

## The History

 of The National Association ofMathematicians (NAM)
The First Thirty (30) Years: 1969-1999

Johnny L. Houston



## The History

## of

# The National Association 

## of

# Mathematicians (NAM) 

-----The First Thirty (30) Years: 1969-1999-----

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National Association of Mathematicians, Inc.; NAM

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This book is dedicated to the ladies of my life; they have truly been the winds beneath my wings: * my mother - Mrs. Catherine Houston Vinson,

* my wife - Mrs. Virginia Lawrence Houston,
* my elder daughter - Mave Talibra, and
* my younger daughter - Kaiulani Michelle


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## PREFACE

Why is it important to reflect on the history of NAM at this time and in this volume?
First, humanity in general and the people of the United States of America in particular are still attempting to resolve the issues of fairness, equity, and diversity. There is the constant temptation to view differently that which differs from the majority. More often than not, a lesser value is attributed to these views; presenting arguments that fairness, equity and diversity are incompatible. In the USA, especially in the areas of the mathematical sciences, we can easily trace these issues to colonial times when a man of extraordinary ability and a man of color, Benjamin Banneker, was making his contributions to the storehouse of humankind in general and to the development of America in particular. Questions were being raised regarding the quality of his work as compared to that of outstanding scientists of the majority race during that era. During that period, James McHenry, Secretary of War (in John Adams' Cabinet) [1799] made the following comment: "Benjamin Banneker is fresh proof that the powers of the mind are disconnected with the color of the skin." At the end of the twentieth century, the struggles with the issues of fairness, equity, and diversity continue. The History of NAM, the First Thirty Years will permit us to reflect on some of the progress that has been made with these struggles over the past three decades and to reflect on some of the challenges that still lie ahead. As a nation of people of diverse heritages, cultures, races, and ethnicity; we are indeed a "developing nation" (even in 1999) when is comes to reconciling the issues of fairness, equity, and diversity.

Secondly, this volume and the existence of NAM are dual reflections of some of the progress that has been made in the mathematical sciences and some of the challenges that lie ahead. It is the belief of this author that progress will continue to be made only if there is a continuous and constructive dialogue about the progress of the past and the challenges of the future.

Thirdly, the year 1999 is the $30^{\text {th }}$ Anniversary year of the founding of NAM. Moreover, the year 2000 is the seventy-fifth $\left(75^{\text {th }}\right)$ anniversary year that the first black man in the USA, indeed the first black man in the world, Elbert Frank Cox (Cornell U., 1925), earned a Ph.D. in mathematics. Certainly, these milestones are worthy of a pause to reflect. Although Cox died during the incipient year of NAM, several other African Americans who earned a Ph.D. degree in mathematics shortly after Cox were actively involved and supportive of the founding and development of NAM. One in particular, the late Walter R. Talbot (1909-1977), the fourth African American to earn a Ph.D. in mathematics (U. of Pittsburgh, 1934), was one of the founders of NAM. Talbot helped to guide NAM from its inception through its first decade. Many of the other earlier African American mathematicians who were involved in the development of NAM have retired and/or died, and their names are no longer currently associated with NAM or with any area of the mathematical sciences. History did not record all that they did or said; however, for some, their contributions to NAM and to the mathematical sciences community in general have been duly noted. It is the author's hope that the writing of this volume, The History of NAM, the First Thirty Years, will give many of them credit for some of their contributions that helped the USA to make some progress in the mathematical sciences. Just as important, it is hoped that the mathematical sciences community (especially, institutions of higher learning in the USA with doctoral programs) and many national leaders today will see these contributions, as well as the development of NAM, as encouragement to take some bold initiatives in the future. Particularly, it is hoped that the current challenge of producing, annually, a significant number of Ph.D.'s among the ranks of under-represented American minorities in the mathematical sciences is adequately addressed in the future

I wish to express my thanks and appreciation to all persons who have been involved with the development of NAM; all members (past, present, future), all supporters, and all friends of NAM. They are the persons who made the history of NAM and this volume possible. Moreover, I wish to thank persons who preserved and shared documents. Additionally, I wish to especially thank Mrs. L. Genell Brothers for her general assistance and contributions: research, typing, etc. in helping to produce this volume, and Mr . Randolph Harris for contributions with the photographic entries.

Johnny L. Houston; December 1999

## Elbert Frank Cox



Elbert Frank Cox
(1895-1969)
Elbert Frank Cox was the first black man in the world to earn a Ph.D. degree in Mathematics. Elbert Frank Cox died the year NAM was founded.


# Dr. Walter R. Talbot 

> (1909-1977)
(Elder Statesman)
One of the NAM's Founders


William W. S. Claytor
(1908-1967)


## Presenters of the Cox - Talbot Address



Center: Charles Bell

Right: William A. Hawkins


Nathaniel Pollard


Gloria Gilmer



Center: Johnny L. Houston


Etta Falconer


Second from Left: Evelyn Boyd Granville

## CHAPTER I: INTRODUCTION - NAM TODAY, WITH AN HISTORICAL PERSPECTIVE

For those readers not familiar with NAM as an organization, this chapter is designed to provide a brief history of NAM and a description of NAM in 1999 - NAM's Thirtieth ( $\mathbf{3 0}^{\text {th }}$ ) Anniversary Year.

This chapter addresses the question: what characterized NAM's existence for the first thirty (30) years? Succinctly stated, the era of NAM's first thirty (30) years can be characterized as the era for

* Establishing Awareness;
* Commanding Recognition - Providing Proper Recognition; and
* Building the Foundation of a Non-profit International Mathematical Sciences Organization of Quality.


## A. ESTABLISHING AWARENESS

A group of seventeen (17) persons, all under-represented (minority) American mathematical professionals, are given credit as bringing about the inception of NAM. The group met in New Orleans Sunday, January 26, 1969, to discuss "where do we go from here;" as a group, as an organization, and as a positive force that would make a difference in the mathematical sciences community in the USA, and indeed, in the world. This force would be a clear and omnipresent voice for issues, ideas, perspectives, and for persons who did not enjoy such a voice in the past. This force would advocate inclusion and not exclusion. This force would "sit around " the conference tables and the banquet tables of the mathematical sciences community, refusing to become isolated from the mainstream. This force would advocate conflict resolution and human/cultural problem-solving for the common good of the community of scholars. The ultimate mission and purpose of NAM would be clearly stated as follows:

* To promote excellence in the mathematical sciences; and
* To promote the mathematical development of under-represented American minorities.

The seventeen (17) who met in New Orleans; January 26, 1969 (listed alphabetically) are as follows:

1. James A. Donaldson,
2. Samuel Douglas,
3. Henry Eldridge,
4. Thyrsa Frazier,
5. Richard Griego,
6. Johnny L. Houston,
7. Curtis Jefferson,
8. Vivienne Mayes,
9. Theodore Portis,
10. Arbeligic Rodriquez,
11. Charles Smith,
12. Robert Smith,
13. Beauregard Stubblefield,
14. Henry Taggert,
15. Walter Talbot,
16. Harriet Walton,
17. Scott Williams,

University of Illinois/Chicago
Grambling College
Fayetteville State College
Central State University
University of Mexico/Albuquerque
Stillman College
Cuyahoga Community College
Baylor University
Alabama State University
Bishop College
Paine College
Pennsylvania State University
Texas Southern University
Jarvis Christian College
Morgan State College
Morehouse College
Lehigh University

Several records of the Association quoted a few of the things that they said. But more importantly, it was a meeting that ignited a flame that has continued to glow for three (3) decades which was indeed the inception of NAM. The seventeen (17) persons themselves were not so special or important but what was special and important was that these persons were of one accord and they represented, in an unselfish way, the views and perspectives of hundreds, even thousands. Morcover, they became committed to helping to influence a new era in the mathematical sciences in the USA. They developed the resolve that silence and exclusion would no longer be the order of the day. Instead, all who desired to learn mathematics, and/or contribute to the community of scholars in the mathematical sciences would be both encouraged and assisted in doing so. The group raised the questions:

## If not we as spokespersons, then who?

## If not now to begin change, then when?

Their resolve was that from this day forward, under-represented American mathematical professionals of color would embrace the

## Kwanzaa Principle of Kujichagulia (Self-Determination).

And so began the first era of NAM three (3) decades ago.
In less than a year, these seventeen (17) voices had been joined, literally, by hundreds of other voices. In less than two years, this force had become an organization called:

## The National Association of Mathematicians, Inc. (NAM).

If there was one person who played a more prominent role in the inception of NAM than all the others, it was Walter R. Talbot. Talbot organized, assembled and secured funds for many of the early meetings which continued the discussions that initiated in the New Orleans Meeting. However, in his own generous and professional way, he never sought, requested or desired special recognition for his many contributions. He did not even seek any leadership position in NAM but was content to be a catalyst for helping to organize and energize NAM. There were many others who played important roles in the birth of NAM; for instance, Frank James became the first elected president of NAM. But there was no role more important than that of Talbot's; he was indeed the "wind beneath our wings" during NAM's formative years.

Upon reflection, NAM began in the early 1970's requesting all under-represented American mathematicians of color to join together as a collective voice to clearly become more aware of the status of issues in the mathematical sciences community and to make known to the larger mathematical sciences community some issues of importance that needed to be considered in the interest of inclusion, in the interest of openness, in the interest of fairncss, and in the interest of progress and improvement in the mathematical sciences community in the United States and abroad. As NAM forged ahead with the issue of Awareness, other mathematical sciences organizations took note and began similar initiatives of their own. For example, the women mathematicians started a new organization, The Association for Women in Mathematics (AWM), two years after the founding of NAM.

NAM raised the issue of Awareness to such a high level that governmental and other agencies expressed interest in funding an Office of Awareness.

## B. COMMANDING RECOGNITION - PROVIDING RECOGNITION

As this organization that we now call NAM continued to meet, define itself and set its agenda, other mathematical sciences organizations, governmental and private agencies, and others began to give recognition to NAM. When it was perceived and understood that NAM's agenda was neither exclusive or negative in nature, when it was recognized that NAM communicated and negotiated with others in a professional manner and that NAM disagreed (when necessary) in an agreeable manner, many traditional mainstream mathematicians joined NAM and supported its mission and purpose. Other mainstream mathematicians, who did not join NAM, came to respect NAM. Over the years, respect for NAM has constantly grown from small circles of mathematical professionals, to larger circles: regional, national, and international arenas.

Thus, in a short period of time, NAM made others more aware of NAM's existence as well as its mission and purpose. This led to the change in the composition of National Boards and Committees as well as the Boards and Committees of other mathematical sciences organizations. NAM, collectively, and many men and women of color, individually, began receiving more invitations to participate and to be involved in all levels of the mathematical sciences community. Today NAM is considered a peer by most mathematical sciences organizations. For example, NAM is considered a junior partner in the Joint Winter Mathematics Meetings of the AMS/MAA, held each January and in MAA's Annual Summer MATHFest. NAM is currently considered a full partner of the Conference Board of Mathematical Sciences (CBMS).

NAM is a full partner/supporter of the American Mathematics Competitions and NAM is a full partner/supporter of IMO, the International Mathematics Olympiad scheduled to be held in the USA in the year 2001. In short, NAM is currently recognized and respected, nationally and internationally, as a viable and contributing non-profit mathematical science organization of quality.

In the area of recognition, NAM went beyond commanding respect and recognition. NAM has given respect and recognition to all professionals in the mathematical sciences, especially to many under-represented American Mathematicians of Color who deserve special recognition.

## 1. THE ESTABLISHMENT OF NAMED ANNUAL LECTURE SERIES

With the establishment of its named lecture series, NAM has given respect and recognition to the following African American Mathematicians:

## a. The Claytor Lecture

Presented at the Joint Winter Mathematics Meetings in Established in 1980. (1908-1967), the first nationally was the third African Amantician; Claytor whe American to receive a Ph.D. degree in mathematics (1933).

## b. The Blackwell Lecture

Presented at the MAA MATHFest (Summer Meeting) in honor of David Blackwell (1919-), the only African American mathematician elected to the National Academy of Science (Fellow).

## c. The Wilkins Lecture,

 Presented at NAM's Undergraduate MATHFest in October in honor of J. Ernest Wilkins, Jr. (1923). Wilkins is the only African American mathematician-engineer elected as a Fellow to the National Academy of Engineers.d. The Bharucha-Reid Lecture

Established in 1994.
Presented at NAM's Annual Faculty Conference on Research and Teaching Excellence in honor of Albert Turner Bharucha-Reid (1922-1985); a world - class mathematician who only earned a B.S. degree yet he published 75 refereed papers and five (5) books. At least thirteen (13) students eamed Ph.D.'s in mathematics under his supervision.

In addition to honoring the mathematicians with these named lecture series, NAM uses these lecture series each year to give recognition to persons who are currently engaged in research. It is NAM's belief that by extending an invitation to present their research, these mathematicians will be encouraged to continue to develop their research careers.

