and hearing impairments; intellectual disabilities; major depressive disorders, emotional illnesses, post-traumatic stress disorders, traumatic brain injuries, and specific learning disabilities, such as autism, ADD, and ADHD; cerebral palsy; epilepsy; muscular dystrophy; multiple sclerosis; orthopedic conditions; cancer; heart disease; diabetes; and contagious and noncontagious diseases, such as tuberculosis and HIV disease (whether symptomatic or asymptomatic). These disabilities or differences can be invisible or visible.

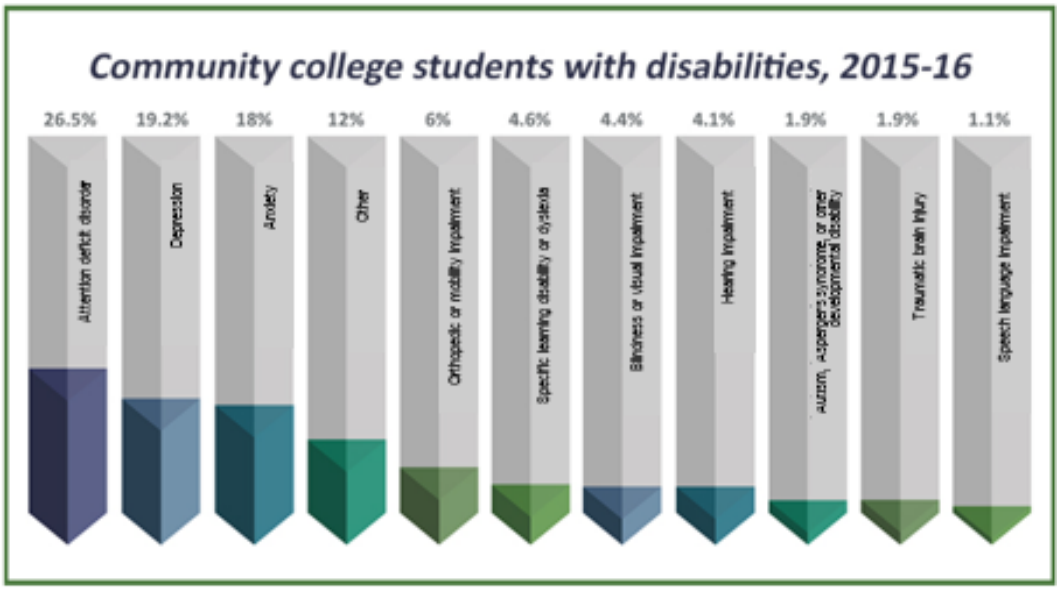

Figure 2. Community college students with disabilities, 2015–2016 (AACC, 2018).

The National Center for Educational Statistics (NCES, 2022) reports that 13% of the students at community colleges have reported disabilities to their institutions, however, NCES data further suggests that only 37% of the students with disabilities do inform their institutions (Key Findings, Informing). Our population of students with disabilities is large—close to one third of students with disabilities attend community colleges. Figure 2 identifies the major categories of reported disabilities at community colleges.

Fostering equity and inclusion demands that we acknowledge the need for implementing the principles of universal design into our programs and curriculum. Universal design for learning, as developed by CAST, is a framework to improve and optimize teaching and learning for all people, based on scientific insights into how humans learn. It is useful to consider the social model of disability. Society has moved from a medical model (treating the individual to fit) to a more inclusive social model (how we arrange society to be inclusive) with respect to abilities. The disabilities that are experienced in the classroom or on campus are there because the environmental framework was built to benefit physically, mentally, and psychologically able-bodied persons. It was a choice. We can instead grow a more humane society, and embrace and choose inclusivity.