## 2. ESTABLISHMENT OF OTHER NAMED ACTIVITIES

With the establishment of the Cox-Talbot Address, NAM has given honor to two (2) African American Mathematicians, Elbert F. Cox, (1895-1969), the first black man in the world to receive a Ph. D. degree in mathematics and to Walter R. Talbot (1909-1977), the elder statesman in the founding of NAM and the fourth black American to receive a Ph.D. degree in mathematics. This address was established in 1980. Each year, this address permits a mathematical professional to share pertinent information with the mathematical sciences community. Additionally, with the establishment in 1996 of the Granville - Browne Session for Presentations by Recent Recipients of the Doctoral Degree in One of the Mathematical Sciences, NAM gave honor to the first two African American women to receive the Ph.D. degree in mathematics: Evelyn Boyd Granville (1924-) [1949] and Marjorie Lee Browne (1914-1979) [1950]. These two women, by their impressive professional lives, have inspired and encouraged many young people to continue to pursue excellence in mathematical sciences. Even today Dr. Granville continues to inspire. Moreover, these two women join (vicariously) NAM annually, in the encouragement of today's young men and women (who present in the Granville - Browne session at the Joint Winter Mathematics Meetings) to develop research careers and pursue professional lives of excellence in the mathematical sciences.

## 3. THE ESTABLISHMENT OF NAM'S LIFETIME ACHIEVEMENT AWARDS

In the 1990's NAM established its

## Lifetime Achievement Award.

The Award honors distinguished mathematical professionals whose professional lives over a period of twenty-five (25) years or longer have been exemplary - par excellence and worthy of emulating. To date, NAM has selected to give awards to seven (7) persons. NAM has presented its Lifetime Achievement Award to:

David Blackwell<br>J. Ernest Wilkins, Jr.<br>Lee Lorch<br>Evelyn Boyd Granville<br>Charles Bell<br>Clarence Stephens<br>Johnny L. Houston

(1994)

Because NAM is essentially a voluntecr based professional organization in the mathematical sciences, most of NAM's success has been due to unselfish contributions from hundreds of peoples who identified with NAM's mission and purpose and who decided to join efforts with NAM and others in helping to make a difference. To express appreciation to the many persons who have gone over and beyond the avcrage person in their contribution of service, NAM established and has presented Distinguished Service Awards and Awards of Appreciation to scores of persons. For example, NAM gives an award to each person who presents a NAM lecture or address each year, to each major invited presenter at Undergraduate MATHFest, to each NAM Board Member who serves on NAM's Board of Directors for a designated minimum period of time, to each local coordinator of a NAM activity and to persons who have made significant contributions through NAM to the mathematical sciences community.

## C. BUILDING A SOLID FOUNDATION FOR A NON-PROFIT INTERNATIONAL MATHEMATICAL SCIENCES ORGANIZATION OF QUALITY

After several meetings in 1970, following the 1969 meeting in New Orleans, and continuing through the organizational meetings in 1971 and 1972, NAM has been committed to building a solid foundation for a professional organization of quality. In 1980, NAM's Annual National Meeting inaugurated the Claytor Lecture, Cox-Talbot Address, adding to NAM's Panel and business meeting that were begun in 1975. Later in 1996, NAM incorporated in its Annual Meeting the Annual Banquet and the Granville-Browne Session of Presentations by Recent Recipients of Doctoral Degrees in the Mathematical Sciences. These activities now occur annually as the standard program format of NAM's National Meeting.

Beginning with the early 1990's, NAM incorporated an annual fall research conference for students entitled: "NAM's Undergraduate MATHFest."

The incorporation of this activity began with NAM in 1993; however, the first two (2) MATHFests were held at Hampton University (1991) and Spelman College (1992/93). The annual David Blackwell Lecture Series, in conjunction with the MAA Summer MATHFest; the annual J. Ernest Wilkins Lecture Series, in conjunction with NAM's UG MATHFest; and the Albert Turner Bharucha-Reid Lecture, in conjunction with the Faculty Conference on Research and Teaching Excellence were all established during the designated years noted earlier in this document. Recently, in 1996, NAM incorporated an annual Summer Institute in Computational Science in which students and some faculty engage in pursuing tutorials and developing research projects in computational science for a period of two weeks.

These varied activities and programs of NAM did not evolve randomly or by accident. Instead, they were the by-product of implementing NAM's By-Laws (revised in 1972, 1974, 1979 and 1994 also, modified in 1997 and 1999), and NAM's Strategic Plan (1994). In its Strategic Plan, NAM identified operational and programmatic goals associated with its mission and purpose and its functioning as a professional organization. NAM's Five (5) Year Strategic Plan and NAM's collaborations and involvements with other professional organizations in the mathematical sciences have led NAM in its development as a professional mathematical sciences organization of quality. Please recall that quality is the result of high intentions, sincere effort, and skillful execution; it represents the wise choices of many alternatives.

NAM, as a professional organization in the mathematical sciences, has a National Office with full time staff and provides year - round services for its members and the mathematical sciences community.

## 1. NAM's ACTIVITIES AND PROGRAMS BY SEASONS

## Winter

The Joint Winter Mathematics Meetings in January-NAM's Annual National Meeting

a) The Granville - Browne Session of Presentations by Recent Doctoral Recipients addresses Students, Professional Development, and Scholariy Productivity.
Seven presentations were given during the 1999 session.

## b) The Cox Taibot Address at the Annual NAM Banquet

addresses current issues in Mathematics Education and Public Policy.
The 1999 address was given by Johnny L. Houston, Ph.D.
Houston was a Founder of NAM, its first acting president, and is retirng as NAM's first active Executive Secretary (retiring in 2000 after 25 years of service in that position), His address: The End of One Era, The Begimning of Another gave a bricf history of NAM. outhood NAMs Endowment Campaign and outined the foreseeable challenges in the mathematical sciences for the next decade. The address was particularly appropriate for NAM!s $30^{\prime \prime}$ Amiversary (1999) and the dawn of a new millennium.

## c) The Claytor Invited Lecture <br> addresses Scholarly Productivity. Earl Barnes, Georgia Tcch gave the 1999 Lecture.

## d) The NAM Panel

addresses current issues in the mathematical sciences/mathematics education/pubiic policy. The topic for 1999 was "Effective Networking And Research Dialogue via Teleconferences/Telecommunication." Panclists: David Hoffman. Topper Gill, and James Turner. |Hoffman was unable to attend; however, he sent his contributions].

## Spring

NAM's Regional Faculty Conference on Research and Teaching Excellence is designcd to address Scholarly Productivity, Professional Development and Mathematics Education. In addition to short courses and presentations given by participants from the region, The Bharucha-Reid Invited Lecture gives a prominent mathematical sciences rescarcher ans opportunity to make a presentation. William A. Massey of Lucent Technologies, A T \& T. delisered the Lecture in 1999. In 1997, 1998, and 1999 the Conference focus was Computational Science - Scientific Visualization (CSSV). CSSV is an approach to the study of scientific and real-worid phenomena by extensive use of mathematical modeling, numerical methods, and simulation as well as computer programoning and computer visualization.

## Summer

NAM's Summer Institute In Computational Science is designed to present a more expanded and concentrated approach to Computational Science - Scientific Visualization. This Institute works with selected students (usually 12) and a few faculty (usually 3 faculty mentors), while the Regional Conferences engage only faculty. The Institute addresses Mathematics Education. Scholarly Productivity and Students.
At the Joint Summer Mathematics Meetings (MAA MATHFest), the David Blackwell Invited Lecture provides an opportunity for an under - represented minority mathematician to give a scholarly presentation at a prime time with no opposing scheduled activity. The 1999 lecture was given by Melvin Currie of the National Security Agency (NSA).
NAM also supports, gives presentations and encourages attendance at the Annual Conference for African American Researchers in the Mathematical Sciences (CAARMS). The 1999 Conference, held at the University of Michigan, was well attended by NAM members. Participation in this activity promotes Professional Development, Scholarly Productivity, and students (Doctoral, Post-Doctoral).

## Fall

NAM's Undergraduate MATHFest Conference is held annually to encourage students to pursue advanced degrees in mathematics and mathematics education. The 1999 Conference was held at Texas Southern University with about ( $\sim 250$ ) participants. The major goal of this gathering was to encourage promising students to continue the study of mathematics at the graduate level through the master and doctorate degrees. A secondary goal was to stimulate Scholarly Productivity in students, to this end, a selected number of students are asked to give short presentations each year at MATHFest. To promote Scholarly Productivity and Professional Development for faculty and mathematicians outside of academia, a number of mathematicians from industry and education are given the opportunity to make presentations at the Conference. Also a prominent mathematical scientist is invited to give the J. Ernest Wilkins Lecture. The 1999 address was given by Richard Tapia of Rice University.

## 2. PUBLICATIONS

## a) A Quarterly Newsletter

NAM published its first Newsletter in 1971 and has published newsletters throughout its three decades of existence. For the past decade and a half, NAM has published a quarterly newsletter. In fact, NAM's Newsletter has been one of its most effective instruments for communicating with its members and with the larger mathematical sciences community. Two special features that have been in each Newsletter for several years are:

> "Spotlight on a Mathematician" by Johnny L. Houston:
a professional and personal profile of an under - represented American minority mathematician and
"The President's Perspective" by John W. Alexander, Jr.:
a sharing with the general membership some issues of importance. NAM is widely known by its Newsletter and its Logo.

b) NAM's Proceedings

After the 1980 National Meeting, NAM published its first annual Proceedings. It was a very important document in that it introduced NAM's annual National Program, including NAM's newly inaugural Claytor Lecture and Cox - Talbot Address. M. Solveig Espelie, Paul Slepian and James A. Donaldson of Howard University were the editors of this historic document.

Other NAM Proceedings were published in the 1980's: 1988, 1989
Several NAM's Proceedings were planned in the early 1990's but were never published.
NAM is publishing a $30^{\text {th }}$ Anniversary Proceedings in 1999 and plans to publish an annual Proceedings each year thereafter.
c) Other Publications by NAM

NAM has produced several position papers that had a limited distribution.
NAM has produced one book: "Survey of Minority Graduate Students in U.S. Mathematical Sciences Departments;"John W. Alexander and William A. Hawkins, Co-Project Directors; a MAA - NAM joint project.

NAM has commissioned two books:
This current volume "The History of NAM, the First Thirty Years, 1969-1999" and
"One Hundred Profiles of American Mathematicians of Color, 1799-1999"
by Johnny L. Houston; scheduled to be published in 2000

## 3. NAM's GOVERNANCE - ORGANIZATIONAL STRUCTURE

NAM's Board of Directors is elected by the General Membership of NAM and it is responsible for the activities, programs and business affairs of the organization. The National Office, managed by the Executive Secretary, is currently located on the campus of Elizabeth City State University, one of the one hundred plus Historically Black Colleges and Universities (HBCUs) and the institution where the Executive Secretary is employed as a faculty member in the mathematical sciences. Both the current Executive Secretary and the location of NAM's National Office will change, effective July 1, 2000. The Corporation (NAM) has six organizational levels (Tiers) at which the affairs of NAM are conducted. The organizational levels are listed, beginning with the Tier directly involving the largest number of persons.
a. Tier I-General Membership

The gencral membership shall consist of all the individuals who are currently active members for the period of time under consideration.
b. Tier II - Institutional Representatives

Institutional representatives consist of all those persons selected/appointed by the State/Area Representatives and confirmed by the Board of Directors to serve as NAM's liaison persons at Historically Black Colleges and Universities and Minority Institutions of higher learning (HBCU/MI) as well as other institutions of higher learning with significant numbers of NAM members
c.

Tier III - State/Area Representatives
State/Area Representatives shall consist of persons selected/appointed by NAM's Regional Representatives and confirmed by the Board of Directors to serve as NAM's State/Area liaison persons
d. Tier IV - Regional and Special Interest Representatives

The regional and special interest representatives shall consist of persons elected by the general membership to represent designated geographical regions and designated special interest groups. Each person duly clected is to serve as NAM's liaison person as well as NAM's Coordinator of Activities for that region/special interest group. These persons are also members of NAM's Board of Directors.

## e. Tier V-Board of Directors

The Board of Directors shall consist of persons elected by the General Membership of NAM to officially manage the affairs of NAM, including a president, a vice president, a secretarytreasurer, an editor and NAM's Regional and Special Interest Representatives. Currently the members are:

## NAM's Board of Directors 1999 -

| President | John W. Alexander, Jr. | Spelman College |
| :---: | :---: | :---: |
| Vice-President | James Turner, Jr. | Arizona State University |
| Secretary/Treasure | Robert E. Bozeman | Morehouse College |
| Editor | Janis Oldham | NC A \& T State University |
| Region A Member | .Sylvia T. Bozeman | Spelman College |
| Region B Member | Leon Woodson | Morgan State University |
| Region C Member | .Mary Hawkins | Prairie View A \& M University |
| Majority Institution Member | Gloria Hewitt | University of Montana |
| Govt./Industry Member | William Massey | Bell Labs-Lucent Technology |
| Community College Member | Jacqueline B. Giles | Houston Community College |
| Executive Secretary | Johnny L. Houston | Elizabeth City State University |
| President Emeritus | Rogers J. Newman | Southern Univ. (Ex-Officio Member) |

f.

Tier VI - the National Office (Supervised by the Executive Secretary of NAM)
The National Office is under the auspices of the Board of Directors of NAM and is managed and supervised by an Executive Secretary who is appointed by the Board of Directors for a period of five (5) years with the appointment of the first Executive Secretary (Johnny L. Houston, Ph.D.) in April 1975 and with successive appointments each calendar year that is divisible by five, during the Spring Board Meeting of that year. An Executive Secretary may be reappointed as often as the appointment is one that is mutually agreeable between the entire Board of Directors of NAM and the Executive Secretary.
g.

## Types of Membership Available in NAM

National Association of Mathematicians, Inc., offers seven distinct types of memberships:
(1) Regular Individual Membership
(2) Sustaining Individual Membership
(3) Contributing Individual Membership
(4) Life Individual Membership
(5) Student Membership
(6) Institutional Membership
(7) Corporate Membership
(8) Corporate Life Membership
(9) Honorary Membership

## 4. NAM's MISSION, PURPOSES, AND GOALS

The original charter of the National Association of Mathematicians, Inc., NAM, a non-profit professional organization in the mathematical sciences, declared the mission and purposes of the organization. Over the years, the mission and purposes have been articulated in various expressions; however, the focus of the mission has fundamentally remained the same. The mission and purposes of NAM as articulated in 1999 are:
a. The promotion of excellence in the mathematical sciences; and b. The promotion of the mathematical development of under-represented American minorities.

This stated mission and associated purposes lead to the following specific major goals of NAM:
$\star \quad$ To engage in activities, projects, programs, conferences, workshops, seminars, etc. that are designed to inspired, motivate, promote, and assist persons of all ages to seek, embark upon, or maintain an active interest/career affinity in some areas(s) of the mathematical sciences; especiaily, among persons who are under-represented American minorities;
$\star \quad$ To identify and seck viable solutions to problems relevant to the education of students at all levels in the mathematical sciences; especially, students who are under- represented American minorities;

To promote and assist in the continued professional development of practicing mathematical scientists and educators; especially, persons who are under-represented American minorities;

To support the continued development of excellence in teaching and curriculum enhancement in the mathematical sciences, especially at $\mathrm{HBCU} / \mathrm{MI}$;

To advocate, promote and support quality research in the mathematical sciences, especially by persons who are under- represented American minorities;

To identify, address and seek viable solutions for eradicating the serious shortages of underrepresented American minorities being produced at the Ph.D. level and which exist at the highest level of the technical workforce.

To increase the mathematical sciences community and general public's awareness of issues of importance in areas of the mathematical sciences, especially those that are of interest to persons who are under-represented American minorities;
$\star \quad$ To annually produce various publications about the affairs of NAM, about the mathematical sciences in general and about the status of under-represented American minorities in the mathematical sciences as well as position papers and expository and research articles;

To develop and maintain databases regarding baseline data on mathematical professionals and students who are under- represented American minorities; and

To solicit and aid in the soliciting of funds for the realization of the aforementioned goals.

## 5. NAM's PROGRAM GOALS:

The mission, purposes, traditions and general goals of NAM lead to seven major program goals around which most activities of NAM are centered. These program goals express the mission of NAM in terms of concrete activities:
a. Mathematical Education

Stimulate active learning, promote effective teaching, and encourage appropriate and fair assessment in the mathematical sciences for all persons.
b. Professional/Career Development

Foster mathematical professional development, especially for persons who are underrepresented American minorities.
c. $\quad$ Scholarly Productivity

Encourage quality rescarch and scholarly productivity among all mathematical professionals, especially those who are under-represented American minorities.
d. Students Guidance/Development

Enhance the interests, talents, and achievements of all students in the mathematical sciences, especially students who are under-represented American minorities.
e. Publications

Produce periodic publications about NAM's activities, quality expository and research articles for students, faculty, professionals, and the public, as well as attempt to eradicate myths, stereotypes, and misrepresentations about mathematics and under-represented American minorities: the latter by position papers.
f. Databases

Establish, maintain, and constantly update current and accurate databases on underrepresented American minorities.

## g. Public Policy

Influence societal, institutional and public policy through effective advocacy for the important uses and needs of the mathematical sciences for all persons.

The program goals are addressed in details in NAM's Five Year Strategic Plan. In session six NAM's plans for acquiring future resources to support these programs and other activities are explained.

## 6. NAM's MILLION DOLLARS ENDOWMENT CAMPAIGN

Currently, NAM「s activities. programs and operations are primarily supported by volunteer service support and in-kind services: and financially, by membership dues, targeted grants and publication advertisements. These various levels of support will continue to be necessary in the future. However, NAM will need an additional dimension of guaranteed support to be financially stable, to operate a National Office with the infrastructure to provide needed services to NAMs Board, General Membership and to the larger mathematical sciences community as well as to fully implement all the program goals of NAM`s Strategic Plan.

In the future, NAM will need an endowment or a perpetual fund that will virtually guarantee NAM a minimum amount of available financial resources each year for planning and implementing programs and activities, regardless of how the other facets of support may vary each year. Financial stability is something that seldom occurs by accident. Instead. it is usually a by-product of careful and deliberate planning, coupled with persistence, determination and hard work. NAM's current leadership understands this. Thus, after two years of planning: NAM is now actively involved in a Million Dollar Endowment Campaign, a campaign to
ensure the Perpetuity of NAM.

## Four of NAM's Living Presidents

 (1998)
(J. L. Houston, F. James, R. J. Newman, J. W. Alexander)

## NAM's Three (3) Deceased Presidents



## Some Typical Scenes of NAM's Board of Directors I



NAM•S National Office. Elizabeth City State University. 1992


Some Typical Scenes of NAM's Board of Directors II


$23$

## CHAPTER II: THE FORMATIVE YEARS OF NAM 1969-1974

During the formative years of NAM, documentation was meticulously maintained and preserved. The events, the places, the dates and the people involved were recorded as though it was known that this volume would some day be written and published. This information was recorded as though it would be shared with future generations so that it would be known precisely what took place and who was involved. Thus, much of what is being presented in this chapter is a direct translation of what was recorded at the time that it occurred. During these formative years, a number of related meetings occurred. Each meeting added an additional progressive dimension to the formation and growth of NAM as an organization.

## A. 1969 --- NEW ORLEANS

Some persons might attempt to trace NAM's origin to efforts made at a meeting in Houston in January 1967. However, a concrete beginning with continued follow-through would place the origin of NAM in the year 1969. On Sunday, January 26, 1969, a group of minority mathematicians met together as a caucus at the Joint Winter Mathematics Meetings of the AMS (American Mathematical Society) and the MAA (Mathematical Association of America) in New Orleans, LA. The following individuals were present at that meeting:

## The seventeen (17) who met in New Orleans; January 26, 1969 (listed alphabetically): <br> 1. James A. Donaldson,

2. Samuel Douglas,
3. Henry Eldridge,
4. Thyrsa Frazier,
5. Richard Griego,
6. Johnny L. Houston,
7. Curtis Jefferson,
8. Vivienne Mayes,
9. Theodore Portis,
10. Arbeligic Rodriquez,
11. Charles Smith,
12. Robert Smith,
13. Beauregard Stubblefield,
14. Henry Taggert,
15. Walter Talbot,
16. Harriet Walton,
17. Scott Williams,

University of Illinois/Chicago
Grambling College
Fayetteville State College
Central State University
University of Mexico/Albuquerque
Stillman College
Cuyahoga Community College
Baylor University
Alabama State University
Bishop College
Paine College
Pennsylvania State University
Texas Southern University
Jarvis Christian College
Morgan State College
Morehouse College
Lehigh University

These persons may be referred to as the first organized caucus of NAM members. This group discussed some of the concerns of minority mathematicians, problems relevant to mathematics education and mathematics educators at Traditionally Black Institutions (referred to in the sequel at TBI's); and decided to organize as a group. The group selected an acting president: Johnny L. Houston and a corresponding secretary: Vivienne Mayes. Minutes were recorded, tasks were assigned, and the group agreed to hold a follow-up meeting in January 1970 at the Joint Winter Mathematics Meetings of the AMS and the MAA.

## B. 1970 --- SAN ANTONIO

A much larger group of more than 50 individuals met in San Antonio, Texas on January 24, 1970 and great strides were made concerning the ideas that had been discussed in the New Orleans Meeting. Johnny L. Houston was not able to attend this meeting because he was attending Purdue University as a doctoral student; however, the activities of the New Orleans Meeting had been conveyed to this group. This larger group selected a larger Executive Committee to achieve the following purposes:

1. Devise a mechanism to affect a representative organization;
2. Identify/prioritize the mathematical concerns of the group;
3. Identify and define the goals and objectives of the organization that was to be formally structured;
4. Secure the initial operating funds for supporting a formal organizational structure.
5. Secure initial funds necessary for beginning operations;
a. Seek the assistance of HEW, NSF and other appropriate foundations.
b. Carroll, James, Joseph and Stubblefield were appointed to the Fundraising

Committee
6. Develop and print a Directory of Black Mathematicians;
7. Develop mechanisms for the exchange of information with regard to:
a. Research
b. Successful projects
c. Assistance for students in the pursuit of a mathematical education or career.
d. Unique or proven instructional materials that were being used by math professionals.
e. Encouragement and assistance in the process of attracting a greater percentage of black mathematicians to teach in Predominantly Black Institutions (TBI's).
8. Promote greater participation of members in national and local meetings of mathematicians, i.e., encourage the presentation of research papers, participating as panelists, etc.
9. Work toward the creation of at least one "Center of Excellence" at a Predominantly Black Institution in specific disciplines.
10. Develop an organizational structure for the group. The persons appointed to the Structure Committee were Bradley, Martin, Rugley and Vance.
11. Promote the Wyoming Meeting being coordinated by Walter Talbot and promote the new organization that would later become NAM.

This newly elected Executive Committee consisted of Lillian Bradley, Edward M. Carroll, Frank James, James Joseph, Benjamin Martin, with Irvin Vance presiding as chair, and Vera C. Rugley serving as recorder. The Executive Committee met January 25 and 26, 1970 and began its work.

## C. APRIL 1970 --- WASHINGTON, DC

The Fund-raising Committee of the caucus and of the Executive Committee met in Washington, D.C. on April 2, 1970 at the National Meeting of NCTM (National Council of Teachers of Mathematics). The Committee was successful in securing the cooperation of the Institute for Services to Education and funds through the Southern Education Foundation to have a plenary conference. Persons in attendance of the Fundraising Committee meeting in Washington were Bernis Barnes, Edward Carroll, Frank James, Irvin Vance, and four or five other black mathematicians who participated at least part of the time (especially James Joseph).

## D. JUNE 1970 --- WASHINGTON, DC

On June 19-21, 1970, the Executive Committee was invited to Washington, D.C. for the purpose of:

1. Developing plans for a national organization, representative of mathematics departments at TBI's;
2. Effecting a vehicle (National Conference) for establishing this organization.

Persons constituting this Committec consisted of Bernis Barnes, Lillian K. Bradley, Edward Carroll, Etta Falconer, Fred Humphries, Frank James, Benjamin Martin, Beauregard Stubblefield and Walter Talbot. During the Plenary Committee meeting in Washington, D.C., a number of significant issues were resolved. Eight objectives were agreed upon for the new organization; programs were identified to accomplish these objectives; the general structure of the organization was outlined and Pro Tem Officers were selected to initially direct the new organization consisting of the following:

| President - | Frank James |
| :--- | :--- |
| 1st Vice-President - | Walter Talbot |
| 2nd Vice-President - | Edward Carroll |
| Recording Secretary - | Etta Falconer |
| Treasurer - | Lillian Bradley |
| At-large Institutional Representative from Black Colleges - | (open) |
| At-large Non-black Institution Representative - | Irvin Vance |
| Coordinator of Activities - | Benjamin J. Martin |
| Executive Secretary - | Bernis Barnes |
| (ex-officio) |  |

Moreover, three committees were established:
Committee on Proposals--Talbot, Clarkson, Barnes, and Humphrics: Committee on Communications--Barnes, Martin, Carroll, and Stubblefield: Committee on Resources--Stubblefield, Martin, Talbot and Carroll; and a timetable for events was developed.

## TIMETABLE

August 1, 1970
October 1, 1970
November 1970
December 15, 1970
Spring 1971

Complete contact of State and Regional Representatives Complete contact of Institutions by State Representatives
(first week) Hold Intermediate Conference Complete election of Institutional Representatives Hold National Conference

The first two items on the Plenary Conference timetable occurred very much as planned. However, the Intermediate Conference did not occur until the weekend of January 9 and 10, 1971 in Atlanta, Georgia.