Faculty can promote disability justice and reduce ableism through the inclusion of equitable teaching and learning practices, such as disability accommodations and inclusive course design strategies. Through these practices, barriers can be reduced and, in some cases, entirely removed for students with disabilities. Disability accommodations focus on meeting the individual needs of the student by requesting modifications to the learning environment. By setting up proactive strategies to create courses and support services that are accessible to the widest variety of students, institutions, faculty, and staff may reduce the need for some individualized disability accommodations. One example would be reducing timed assessments. Extended time on tests as an accommodation should also be considered as part of universal design. Timed tests in mathematics have been shown to heighten anxiety in some students while lowering their overall exam performance (Stretch & Osborne, 2019). The authors also discuss how extended time on tests can be beneficial for most students. In fact, Gernsbacher et al. (2020)

delve into the inequitable and exclusive nature of timed tests as evidenced in studies and propose the subsequent recommendations:

- Remove time limits on all tests.
- If time is limited due to class constraints, consider administering the test asynchronously (such as online or take home).
- Consider assigning projects, reflections, and other alternative types of assessments to assess mastery in addition to traditional testing.

Designing assessments that are not time bound or use less than one quarter of the classroom time (so that students needing additional time would be naturally accommodated within the classroom time structure) would be an appropriate accommodation to the social structure, reducing the medical model of exceptions for individuals. As part of envisioning a more inclusive society, instructors and support staff need to center the students' needs. Accommodations do not change the expectations of students to meet essential requirements or learning outcomes of a course, service, or program, though essential requirements may need to be evaluated and modified if they are bound by a particular mobility, physical, or dexterity ability. For example, does every student need to graph an equation without technology, or is the course requirement to know the characteristics of types of graphs and to recognize those characteristics? See Table 1 for examples of accommodations that can be promoted at the institutional, faculty or staff, or student level. (See Chapter 4, pp. 37–39 for more information.)

Table 1

Institutional, Faculty or Support Staff, and Student Practices

Institutional Practices	
Relocate to an accessible building or classroom.	Use experiential learning accommodations (e.g., internships, practicums, student teaching).
Provide accessible furniture.	Provide access assistance (e.g., scribes, readers, lab assistants.
Employ sign language interpreting and real-time captioning.	Provide accommodation letters.
Set policies and use language that directly relate to diversity, equity, or inclusion (e.g. diversity statements; statements about pronouns).	
Faculty or Support Staff Practices	
Create accessible documents or slide decks (using built-in software formatting).	Use experiential learning accommodations (e.g., internships, practicums, student teaching).
Record lectures with closed captioning or transcripts.	Provide access assistance (e.g., scribes, readers, lab assistants).

Set flexible attendance policies.	Set flexible assignment deadlines.
Use extended time.	Scaffold assignments.
Allow use of computers or tablets for note taking or in class assignments.	Allow individual or group work to reduce social anxiety and other conditions.
Consider self-disclosure of one's own hidden disabilities; be open to students' self-disclosure.	Attend to the overall tone of syllabi with a balance between authoritative and directive versus friendly and accessible.
Internalize the fact that disability is not a "one size fits all" process.	Set clear expectations around office hours, guidance, questions, and help-seeking.
Reduce classroom and office distractions	Build social belongingness among students and groups are safe from microaggressions.
Use a variety of teaching strategies: visual and audio representations, in class and online materials and discussions, regular feedback.	Provide a choice of a project, presentation, or paper to demonstrate knowledge and skills.
Student Practices	
Ask for priority seating	Use assistive listening devices
Ask for peer note taking	Report disability and seek accommodations
Consider self-disclosure to instructor	Use computer or tablet for note taking or assignments

Developing and implementing a teaching practice based on universal design may seem like a monumental undertaking, but small steps and incremental changes can make a big difference (Boysen, 2021; Dahlstrom-Hakki & Wallace, 2022; Duranczyk & Fayon, 2008; Izzo et al., 2010; Kachwalla, 2021; La et al., 2018; Lambert et al., 2021; Penner, 2018). Universal design for learning takes into consideration assessments, pedagogy, and communications. These considerations reduce students' need for individualized accommodations and can benefit all learners, not just the students with disabilities. The following list includes some resources to get started.

- Action Planning Worksheet for Universal design for learning. https://thinkcollege.net/resource/universal-design-learning-udl/action-planning-worksheet-universal-design-learning
- Center for Applied Technology (CAST) website. www.cast.org

- Universal Design: Process, Principles, and Applications. https://www.washington.edu/doit/universal-design-process-principles-and-applications
- ULD Guidelines by CAST. https://udlguidelines.cast.org/
- Universal Design for Learning in Higher Education. http://udloncampus.cast.org/home

Working Together for Equity and Inclusion

This chapter highlights the benefits of equity and inclusion within our college mathematics classrooms. It recognizes that our diverse student body brings with it a wealth of perspectives, talents, and experiences. By promoting fairness and accessibility, we ensure that every student has the opportunity to thrive mathematically, irrespective of their background.