## E. 1969-1970, RELATED CONFERENCES AND MEETINGS

Prior to January 1971, there were several related conferences (in addition to those previously discussed) that impacted greatly upon the carly beginnings of NAM. The first was the Morgan State Conference held in Baltimore, Maryland in October 1969 under the directorship of Walter Talbot. Although the purpose of this conference was designed to concern itself with basic mathematics curricula (for TBI's), many of the concerns that were voiced in New Orleans were heard at this conference. There were approximately forty (40) persons in attendance at this conference.

On April 18 and 19, 1970, the Memphis Conference was held in Memphis, TN. The Conference was sponsored by MAA through CUPM (Committee on Undergraduate Programs in Mathematics). However, it was planned with the cooperation of an ad hoc "Panel on Special Problems of Minority Groups" with chairman I. N.Herstein. Approximatciy fifty (50) persons attended: the issues introduced at the New Orleans Meeting (Jan.1969) and the San Antonio Miceting (Jan. 1970) were discussed.

The Wyoming Conference, CMDC (Conference on Mathematics at Developing Colleges) was held in Laramie, Wyoming on August 17-22, 1970. This Conference was the result of an effort by the CADC (Committee on Assistance to Dovcloping Colleges) and a follow-up of the Morgan State Conference. This conference was coordinated by Frank Stewart and Walter Talbot with approximately fifty (50) persons in attendance.

## F. AUGUST 1970 --- LARAMIE, WY MEETING; THE NAME NAM WAS SELECTED

Members of the CMDC who were connected with Traditionally Black Institutions, or who were black mathematicians met at 7:00 p.m. on August 19, 1970 in the Washakic Center, University of Wyoming. Their purpose was receiving information for the planning of a national organization of such mathematicians and mathematics departments at Traditionally Black Institutions. A brief history of the developments which had been discussed at the New Orlcans and San Antonio meetings was giveri. A report was made of the most recent efforts of the Plenary Conference in Washington: giving the purposes and programs of the organization. An explanation of the national structure, the crucial roles of the state and regional institutional representatives were also shared.

It was noted that a directory of black mathematicians was being compiled by the organization. Additions to the list were to be sent to Etta Falconer, Spelman Collcge, Atlanta, GA 30314. After explaining that such an organization would be an effective means for dealing with some of the problems in these institutions that were not being addressed by existing organizations and that this new organization would in no way attempt to supplant these existing organizations, Frank James, Chairman, opened the floor for discussions.

The organization was enthusiastically supported by those present with no one expressing disapproval. The body selected as the name of the organization: The National Association of Mathematicians (NAM). The body agreed upon the slate of Pro Tem officers and recommended institutional, as well as individual, memberships. It was moved by Wilhemina Bishop that those in attendance, along with the developers, be the charter members of NAM. The motion was passed.

The question of financing NAM was raiscd. The chairman stated that it was anticipated that major financing would come from federal and foundation funds. However, membership dues would be expected to support communications and other minor expenses. Several persons saw the need for immediate funds to support communication prior to the final state of development; donations were made.

Those present agreed to commit themselves to the support of NAM and to engage in soliciting the support of their colleagues. The members present who pledged their support were: Bernis Barnes, Wilhemina W. Bishop, Willic S. Black, Betive J. Williams, Ian Williams, L. K. Bradley, Arthur E. Bragg, W. E. Brodie, W.H. Christian, Llayron L. Clarkson, Geraldine Darden, Samuel H. Douglas, Etta Falconer, Pearlie M. Gassaway, Frank T. Hawkins, Frank A. James, J. Arthur Jones, Jessie Lewis, Benjamin J. Martin, E. H. Moore, Virginia K. Nowcil, Miriam F. Quinn, Socrates W. Saunders, Thomas I. Sharpe, Walter R. Talbot, John Urguhart, Richie D. W. White, and Vernon Williams.

## G. JANUARY 1971 --- STAGE 5, THE FIRST ATLANTA MEETING, NAM'S FIRST IMMEDIATE CONFERENCE: REGIONAL AND STATE REPRESENTATIVES

When the Plenary Conference was held in Washington, D.C., the previous, present and past meetings associated with NAM's development were identified by stages:

$$
\begin{array}{ll}
\text { Stage 1- } & \text { New Orleans, January } 1969 \\
\text { Stage 2- } & \text { San Antonio, January 1970 } \\
\text { Stage 3- } & \text { Washington, April 5, 1970 } \\
\text { Stage 4- } & \text { Washington, June 19-20, 1970 } \\
\text { Stage 5- } & \text { Atlanta, January 9-10, 1971 }
\end{array}
$$

The National Association of Mathematicians (NAM) held a conference, Stage 5 Conference of Mathematicians (S5CM), in Atlanta, GA on January 9-10, 1971 at Paschal's Motor Hotel. The purpose of the conference was to activate the state and regional representatives of NAM and to move toward complete organization. Participating in the Conference were: Osifield Anderson (FL A\&M U.), William Bakker (Spelman College), Arthur E. Bragg (Dclaware St. College), Bernis Barnes (Institute for Services to Education), Wilhemina Bishop (Fayetteville St. College), Lillian K. Bradley (TX Southern U.), Brenda E. Brown (Washington, D. C.), W. E. Brodie (Paine College), Edward Carroll (New York U.), Llayron Clarkson (TX Southern U.), Geraldine Darden (Hampton Institute), Samuel Douglas (Grambling College), John Dubriel (Ft. Valley St. College), James Ellis (Langston U.), Gladys Glass (Spelman College), John Hall (Clark College), Carolyn H. Harris (Clark College), Tommie Ann Hill (Spelman College), Frank A. James (Grambling College), Roland Jackson, III (Tuskegee Institute), Rosa B. Johnson (Albany St. Collegc), Eleanor G. Jones (Norfolk St. College), J. Arthur Jones (FL A\&M U.) James Joseph, Jr. (Federal City College), Nancy Lane (National Urban League), Ralph Lce (Queens College), Richard L. Mays (Little Rock, Arkansas), Benjamin Martin (Southern U.), Etta Falconer (Spelman Colloge), Jimmy L. Ramsey (Albany St. College), Louis Richards (VA St. College), Keith Rose (Morehouse College), Beauregard Stubblefield (Institute for Services to Education). Theodore Sykes (Fisk University), Ethel Turner (Cheyney State College), Virginia Newell (Winston-Salem State College), Irvin Vance (Michigan St. U.), Harriet Walton (Morehouse College), Richie D. White (Fort Valley St. College), Lloyd Williams (Atlanta Univ.), and George W. Wimbush (Virginia St. College).

Stage 5 Conference of Mathematicians was opened with a welcome to the participants by Benjamin Martin. Irvin Vance then traced the history of NAM from what might be referred to as its inception in Houston in January 1967, through significant phases in New Orleans in January, 1969 and San Antonio in January, 1970, to a meeting of the Fund Committee in Washington in April, 1970. Bernis Barnes then gave history from Memphis Conference in April, 1970 through the Plenary Conference in Washington in June, 1970 and the Laramie Conference in August, 1970. Finally, Samuel Douglas summarized the work of the Committee on Center of Excellence. A proposal for the Center was to have been jointly written by CUPM, NAM and AMS.

A report of the membership drive was given by the state and regional representatives, with a total membership of 132 (from 15 states) reported. Here, we list the number of members from each state followed by that state's or region's representative: Alabama (8)--Roland Jackson, III; Arkansas (6)--Oliver Shannon; Delaware (1)--Arthur Bragg; FL (16)--Osifield Anderson; GA (18)--Etta Falconer; Indiana (4)--W. E. Brodie; Louisiana (36)--Benjamin Martin; Maryland (4)--Socrates Saunders; Mid-West (4)-Irvin Vance; Oklahoma (2)--James Ellis; Pennsylvania ( 7)--Ethel Turner; Tennessee (9)--William Fletcher; Texas (15)-Lillian Bradley; Washington, D. C. (1)--James Joseph, Jr.; W. Virginia (1)--Andrew Aheart.

## H. JANUARY 1971 --- ATLANTA MEETING, NAM's PRESIDENT ADDRESS

Frank James addressed the group on the plans for S5CM and the role of the state and regional representatives. He stated that the purposes of the conference were to mobilize the state and regional representatives, to extend work toward complete organization, and to plan for a National Conference. Presented below is the basic text of his presentation.

## Excerpts From The President's Address

"Stage 5 Conference of Mathematicians is held for the purpose of activating the state and regional movements of NAM and extending efforts toward complete organization. This conference is attended by state and regional representatives, the Executive Committee, and other members of NAM. S5CM was made possible by a grant from the Southern Education Foundation.

NAM is a vital organization for mathematics departments in Traditionally Black Institutions. The principal purpose of NAM, as brought forth in the Plenary Conference, is
to identify problems relevant to mathematics education of blacks as well as to mathematics educators of blacks, to seek solutions to these problems. to work for continued support of Traditionally Black Institutions (TBI's), to promote the prevailing admirable image which blacks have of these institutions, and to increase the awareness of the posture of blacks on important issues pertaining to blacks.

The structure of the national organization shall be under the direction of the following officers, until such time that a national election shall determine others.

> President --Frank A. James
> First Vice President --Walter Talbot
> Second Vice President --Edward Carroll
> Recording Secretary --Etta Falconer
> Treasurer --Lillian Bradley
> At-Large Non-Black
> Institutional Representative --Irvin Vance
> Executive Secretary --Bernis Barnes
> Coordinator of Activities --Benjamin Martin

We hope to realize full mobilization of the state and regional representatives and to move toward complete legal organization at this Conference. Our present design is to work in four small groups during the afternoon session.

| Group I | Charter and By-Laws |
| :--- | :--- |
| Group II | Financing |
| Group III | Future Activities |
| Group IV | Position in Regard to other Professional Groups |

It is requested that each group appoint or elect a chairman and recorder and make a report of the group's activity. These reports will be discussed in the general session."
"The need for a viable organization of mathematicians and of mathematics departments in Traditionally Black Institutions is quite evident. In 1969 approximately 3.4 billion dollars were spent in education, but only 30 million went toward education in the black institutions. Blacks make up $12 \%$ of the national population, but occupy only $6 \%$ of the positions in higher education. According to the Talbot Poll, fewer than one out of every four members of these departments are active in any professional organization. The question is WHY? We must fortify our state and regional representatives in order to intensify the membership drive at this crucial time. We must plan for a national conference in order to solidify into a cohesive, potent force.

There are four possible categories of membership we should consider: Individual, Institutional, Associate Individual and Associate Institutional.

Let us also consider some political aspects of our organization.

1. We must influence legislation of economic relevance to TBI's.
2. We must facilitate the flow of information concerning matters pertinent to mathematics education at TBI's.
3. We must encourage increased activity in the mathematics departments at these institutions.
4. We must devise means of enforcing positive recognition
5. We must work toward the demolition of the isolation factors.
6. We must develop research and encourage publications.
7. We must seek professional memberships and involvement at all levels.
8. We must influence greater acquisition of positions on all policy making boards and bodies that have an effect upon our institutions.

May I invite you to accept the challenges before us. With these remarks, let us begin the work of S5CM."

## I. JANUARY 1971 --- THE ATLANTA MEETING, ACTIVITIES AND ACTIONS; (ALSO, ADDITIONAL EXCERPTS - NAM's PRESIDENT ADDRESS)

1. Llayron Clarkson informed the participants of the increased efforts toward teacher certification for college teachers. He urged the participants to become aware of this issue and its possible effects upon their mathematics departments, and to take a definite stand in this regard.
2. Nancy Lane described a program, the Black Executive Exchange Program (BEEP), sponsored by the National Urban League. The purpose of this program is to expose college students to black men and women employed as executives in industries and businesses dominated by whites. A participating college offers a course for credit and this course is taught by black executives, with all costs assumed by the industry or business. For a college to participate in BEEP contact Nancy Lee, National Urban League, New York City.

## 3. Small Group Discussions:

Following the previous presentations, the Conference broke into four small groups:
Group I Charter and By-Laws
Group II
Group III
Financing NAM
Group IV
Future Activities
NAM Relative to Other Mathematical Organizations

## 4. The General Session of The Atlanta Meeting

A general session followed in which group reports were made with subsequent discussions by the participants of the Conference. Eldridge McMillan of the Southern Education Foundation was present at this session.

Group I drafted a set of By-Laws. Attorney Richard Mays worked with the group, giving advice that would be instrumental in the chartering of NAM as a non-profit organization. Major changes were made in proposed qualifications for membership and for the officers of the organization.

Group II named sources of funding, recommended that the organization be chartered in Washington, D. C. and recommended a Finance and Proposal-Writing Committee. Several questions were raised as to the location of the national office and the composition of this committee. The discussion was tabled until further study could be made of these questions.

Group III recommended that NAM set up machinery in terms of a committee to follow through on the objectives stated in the Plenary Conference Report and other specific suggestions made by the group itself. It recommended that membership be extended to high school mathematics teachers, undergraduates and graduate students.

Group IV recommended the appointment of sub-committees to look further into the ties of NAM and other mathematical organizations, to seek representation of NAM on the National Conference Board, and to seek recognition of NAM by the new organization of Black College Presidents (NAFEO).

The Strategy Session of S5CM began at 9:30 a.m., January 10. Frank James informed the participants that this session would be devoted to a consideration of two topics: (1) The position of NAM relative to the Office of Awareness Proposal as well as other matters of concern to the mathematics department at TBI's; and (2) The roles and responsibilities of the state and regional representatives.

There was a discussion of the present state of affairs with the Office of Awareness Proposal. There was a general feeling of dissatisfaction with the role of NAM in the proposal. Benjamin Martin voiced the only moderate opinion, stating that NAM should consider seriously the implications of its position before taking any action which might lower the chances of the proposal being funded, regardless of whether NAM receives its just credit. He further stated that certain actions taken on the part of NAM can leave our motives in question, as to whether we want to help mathematics departments, or to take control.

It was moved by Bernis Barnes and seconded by Virginia Newell that:
The Executive Committee should serve as a monitoring committee for the Office of Awareness Proposal, and if NAM was not granted equal partnership in the proposal, that a letter be sent to the funding agency rejecting the financial support of the proposal.

An amendment to the motion was offered by Theodore Sykes:
The Executive Committee should serve as a monitoring committee for any matters of concern to the members of NAM and take whatever action deemed necessary in the name of the organization.

The motion as amended was carried 18-2.

## a. An Initial Definition of Membership for NAM

The question of membership was raised by Irvin Vance, James Ellis and Roland Jackson, III. There was some feeling, though not unanimous, that high school mathematics teachers should be included in the organization. The President ruled that high school mathematics teachers are not excluded from membership. However, he made it clear that the first duty of the state or regional representative is to solicit membership from mathematicians and mathematics educators involved in higher education, and the secondary duty was to solicit institutional memberships.

## b. An Initial Discussion of the Role of State and Regional Representatives

The participants engaged in a discussion of the roles of the state and regional representatives and offered the following suggestions in carrying out these roles:
i. Make a visit to all institutions in their states and make personal contact for memberships. (Virginia Newell)
ii. State representatives should secure the aid of a liaison person in each institution. This person could receive a temporary appointment as institutional representatives. (J. Joncs)
iii. An eye-catching propaganda brochure should be prepared and be made available to state and regional representatives for distribution. (Theodore Sykes)
iv. A Public Relations Committee should be appointed by the President. Virginia Newell expressed disappointment over the lack of news coverage at 55 CM .
v. A list of institutions in the state should be made available to the state representative. Some references were made to Plans for Progress and a pamphlet prepared by Tuskegee Institute.

## c. Other Discussions and Resolutions

Frank James initiated a review of black representation on lecturers' and consultants' lists of MAA, AMS, and SIAM and requested action by the group on the selection of qualified members of NAM for recommendation to these lists. The following resolutions were passed: it was moved that NAM generate a list of lecturers and consultants; it was moved that NAM try to influence the selection of persons as lecturers and consultants for professional organizations who would be of the grcatest benefit to the mathematics departments at Traditionally Black Institutions.

Arthur Bragg informed the participants of the discussion of teacher certification at the Philadelphia Sectional Meeting of MAA. No action was taken by the group; there were reservations about certification.

## d. The Executive Committee appointed the following committees.

Awareness \& Position (or Watch) Committee National Conference Committee

James Joseph, Jr.
Theodore Sykes
Lillian Bradley
Etta Falconer

Public Relations Committee
Virginia Newell, Chairman
Theodore Sykes
J. Arthur Jones, Chairman

Benjamin Martin
Geraldine Darden

## Lecturers $\boldsymbol{\&}$ Consultant Committee

Louis T. Richards, Chairman
Bernis Barnes

## e. Epilogue, January 1971 Atlanta Meeting - Foundations for the Incorporation of NAM

As envisioned in the early planning, Stage 5 Conference played a significant role in the history of NAM. It was the beginning of an agenda of action and not just planning for NAM. Persons representing forty (40) institutions from sixteen (16) states met and finalized plans for incorporating NAM as a viable non-profit organization in the mathematical sciences community. The primary interest was providing a mechanism to confront and seek solutions to problems that prevail for mathematical scientists and educators as well as students of mathematics at Predominantly Black Institutions of higher learning. An immediate result of this Conference was a very productive National Meeting of NAM (the first) on August 20-21, 1971, in Atlanta, Georgia.

Frank James, in his closing remarks, thanked all participants for a job well-done and requested that they make every effort to attend the Atlantic City Meeting. He urged state and regional representatives to continue the membership drive. He informed the group that the Executive Committee would take immediate action on all matters raised by the body and welcomed letters of individual response to the conference. The conference was officially adjourned.

## J. AUGUST 1971 --- PROGRAM OF NAM'S NATIONAL MEETING IN ATLANTA AUGUST 20-21

\author{

Paschal's Motor Hotel <br> Friday, August 20, 1971 - Morning Session - Frank James, presiding. <br> 9:30-10:30 Business Session <br> Agenda: 1. Distribution and discussion of By-Laws and Charter <br> 2. Types of membership <br> 3. Future meetings <br> 4. Newsletter <br> 5. Consulting panel on proposal writing <br> 11:00-12:00 How Not to Write a Proposal <br> Panelists: J. Arthur Jones, Benjamin J. Martin, Louis Richards <br> Afternoon Session - G. C. Darden, presiding <br> | 2:00-2:30 | Presentation on Mathematics Education - Wade Ellis |
| :--- | :--- |
| 2:30-3:00 | Open discussion of Mathematics Education |
| 3:15-4:00 | President's Message - Frank James |
| 5:00 | Outing at Lake Spivey | <br> Saturday, August 21, 1971 - Morning Session - Lillian Bradley, presiding <br> 9:00-9:45 Discussion of Programs for Immediate Implementation <br> 10:00-11:00 Lecture: Rogers J. Newman <br> 11:15-12:15 Computer Oriented Mathematics - Carl Whitman <br> 2:00-3:00 Business Session - Frank James, Presiding <br> Partial Agenda: Report of Treasurer, Report of Secretary, Report of Committees

}

## K. AUGUST 1971; SUMMARY OF ACTIVITIES OF THE NATIONAL ATLANTA MEETING

a. The final version of the By-laws and charter was presented by Benjamin Martin.
b. The next national meeting was planned for November 1972. An informal meeting could occur in Las Vegas in January 1972. State meetings should be held before the next regular national meeting.
c. A report of the Finance and Proposal Writing Committee was made by Beauregard Stubbleficld. He listed the projects at TB1's that had received funding.
d. Louis Richards presented a list of lecturers and consultants, with biographies available through NAM
e. It was proposed that the Newsletter be published at least twice a year. If the amount of material submited warrants it, special issues would be produced.
f. The Treasumer reporicd a balance of $\$ 167.96$ in the bank account and $\$ 1000$ in savings. The Secretary reported a total of 229 members.
g. The President appointed a nominating committee, a national meetings committee, a consulting pancl on programs and a coordinator of state representatives.
h. A report was given by Theodore Sykes for the Publicity Committee. Brochures were made available to members.
i. Wade Ellis spoke on Problems in Mathernatics Education as they relate to blacks. He stated that one of the principal problem is that we start too late. The difficulty lies before high school and even before elementary school. We must develop promising approaches to teaching children mathematics and consider the high correlation between the success a student has in mathematics in higher education and his attitude toward and success in arithmetic. We must develop the subject matter competency of the elementary school teachers. We must seek to foster the promising development of the junior community colleges. We must become acquainted with the new degree, the Doctor of Arts with its emphasis in teaching and synthesis rather than analysis.
j. Carl Whitman gave a presentation of Computer-Oriented Mathematics. This was followed by a discussion of its relationship to blacks. It was conceded that blacks were not very involved in the program. They had been asked for suggestions, but not to participate in the writing or the actual program. It was pointed out that the cost was prohibitive for most TBI's.
k. Rogers Newman gave a lecture on Approximations with Tchebycheff Polynomials to Capacity:


#### Abstract

Let $E$ be a closed bounded infinite set in the plane, and let $t_{n}(z)$ be the Tchebvcheff polynomial of degree N for E . Then $\mathrm{t}_{v}(z)$ is of the form $t_{n}(z)=z^{n}+a_{z} z^{n-1}+\ldots+a_{n}$, and is such that max $t_{n}(z)$ and max $p_{n}(z)$ for every polynomial $p_{n}(z)=z^{n}+b_{1} z^{n-1}+\ldots+b_{n}$. It is well known that $t_{n}(z)$ exists for such sets $E$ for each integer $n>1$, and that it is unique. Let $m_{n}=\max t_{n}(z)$, and let $p_{n}=m$. Then $\lim p_{n}$ exists. Again, let $V_{n}$ be the maximum absolute value of the Vandermonde determinant for all possible choices of $n$ distinct points $z_{1}, z_{2}$. . $\ldots, z_{n}$ in $E$. Also let $d_{n}=V_{n}{ }^{2}$. Then [din] is a monotone non-increasing sequence, which approaches a limit $\mathrm{t}(\mathrm{E})$. It was shown that $\lim p_{n}=\lim d_{n}-t(E)$. The quantity $t(E)$ is variously known as the capacity, transfinite diameter, and exterior mapping radius of $E$. The meaning and implications of these entities were discussed.


1. Robert Walker spoke on the Funding Patterns of NSF and pointed out all recent changes in programs. He made literature available.
m. Following a summary (updated with estimates on 1971) of the role of teachers in TBI's in NSF College Teacher programs as participants:
1968132 teachers (TBI's), 22 in mathematics (totals 4020,763 respectively)
1969 No data
197095 teachers (TBI;s), 27 in mathematics (totals 2900, 604 respectively)
1971 (est) 117 teachers, 35 in mathematics (totals 3200,500 respectively)
n. The President led the group in a discussion of programs for immediate implementation. These were:
i. Visiting Lecturers Program.
ii. Summer Institutes dealing with the problems in mathematics as specifically related to blacks.
iii. Employment Opportunities.
iv. New Innovative ways of teaching. Hold a 2-day conference for dissemination of information.
v. Increasing the number of Blacks in Mathematics
vi. Discussion of the Office of Awareness
o. A Panel composed of J. Arthur Jones, Benjamin Martin and Louis Richards discussed Writing Proposals. Twenty-four (24) specifics points were shared.

## 2. Committee Reports

a.. Treasurer's Report (Summary, Lillian Bradley)

Income
Dues and gifts to date: $\$ 1215.00$
Registration fees: $\quad 74.00$
Total:
$\$ 1289.00$
Disbursement
$\$ 503.10^{*}$
Balance
\$ 785.90
*Note: Incorporation expenses amounting to $\$ 393.00$ were included.

## b. Public Relations Committee Report (Ted Sykes)

Since the January meeting of 1971, the Public Relations Committee has prepared a brochure setting forth the purpose and aims of the organization. These brochures were distributed at the Atlanta meeting. Announcements were released to several radio and TV stations. The response was poor (possibly due to the lateness of the release). In the future the committee would be temporarily expanded to include a member who resides in the location designated for NAM meetings. Hopefully such a member will make early contact and releases to local news media. If supply lasts, we will include brochures in the next newsletter for comments and use by members.

## c. Communications Committee (Ben Martin)

The Communication Committee made two mailings: one newsletter and a letter to state representatives. A request was made that the requirements for hosting a meeting of MAA/AMS, which were included in that newsletter would be printed again in the next issue. Plans were made to honor that request. Efforts were made to ascertain the attendance that could be expected at the first annual meeting and to identify topics of discussion that would be of greater interest. With these topics in mind, Gerri Darden and Ben Martin designed the program for the annual meeting. The Committee was pleased with the response of all who were asked to participate. No one refused his/her assignment and everyone agreed to cover his/her own expenses. The Committee thanked all of those involved in these endeavors.
3. Report on the Status of Incorporation of NAM (by Ben Martin)

The Executive Committee decided to incorporate the organization in Georgia, rather than Louisiana, as originally planned (since no officer resides in Louisiana). To expedite the proceedings it was decided that the documents be drawn up by a lawyer. (Mr. J. L. Jordan was contacted in October and retained for $\$ 300$ in November.) The incorporation papers were sent to the Secretary of the State of Georgia shortly thereafter. Final positive action by the State was taken on January 13, 1972. The address given in the Incorporation Document was Box 4, Morehouse College, Atlanta, Georgia 30314 (same address used by Ben Martin).

## 4. Future Plans of Meetings

a. If you are able to attend the meetings at Las Vegas, watch for an announcement of an informal meeting of NAM members (and others interested). Time and place would be put on the central bulletin board.
b. A meeting of the Virginia region of NAM has been called for Saturday, February 5, at Norfolk State College. Details for the program will soon be available from Eleanor Jones; Norfolk State College. All members invited.
c. There is some interest in calling a regional meeting of NAM in Atlanta; Spring of 1972. If you would like to see this happen, write Ben Martin at Morehouse and include comments about possible program topics and dates.
d. The next (second) annual meeting has been planned for next Fall (1972) in November. NAM is waiting for suggestions of host institutions. Send details of accommodations and desired date to Roland Jackson, III, Dept. Of Mathematics, Tuskegee Institute, Tuskegee, Alabama 36088.