Every student is a valued member of the educational community, irrespective of background or identity. The best path forward in mathematics education is to recognize that the success of all students is of paramount importance, but it is a multifaceted issue without a quick fix. Mathematics education must look beyond the content and to the student. Helping students feel a sense of belonging in the classroom, being aware of our own biases, and adopting universal design are three critical aspects of supporting student success. We encourage faculty to become leaders in this ripple of change that creates supportive environments for all students to learn.

Faculty are at the heart of student success. They are directly responsible for delivering content and connecting to students. "It's their passion, hard work and authentic interactions that help" students succeed (Malvik, 2020, para. 1). Faculty develop and deliver the mathematics curriculum and, therefore, have the responsibility and discretion to select the educational experiences encouraged in the classroom (U.S. DoE, 2016). Many well-established frameworks foster pedagogical engagement with access and inclusion, incorporating students with disabilities, as well as other populations that have experienced marginalization in our society; examples include antiracist pedagogy, multicultural education, and inclusive pedagogy. Regardless of the approach, accessible and inclusive teaching is guided by these seven grounding principles (Carter, 2022):

1. **Integrate diversity:** Establish guidelines that capitalize on difference as inherently valuable by including and supporting diverse voices throughout the course in reading materials, research cited, visuals presented, and all course and classroom artifacts. (See Chapter 3, p. 25.)
2. **Expand access:** Identify the key skills necessary for achieving course goals and proactively consider accessibility to reduce the need for reactive or retroactive adjustments throughout the semester.
3. **Foster belonging:** Design the course with a learning community model, where there are shared responsibilities, being proactive in addressing and interrupting exclusionary social dynamics. (See Chapter 4, p. 33.)
4. **Utilize differentiated instruction:** Explicitly acknowledge and model multiple instructional practices to reinforce that one approach to teaching and learning does not meet the needs of all students or all instructors. (See Chapter 4, p. 34.)
5. **Embrace structured flexibility:** Design the course with multiple paths to achieve course goals and alternative plans, as changes in structure may enhance both students' and instructors' performances. (See Chapter 7.)

6. **Model transparency:** Be explicit in clearly presenting, describing, and detailing learning objectives, essential requirements, and pedagogical choices to enhance students' understanding of teaching and learning decisions.
7. **Incorporate feedback:** Create opportunities for reflection, feedback, and revision within assignments and in the overall course design, so personal and shared reflections can inform the teaching and learning practices throughout the semester. (p. 2)

Institutions are responsible for ensuring faculty are supported and provided with resources and professional development opportunities, not leaving faculty to work alone. Only by engaging and supporting faculty as a community of practitioners, and by fostering the willingness to question long-held beliefs, will the ripple continue to grow. Institutions must hire faculty who are credentialed and highly knowledgeable about teaching and learning theories for mathematics and who can bring diverse perspectives and differing views to the classroom (AMATYC, 2018). Through this diversity, students gain unique perspectives on mathematics, classroom interactions, college, and life. Institutions must focus on who is in the classroom to ensure students succeed in their first two years of college mathematics.

Faculty are responsible for exploring their own implicit biases, learning how to address microaggressions in and out of the classroom, and supporting students who may be experiencing stereotype threat. By utilizing pedagogical techniques, such as active and collaborative learning, and designing courses with a more universal design, faculty can improve the college experience of students and increase student success. Diversity, equity, inclusion, and accessibility should be critical aspects of any classroom experience, curriculum development, pedagogy, hiring process, retention policy, and professional development program. When institutions, faculty, and staff collaborate to address these issues together, we can build stronger, more effective programs and positively impact student success.

For other resources on equity and inclusion, click here.

Do you already have great information or ideas on infusing equity and inclusion into the mathematics classroom? Would you like to learn about more ways to foster sense of belonging in your students? Head to AMATYC.org/IMPACTLive and find innovations your colleagues are using or contribute innovations and ideas of your own.

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