## 5. List of Participants at Atlanta Meeting

Israel E. Glover; Roland Jackson, III; Mrs. W. H. Christian; Henry M. Eldridge; Lloyd A. Gavin; Robert P. Walker; Geraldine Darden; Frank A. James; Charlotte Thomas; Benjamin Martin; Willie Bee Rajonna; J. Arthur Jones; Carl Whitman; L.K Bradley; Etta Falconer; Socrates Saunders; W. E. Brodies; S. S. Sachdev; Gladys Glass; Sonde Nwanhpa; Richie White; Samuel Masih; Wade Ellis; Grady Nelson, Louis Richards, Pete Wilson; S. W. Anderson; R. B. Johnson; T. R. Sykes; C. K. Dunson; B. Stubblefield; Diane DeCoursey; Eleanor Jones; Bernis Barnes; John Hall; John Dubriel; Lolo Strauss; Rogers Newman.

## L. EXCERPTS OF A LETTER (12/31/71) FROM NAM'S PRESIDENT-FRANK JAMES; TO NAM'S MEMBERS:

"Less than two years after our caucus at Convention Center, San Antonio, Texas, in January, 1970, we have: (1) achieved recognition by other professional organizations, funding agencies, and mathematics departments at TBI's; (2) established goals and objectives for NAM; (3) influenced representation on decision making bodies, and (4) held several meetings. This a is remarkable achievement record, to say the least. I take this opportunity to extend congratulations to each of you for your efforts.

Yours most sincerely
Frank A. James
President, NAM

## M. 1972-74 THE MAJOR ACTIVITIES OF NAM

After the first National Meeting of NAM, the organization continued to discuss its objectives annually. However, 1972-74 was not as productive as some had hoped, yet the enthusiasm and commitment of a select number of members of NAM never waned. Following are the highlights of those years.

1. January 13, 1972: NAM was legally incorporated in Georgia
2. February 19, 1972: A Called Meeting of NAM Atlanta (Paschal's)
3. November/December, 1972: First National Election of NAM planned
4. April 1, 1973: NAM's First National Election (by mail ballots)

April 1, 1973 --- Mail Ballot Results: Persons Elected
a. President: Theodore Sykes, Fisk University
b. V. President: Japheth Hall, Stillman College
c. Secretary-Treasurer: Geraldine Darden, Hampton University
d. Editor: Eleanor Jones, Norfolk State University
e. Board Members-At-Large: Walter Talbot, Morgan State College

Frank James, Univ. of Ark- Little Rock
Their two year terms were from 1973-1975.

## 5. 1974 Activities

a. The various Committees of NAM worked on appointed tasks and projects.
b. On November 2, 1974 the Executive Committee of NAM met at Norfolk State University and outlined the beginning of some major trends for NAM as an organization.

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## NAM's Honorees for Named Lectures/Presentations



Evelyn Boyd Granville
(1924 - )


William W. S. Claytor
(1908-1967)

J. Ernest Wilkins (1923 - )


Marjorie L. Brown (1914-1979)


David Blackwell (1919 - )


Albert T. Bharucha-Reid
(1930-1985)


Right: Fern Hunt (1977)


Nathaniel Dean (1998)


Right: David Blackwell (1994)

## Blackwell Lecturers



Donald St. Mary (1995)


Center: Johnny L. Houston (1996)

## J. Ernest Wilkins Lecturers




Tepper Gill (1994)


Ronald Mickens (1996)


Dennis Davenport (1998)

## Bharucha - Reid Lecturers



Teresa Edwards (1997)


William A. Massey (1999)

## Granville - Browne Presenters



## CHAPTER III: THE DEVELOPMENT OF NAM AS AN ORGANIZATION OF QUALITY: 1975-1989

## ***** HIGHLIGHTS*****

This chapter recounts the decisions made, the actions taken and the course charted that proved to be prudent for NAM becoming a viable and quality non - profit organization in the mathematical sciences.

## A. THE YEAR 1975

1. 1995 January; Washington, DC

NAM held its first Annual Meeting with the Joint Winter Mathematics Meetings of the AMS - MAA on Saturday January 25, 1975 (Business Meeting) in the Heritage Room of the Shoreham Hotel and on Sunday January 26, 1975, (NAM's Panel) in the Diplomat Room of the Shoreham Hotel.
2. 1975 April 5, Charlotte, NC

A special Executive Committee Meeting of NAM was held. The following actions were taken:
a. NAM's Executive Committee was renamed NAM's Board of Directors
b. Johnny L. Houston (Savannah State College) was selected as NAM's first active Executive Secretary
3. 1975 October, Second National Election (Mail Ballot Election) was held
a. President: Japheth Hall, Jr.; Stillman College
b. V. President: Eleanor Jones; Norfolk State University
c. Sec.-Treasurer: Geraldine Darden; Hampton Institute
d. Editor: Virginia K. Newell; Winston Salem State University
e. Members-At-Large: Benjamin Martin; Morehouse College

Louis Richards, Virignia. State University

## B. THE YEAR 1976

1. January, San Antonio, Texas

NAM held its second Annual Meeting with the Joint Winter Mathematics Meetings of AMS-MAA on January 25-26, 1976.
a. 25 January: A Meeting of NAM's Board of Directors
b. 25 January: Two Invited Addresses were given by
i. Louis Dale, University of Alabama-Birmingham
ii. Japheth Hall, Jr. Stillman College
c. 26 January: A Business meeting of NAM's membership was held.
2. February, NAM's Second Nationai Office/Headquarters Designation

NAM established Atlanta as its official Address: P.O. Box 10766, Atlanta, GA 30310
(NAM's Executive Secretary relocated to Atlanta at Atlanta University in September 1975.)
3. April, NAM's Restated Articles of Incorporation were filed with the Secretary of State in GA (NAM files restated articles to quality for 501 (e) (3), (c) Federal Tax Exempt)
4. Aprii, Charlotte, NC; NAM's Board of Directors Meets
(Board's Five Standing Committees Organized)
a. Program Activity
b. Publication of Publicity
c. Resources and Special Programs
d. Membership-Buaget/FundRaiser
e. Legislation and Nomination
5. May, Japheth Hall, Jr, Resigned NAM's Presidency Samucl Douglas was chosen by the Board of Directors to complete Hall's Term
6. August, Howard University began implementing a Ph.D. degree Program in Mathematics. It was the first TBI/HBCU to offer such a program (Efforts were led by James A. Donaldson, Dept. Chair, Assisted by J. Ernest Wilkins, Jr.). Although Howard University and NAM are two distinct entities, it is the author's belicf that NAM's strong support for developing Centers of Excellence at TBI's had some indirect influence upon the movement and support that led to Howard's success in developing a Ph.D. Program in mathematics. NAM applauded all those at Howard and elsewhere who worked so hard to help make this program a reality. It was, indeed, a giant step of progress in the mathematical sciences community.
7. Noveriber, NAM receives Federal ID-Number XXXXXXXXXXX which quainfied NAM for 501 (e) (3), (c) Federal Tax Exempt Status.

## C. THE YEAR 1977

1. January, NAM held Third National Meeting at Joint Winter Mathematics Meetings of the MAA-AMS in St. Louis, MO
a. 27 January: NAM's Invited Address: Raymond Johnson, Howard University
b. 27 January: NAM's Board of Directors: Regional/State Representative Meeting
c. 28 January: NAM's Panel
"Teaching Mathematics-Success Oriented Learning Principles and Techniques" Louis Richard-Moderator's Panelists
Edward Carroll (New York Univ), John E. Hall (Clark College)
Frank Hawkins (Prairie View A \& M Univ) and Grady Nelson (Livingston College)
29 January: Luncheon Honoring Lee Lorch; (Organizer: Vivienne Mayes)
2. April, NAM's Board of Directors held Spring Meeting

## 3. Other Items of Interest in the Mathematical Sciences in 1977

a. BAM - Blacks And Mathematics, Program began in several large cities nationwide, Etta Falconer was selected to direct program.
b. James Donaldson was nominated to serve on AMS Council.
c. Walter R. Talbot succumbed.
D. THE YEAR 1978

1. January, NAM's National Meeting in Atlanta
a. Annual Meeting was held at Paschal's Motor Hotel; Matador Room, 7 January
b. NAM congratulated Jim Donaldson for his election to the AMS Council.
c. Beauregaurd Stubblefield informed NAM that NOAA was seeking proposals for identifying possible candidates for positions at NOAA.
d. Sidney Harris, Atlanta University, presented an Invited Address at NAM's National Meeting.
e. NAM honored Walter Talbot, Posthumously.
f. AMS-MAA held the Joint Winter Mathematics Meetings in Atlanta at the same time as NAM did; the meetings were at different hotels.
2. NAM wrote/submitted proposal to NOAA for NAM's 10th Anniversary Conference in 1979 (Leadership for this effort was provided by Beauregard Stubblefield who was working at NOAA).

## 3. Results of NAM's 1978 Mail Ballot Election

a. President: Samuel Douglas, Grambling College
b. V. President: Louis Richards, Virginia State College
c. Members-at-large: Solveig Espelie, Howard University

> (First white American elected to NAM's Board of Directors)

## E. THE YEAR 1979

1. January, Joint Annual Winter Mathematics Meetings of the MAA-AMS; Biloxi, MS
2. January, NAM holds general membership Board Meeting in Biloxi
3. February/March, NAM finished final plans for Tenth Anniversary Celebration To be held in Boulder, CO,

March 30-31, 1979
${ }^{* * * * *}$ NAM achievement for the first decade has been a struggle of diligence, persistence, determination and growth. "NAM was established to make a difference and it has."

## F. NAM'S TENTH ANNIVERSARY CELEBRATION: HIGHLIGHTS

March 30-31, 1979<br>Boulder, CO

After ten (10) progressive years as a developing professional organization in the mathematical sciences, the National Association of Mathematicians, Inc. (NAM), in 1979, decided to pause to reflect on its past and to plan for an even brighter future. To hold the kind of celebration that NAM had envisioned would cost thousands of dollars; resources that NAM did not have available among its resources. To organize and implement the kind of celebration desired would require NAM to seek funds from an external source.

NAM's leadership, especially NAM's president at the time, Dr. Samuel Douglas as well as Dr. Johnny L. Houston, NAM's Executive Secretary, and Dr. Beauregard Stubblefield, a life member of NAM, discussed how a proposal could be written to obtain the funds needed from the National Oceanic and Atmospheric Administration (NOAA). During this time, Dr. Stubblefield worked with NOAA as a mathematician and NOAA was agreeable for supporting an initiative for HBCU's or minority scientists. After several discussions with NOAA, there was a verbal agreement to support a well-written proposal that would address an initiative for both the mathematical and physical scientists.

The following proposal was funded by NOAA:

# "A Proposal for a Workshop/Conference on the Prospects for the Future <br> in the Mathematical And Physical Sciences" 

Submitted To
The U. S. Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Research Laboratories
Presented By
The National Association of Mathematicians
January 8, 1979

This proposal was submitted to NOAA to support a workshop/conference designed to make black representatives from 50 universities and colleges aware of information on job availability for mathematical and physical scientists in governmental agencies and a few selected private industries.

## Objectives

The objectives of the workshop/conference were:

1. To bring black mathematical and physical scientists in contact with representatives from the governmental sector of the work world and a few private industries.
2. To make known to black mathematical and physical scientists the availability of jobs for black students in the mathematical and physical sciences.
3. To make known the various cooperative educational programs available to black students.
4. To make known to representatives from black colleges and universities what is expected of their students as new employees.
5. To develop the type of curricula which would better prepare students for industry.

## Criteria for Selection of Participants

1. Must be in one of the sciences, mathematical or physical.
2. Must be employed by a black college or university.
3. Must agree to serve as a contact person from their college or university to employment agencies.
4. Must agree to serve as advisor to students, at their schools, who are interested in employment in governmental agencies.
5. Must agree to make available to students at their college or university information about employment in industry.
6. Must agree to seriously review and develop current curricula on their campus along the lines suggested by the current and future State-Of-The-Arts preparation as articulated by representatives from government and private industry.

## Overview of the Workshops

Workshop I - What Governmental Agencies and Industry Expect of a College Graduate in the Mathematical and Physical Sciences

This workshop was designed to make known to selected faculty in predominantly black colleges and universities exactly what industry, both private and government, expects of the college graduate. That is, to indicate what educational background they should have been given by the colleges and universities.

## Workshop II - Preparing for an Interview

This workshop was designed to assist the faculty members in preparing their students for interviews. Most students did not know what to expect when they went for an interview nor how to present themselves, regardless of how well they had done academically.

Workshop III - Cooperative Education and Internship Programs
This workshop was designed to make known to the representatives from the colleges about internship programs and cooperative educational programs with industry and about intern programs.

## Workshop IV - Keeping a Job After the College Graduate is Hired

This workshop was designed to inform attendees exactly what industry expects of students after they were hired and what qualitites should be developed in order to insure advancement.

## Workshop V - What Core Courses Should a Standard Curriculum in the Mathematical and Physical Sciences Include?

Faculty representatives learned what courses were essential for the students majoring in the mathematical and physicals sciences, if they planned to go into industry.

Each workshop was planned in detail by one of the directors of the National Association of Mathematicians (NAM). That is, there was to be a director of NAM responsible for each workshop. The overall coordination was the responsibility of Samuel H. Douglas, President of NAM, and Johnny L. Houston, Executive Secretary of NAM.

## About The Consultants

Marianna Beale Smith represented Marathon Oil Company, Findlay, Ohio.
Ron Williams brought to the conference eight years of experience in the field of Industrial Relations.
Ray Bond was currently managing the development of new navigation and survey equipment for the Magnavox Government and Industrial Electronics Company.

Ron Willer brought 19 years of experience at various levels of responsibility. He had been affiliated with Ford Motor Company, IBM, Farm Bureau Services, and Blue Cross.

Anna Padilla had been an Equal Employment Specialist for four and one half years.

# WORKSHOP-CONFERENCE "NAM'S TENTH ANNIVERSARY CELEBRATION" 1969-1979 

Sponsored by

## ENVIRONMENTAL RESEARCH LABS

NATIONAL OCEANIC \& ATMOSPHERIC ADMINISTRATION

March 30-31, 1979
at

THE BROKER INN
BOULDER, COLORADO

# WORKSHOP - CONFERENCE PROGRAM 

| Friday, March 30, 1979 | - |
| :---: | :---: |
| 7:30 a.m. - 8:30 a.m. | Breakfast |
| 8:00 a.m. - 9:00 a.m. | Registration |
| 9:00 a.m. - 10:10 a.m. | OPENING SESSION |
| Welcome /Opening Remarks | Dr. Samuel H. Douglas, President, NAM <br> Dr. Beauregard Stubblefield, Mathematician \& NOAA/ERL EEO Manager Dr. Wilmot N. Hess, Director, NOAA, Environmental Research Labs |
| Purpose of Conference | Dr. Johnny L. Houston, Executive Secretary, NAM |
| Introduction of Speaker | Dr. Eleanor Jones, Vice President, NAM |
| Keynote Speaker | Dr. C. B. Bell, Bio-Statistics Department; University of Washington,Seattle |
| 10: $00 \mathrm{a} . \mathrm{m}$. | COFFEE |
| 10:30 a.m. - 12:00 noon | Concurrent Workshops |
| Workshop I | Conference Room A <br> Consultants: Dr. Eleanor Jones, Coordinator; Ray Bond, Ron L. Williams |
| Workshop III | Conference Room B |
|  | Consultants: Dr. Lois McCoy, Coordinator; Fred Hagemeyer |
| 12:00 noon -1:30 p.m. | LUNCHEON: New Yorker Room |
| 1:30 p.m. - 3:00 p.m. Workshop II | Concurrent Workshops |
|  | Conference Room A |
|  | Consultants: Prof. Virginia Newell, Coordinator |
|  | Bill Wright, Anna Padilla, Marianna Smith, Les Franklin |
| Workshop IV | Conference Room B |
|  | Consultants: Dr. Geraldine Darden, Coordinator; Ron Willer, Al Wells |
| 3:00 p.m. -3:30 p.m. | COFFEE |
| 3:30 p.m. - 5:00 p.m. Workshop V | Concurrent Workshops |
|  | Conference Room A |
|  | Consultants: Dr. Benjamin Martin, Coordinator, |
| Workshop III | Conference Room B |
|  | Consultants: Dr. Lois McCoy, Coordinator, Fred Hagemeyer |
| 7:30 p.m. - 9:00 p.m. | BANQUET |
| Introduction of Speaker | Dr. Johnny L. Houston, Executive Secretary, NAM |
| Speaker | Dr. Beatrice Bell Cossey |
|  | Rockerfeller Fellow for Minorities in Higher Education Administration, Office of the President College of San Mateo, San Mateo, CA |
|  | $\begin{array}{r} \text { ent, } \\ 50 \end{array}$ |

Saturday, March 31, 1979

| 8:30 a.m. - 10:00 a.m. | Concurrent Workshops |
| :---: | :---: |
| Workshop IV | Conference Room A |
|  | Consultants: Dr. Geraldine Darden, Coordinator, Ron Willer, Al Wells |
| Workshop I | Conference Room B |
|  | Consultants: Prof. Eleanor Jones, Coordinator, Ray Bond, Ron L. Williams |
| 10:00 a.m. - 10: $15 \mathrm{a} . \mathrm{m}$. | COFFEE |
| 10: 15 a.m. - 11:45 a.m. | Concurrent Workshops |
| Workshop V | Conference Room A |
|  | Consultants: Dr. Benjamin Martin, Coordinator, |
|  | Carter Smith, Jim Wright, Austin Gallow |
| Workshop II | Conference Room B |
|  | Consultants: Prof. Virginia Newell, Coordinator., |
|  | Bill Wright, Anna Padilla, Marianna Smith, Les Franklin |
| 12:00 noon-1:00 p.m. | LUNCHEON New Yorker Room |
| Introduction of Speaker | Dr. Samuel H. Douglas, President -NAM |
| Speaker | Dr. Joseph B. Johnson, President, Grambling State University |

## SCHOLARLY PAPERS

| 1:15 p.m. - 1:30 p.m. | Topic:"Banach Algebra Interpolation Theory" <br> Dr. Roosevelt Gentry, Jackson State University |
| :--- | :--- |
| 1:35 p.m. - 1:50 p.m. | Topic: "Scattering Theory" <br> Dr. Alexander Fluellen; Clark College / Atlanta University |
| 1:55 p.m. - 2:10 p.m. | Topic: "On N--Neotherian Conditions" <br> Dr. Gloria Hewitt, University of Montana |
| $2: 15$ p.m. -2:30 p.m. | Topic:"Application of Infinitessimal Products of Banach Spaces to <br> Physics and Engineering" <br> Dr. Tepper Gill, Howard University |
| $2: 40$ p.m. $-4: 00$ p.m. | BUSINESS SESSION |

## NAM's Tenth Anniversary Celebration, A Success

In addition to the workshops, the Tenth Anniversary Celebration included an eminent African American Mathematician as a keynote speaker. The speaker was Dr. Charles B. Bell, a Statistician from the University of Washington in Seattle, WA who spoke on the topic: "Prospects for the Future in the Mathematical Sciences." Moreover, the Workshops-Conference had an entire afternoon devoted to scholarly presentations. On Saturday afternoon, March 31, 1979, the following presentations were given:

"Banach Algebra Interpolation Theory" Dr. Roosevelt Gentry, Jackson State University<br>"Scattering Theory"<br>"On N--Neotherian Conditions"<br>"Application of Infinitessimal Products of Banach Spaces to Physics and Engineering"<br>Dr. Alexander Fluellen; Clark College / Atlanta University<br>Dr. Gloria Hewitt, University of Montana<br>Dr. Tepper Gill, Howard University

Listed on the following page are the approximately sixty (60) persons who were able to attend this Workshop-Conference, "NAM's Tenth Anniversary Celebration." Following the list of attendees are the scores of persons who were promoting and enhancing NAM in 1979 as State/Area Representatives and Institutional Representatives. Also listed are the Institutional Members of NAM at that time.

As NAM had hoped, "NAM's Tenth Anniversary Celebration" proved to be an excellent time to reflect positively about the past and begin plans for an exciting future.

In addition to NAM's Board of Directors, the consultants and the many participants, NAM owes a special debt of gratitude to three persons who went far beyond the call of duty to make this activity a success. First and foremost, this conference would not have been a success without the splendid effort of NAM's President, Dr. Samuel Douglas. He provided the bold leadership that was needed to guide the Board of Directors and others to plan for this impressive initiative and to implement it in an admirable way. Next, Dr. Beauregard Stubblefield conducted the delicate negotiations with NOAA to get approval for funding and Dr. Johnny L. Houston made many of the arrangements which resulted in the large attendance. The leadership exhibited by this team of three helped to guarantee success.

Some of the activities that NAM initiated in 1980 and beyond were direct outgrowths of this conference and the kind of vision that it stimulated.

## Why Was The Tenth Anniversary Celebration Held In Boulder?

For most of those attending NAM's Tenth Anniversary Celebration, the trip to the WorkshopsConference was their first trip to Boulder, Colorado. In 1979, most of NAM's members and most of the Historically Black Colleges and Universities were located in the southeastern part of the United States. Cities like Atlanta, Birmingham, Charlotte, Memphis, Norfolk, etc. were convenient locations for most members and Institutional Representatives to travel. Why did NAM hold the Tenth Anniversary Celebration in Boulder? The answer is simple. In Boulder, NOAA had a large regional office; the National Center for Atmospheric Research is located there and Boulder was the work location of Dr. Stubblefield and the NOAA group that would be integrally involved with the Conference.

# NAM's Tenth Anniversary Celebration <br> March 30-31, 1979 <br> Boulder, CO 

## List of Attendees

Carolyn L. Anderson
V. Athavale

Willie Black
Charles B. Bell
Robert E. Bozeman
Sylvia Bozeman
Gregory Branch
Clyde Christopher
Dennis Clayton
Beatrice D. Cossey
Geraldine Darden
Samuel Douglas
John Dubriel
M. Solveig Espelie

Alexander Fluellen
William A. Franks
Gina Fulbright
Roosevelt Gentry
Tepper Gill
Benjamin Gottlieb
Larry Gene Hanshaw
Leon Hardy
Mary Harris
Gloria C. Hewitt
Johnny L. Houston
Mary Howell
Gwendolyn Humphrey
Frank James
Elgy S. Johnson
Joseph Johnson

Livingston College
Dillard University
Olive Harvey College
University of Washington
Morehouse College
Spelman College
University of Colorado
Prairie View A \& M Univesity
Bethune-Cookman College
College of San Mateo
NAM Director/Hampton Institute
NAM President/Grambling College
Fort Valley State College
Howard University
Clark College
Langston University
Morgan State University
Jackson State University
Howard University
Bishop College
Alcorn State University
University of Arkansas/Pine Bluff
Lincoln University
University of Montana
NAM Director / Atlanta University
Grambling College
Florida A \& M University
University of Arkansas/Pine Bluff
Univ. of the District of Columbia
Grambling College

## Tenth Anniversary List of Participants (continued)

Eleanor Green Jones
Rosemarie Kleinhasus
Nathaniel Knox
Robert M. Leflore
Benjamin J. Martin
Merdis J. McCarter
Mary J. McKinney
Herbert Morris
Mattie E. Moss
Verette J. Nelson
Virginia Newell
Muriel W. Perkins
Johnny W. Ponds
Julian Warren Pyles
Miguel Rios, Jr.
Louis Richards
Sohindar S. Sachdev
Alice M. Simplkins
Wilbur Smith
Beauregard Stubblefield
Cedric Taylor Stubblefield
James Sutton
Mulesh M. Swami
Washington Taylor
James Hubert Townes
Richie White
Herman L. Windham
William H. Woods
Jeanette Wright
Tommy Wright

Norfolk State University
Xavier University
Morgan State University
Mississippi Valley State University
Morehouse College
Winston-Salem State University
Jarvis Christian College
Arkansas Baptist College
Bennett College
St. Augustine's College
Winston-Salem State University
Mississippi Industrial College
Bowie State University
Barber-Scotia College
Univ. of New Mexico /Albuquerque
SUNY/Old Westbury
Elizabeth City State University
Paine College
NC A \& T State University
NOAA; Boulder, CO
Texas Southern University
Miles College
Clafin College
Southern University
Elizabeth City State University
Fort Valley State College
Tuskegee Institute
Philander Smith College
Grambling College
Knoxville College

| Alabama | Doreatha Smith <br> Alabama A \& M University |
| :---: | :---: |
| Arkansas | Leon Hardy <br> University of Arkansas/Pine Bluff |
| Florida | Gwendolyn Humphrey Florida A \& M University |
| Georgia | Verona Wynn Clark College |
| Louisiana | Washington Taylor Southern University |
| Maryland/Pennsylvania/ Delaware | Nathaniel Knox <br> Morgan State University |
| Mid-West | Willie Black Olive Hardy College |
| Mississippi | Johnny Gills Jackson State University |
| North Carolina | Merdis McCarter Winston Salem State University |
| Northeast | Louis Richard Old Westbury College (NY) |
| Ohio/Kentucky | Thyrsa Svager Central State University |
| South Carolina | Randall Harris Clafin College |
| Tennessee | Calvin King Tennessee State University |
| Texas/Oklahoma | Della Bell Texas Southern University |
| Virginia | Eleanor Jones Norfolk State University |
| Washington, D. C. | Tepper Gill Howard University |
| West | Don Weddington <br> San Jose State University |


| Alabama A \& M University | Doreatha Smith |
| :--- | :--- |
| Albany State College | Rosa B. Johnson |
| Atlanta University | Johnny L. Houston |
| Bennett College | Mattie E. Moss |
| Bethune Cookman College | Dorothy Hogan |
| Bishop College | Argelia V. Rodriquez |
| Bowie State College | Robert Walker |
| Central State University | Thyrsa Svager |
| Cheyney State College | Henry Hardy |
| Claflin College | Randall Harris |
| Clark College | Alexander Fluellen |
| Coppin State College | Delores Smith |
| Delaware State College | Arthur Bragg |
| Dillard University | V. N. Athavale |
| Elizabeth City State University | Sohindar S. Sachdev |
| Fayetteville State University | Leo Edwards |
| Florida A \& M University | Gwendolyn Humphrey |
| Fort Valley State College | Richie White |
| Grambling College | Samuel Douglas |
| Hampton Institute | Geraldine Darden |
| Howard University | Solveig Espelie |
| Jackson State University | Johnny L. Gills |
| Jarvis Christian College | Burnis Johnson |
| Knoxville College | Tommy Wright |
| Lemoyne Owen College | John Harris |
| Lincoln University (PA) | Walter Mallory |
| Livingston College | Grady Nelson |
| Miles College | Sutton |
| Mississippi Valley State University | Morehouse College |

## NAM's Institutional Representatives - 1979 (continued)

| Morgan State College | Nathaniel Knox |
| :--- | :--- |
| Morris Brown College | Melvis Atkinson |
| Norfolk State College | Eleanor B. Jones |
| N. C. A \&T State University | Wilbur L. Smith |
| N. C. Central University | Chavis Renwick |
| Oakwood College | John Blake |
| Prairie View A\&M University | Frank Hawkins |
| Saint Pauls College | Marcelle Watson |
| Savannah State College | Dorothy Smith |
| Shaw University | Lillian Gould |
| South Carolina State College | James E. Keller |
| Southern University | Everett Gibson |
| Spelman College | Sylvia Bozeman |
| Stillman College | Japheth Hall |
| Talladega College | Richard E. Propes |
| Tennessee State University | Calvin King |
| Texas Southern University | James Glenn |
| Tougaloo College | Blake Hill |
| Tuskegee Institute | Roland Jackson |
| University of Arkansas-Pine Bluff | Leon Hardy |
| Virginia State College | George Winbush |
| Wilberforce University | L. P. Pujara |
| Wiley College | George Roberts |
| Winston-Salem State University | Virginia Newell |
| Xavier University of Louisiana | Rosemarie Kleinhaus |
| NAM's Institutional Members |  |
| Atlanta University | Virginia State College |
| Howard University | Wayne State College |
| Somona State College |  |
| St. Augustine College | Winston-Salem State University |
|  |  |
| Same Notre Dame |  |

NAM's Board of Directors - 1979

Executive Secretary
Johnny Houston
National Association of Mathematicians
P.O. Box 10766

Atlanta, GA 30310

## Elected Office of the Board

President
Samuel Douglas
Grambling State University
Grambling, LA
Vice-President
Eleanor Jones
Norfolk State University
Norfolk, VA
Editor
Virigina Newell
Winston-Salem State University
Winston-Salem, NC
Secretary-Treasurer
Geraldine Darden
Hampton Institute
Hampton, VA
Member-at-Large
Louis Dale
University of Alabama
Birmingham, AL
Member-at-Large
Benjamin J. Martin
Morehouse College
Atlanta, GA

## G. THE YEAR 1980

1980 was a pivotal year in the development of NAM as a professional organization in the mathematical sciences. During its first decade of existence, NAM established itself as an organization with purpose and vision. During its second decade NAM's objective was to exert major influence in the larger community of the mathematical sciences. At its 1980 National Meeting at the Joint Winter Mathematics Meetings of the MAA and AMS, some giant steps were taken in this direction.

## 1. January 3-4, 1980

During the 1980 Joint Annual Winter Mathematics Meetings of the Mathematical Association of America (MAA), the American Mathematical Society (AMS) and the Annual National Mathematics Meeting of the National Association of Mathematicians (NAM), NAM offered its members and the larger mathematical sciences community an expanded program that promoted excellence in the mathematical sciences. Specifically, NAM used this meeting to establish two important features of this and future National Meetings Programs:

## a. The William W. S. Claytor Lecture and

b. The Elbert F. Cox - Walter Talbot Address

The Claytor Lecture was established as a one hour scholarly presentation in honor of the late William Weldron Schieffelin Claytor (1908-1967), the third black man to earn a Ph.D. degree in mathematics and the first black mathematician who attempted to develop a career as a research mathematician at a major Research University. Claytor was a topologist. Claytor's mathematical work on imbeddability in the plane attracted considerable attention throughout the topological community. Claytor's work on Peano continua was striking. He was able to generalize certain results of Casmir Kuratowski, which mathematicians had been studying for several years.

The Cox-Talbot Address was established to be given at the NAM National Meeting during a mid-day luncheon or an evening banquet. It was established in honor of the first and fourth black mathematicians to earn a Ph.D. degree in Mathematics. Elbert F. Cox (1895-1969), was the first black person in the world to earn a Ph.D. degree in mathematics (1925, Cornell University) and he spent most of his career at Howard University where he guided and inspired many to do graduate study in mathematics. Walter R. Talbot's (1909 - 1977) career was divided between Lincoln University (Missouri) and Morgan State University. He spent a great deal of time promoting the mathematical development of American minorities, especially African Americans. Talbot and Stubblefield were perhaps the two most prominent black mathematicians that attended the New Orleans Meeting in 1969. Talbot helped significantly to guide NAM through its establishment and development as a formidable organization

## c. A Session of Invited Papers.

A session for invited short scholarly presentations took place at the 1980 National Meeting. It permitted several persons an opportunity to report on research activities in intervals of a maximum of twenty (20) minutes each. NAM's 1980 session for invited short scholarly presentations was devoted to general topology in honor of Claytor. The session was chaired by Scott W. Williams, an associate professor of mathematics (topologist) at SUNY - Buffalo. Later in 1996, a similar session would become a permanent part of NAM's National Meeting. In addition to these three program events, NAM also held its annual panel and business meeting.
2. The January 3-4, 1980 program consisted of the following activities:

NAM's Panel:
"Some Current Trends for Freshmen Mathematics Programs"
Eleanor Green Jones, Norfolk State University, Moderator
Panelists:
Roosevelt Gentry, Jackson State University
Everett Gibson, Southern University - Baton Rouge
Merdis McCarter, Winston Salem State University
Harriett Walton, Morehouse College
The Claytor Lecture
"Some New Continuity Notions and Applications"
James E. Joseph, Howard University
The Cox-Talbot Address (luncheon)
"Blacks in Science: A Growing National Crisis"
J. Arthur Jones

NAM's Session on Short Scholarly Papers
Scott W. Williams, Moderator - SUNY
Leon Hardy, NC Central State University
James Nelson, NC State University
Beauregard Stubblefield, NOAA
3. After San Antonio
a. Some members of the Board of Directors assisted the President with the Tape Translator Project associated with the Tenth ( $10^{\text {th }}$ ) Anniversary Program
b. Some of the Board Members assisted James Donaldson and Solveig Espelie in developing a NAM Proceedings of the San Antonio Meeting
H. THE YEAR 1981

1. The work of translating tapes of NAM's Tenth Year Anniversary continued.
2. The work of developing a Proceedings of The San Antonio Meeting continued.
3. The Annual Joint Winter Meetings of the MAA - AMS was held in January in San Francisco. (NAM did not hold its regular annual meeting at The Annual Joint Winter Meetings, 1981.)

## I. THE YEAR 1982

1. The work of translating tapes of NAM's Tenth Year Anniversary continued.
2. The work of developing a Proceedings of The San Antonio Meeting continued.
3. The Annual Joint Winter Meetings of the MAA - AMS was held in January in Cincinnati. (NAM did not hold its regular annual meeting at The Annual Joint Winter Meetings, 1982.)

Remarks It should be noted that an informal survey of the membership indicated that very few members would be attending the meetings in San Francisco in 1981 and Cincinnati in 1982. This influenced NAM not to plan national meetings for those years.

## J. THE YEAR 1983

1. The Annual Joint Winter Meeting of the MAA - AMS was held in January in Denver
2. NAM held a general membership meeting at The Annual Joint Winter Meeting, 1983.
3. However, NAM did not hold a Board of Directors meeting at The Denver Meeting in 1983 because there was not a quorum of the Board present.
4. A memorandum was sent to the Board of Directors of NAM on January 10, 1983, providing them with a report of the 1983 Joint Winter Mathematics Meeting. This report gives insight about NAM for the years 1981-83. Because of its historical significance, we now present the entire report.

## K. THE YEARS 1981-83, A TIME OF CHALLENGE

## 1. January 10, 1983 Memorandum --- National Association of Mathematicians

## P.O. Box 10766

ATLANTA, GEORGIA 30310

## JOHNNY HOUSTON

## Executive Secretary

| To: | The Elected Members of The Board of NAM |
| :--- | :--- |
| From: | J. L. Houston |
| RE: | The Joint Winter Meetings, January 5-9, 1983 |
| Date: | January 10, 1983 |

As you know, NAM as an organization has been visibly inactive for the past two years. There are several reasons for this. It is understandable that weather, distance and/or cost caused it to be prohibitive for some members to attend the meetings in San Francisco in 1981 and Cincinnati in 1982. However, there are other reasons - no board meetings, no planned programs, no follow-through by various ones of us and I am personally responsible for not providing certain kinds of information, actions and leadership that should have been provided. As you and I know the status of things need to change if NAM is to survive.

On the other hand, during the past two years, Samuel Douglas, our President completed the proceedings of the Boulder meeting and M. Solveig Espelie and James A. Donaldson did an excellent job in collecting the information, editing and getting printed the Proceedings of the Eleventh Annual (1980) Meeting of NAM and Harriet Walton set-up the bank account in Atlanta and she has also managed our meager resources.

On January 6, I attended the Denver meeting and I was the only member of NAM's Board that was present. Prior to going to the meeting I made an attempt to contact everyone on the Board. Prior to conducting the General Business meeting of NAM in Denver on Friday January 7, 1983, I was able to contact every member of the Board except one, Louis Richards.

In my communication with the members of the Board, it was concluded that the term of all members on the Board had actually expired. However, for the survival of NAM and in fairness to persons who had been elected to the Board during the last election but had not had an opportunity to serve (not due to their unwillingness or lack of desire, but due to the inactivity of the Board); it was agreed that elections would be held for the three positions not involved in the most recent election: President, Vice President and A Member-at-Large (M. Solveig Espelie). The terms of other positions would not expire until January 1984. Thus at the general meeting I announced that an election would take place and that it would involve filling the above offices. Moreover, each of the persons whose position would not expire until January 1984 (by the fair adjustment made) expressed a desire and willingness to work, provided that they are provided with the proper guidance, leadership and information that they need to do their job. I committed myself to remain on the Board at least one more year to help ensure that they get this opportunity to be able to do a credible job while they are on the Board during the last year of their current term. In addition, during the general meeting, I made certain commitments on behalf of the Board and I plan to work for the next year to see that these commitments are honored. Enclosed is a summary of the general business meeting of NAM in Denver which includes those commitments.

In that I have made these commitments on the part of NAM's Board and in that I have agreed to stay on at least one more year to keep these commitments, I look forward to a very fruitful and active year.

## 2. NAM's Business Meeting; January 7, 1983: Summary of Minutes <br> 

# National Association of Mathematicians 

P.O. Box 10766

ATLANTA, GEORGIA 30310
Johnny Houston
Executive Secretary

## NAM Business Meeting ----Summary of Minutes

On Friday January 7, 1983 the general business meeting of NAM was called to order at $5: 30 \mathrm{p} . \mathrm{m}$. with Johnny Houston presiding.
I. A summary of NAM's inactivity for the past two years was given.
II. The presider spoke for about twenty (20) minutes on the topic:

What should NAM's General Membership Expect From NAM's Board of Directors in 1983?
A. A membership Renewal Request should be sent to all past members of NAM. The following initiatives were presented with 300 members being the minimum membership goal.
B. An election - by mail - to fill the expired terms of three Board members:

The President (currently-Samuel Douglas)
The Vice-President (currently-Louis Richards)
Member-at-Large (currently - M. Solveig Espelie)
This will occur in late January-early February.
C. A full Board of Directors would be activated and they will meet twice a year-January and April-and committees will meet more frequently.
D. A Revitalization of NAM's Network of Representatives.

1. The re-establishment of a network of active State/Regional Representatives
2. The re-establishment of a Network of active Institutional Representatives
E. The publication of four NAM Newsletters: March, May, September, and December
F. The distribution of the Proceedings of the 1980 San Antonio Meeting to all financially current members
G. The distribution of the Proceedings of NAM's Tenth-Year Program in Boulder, CO to all financially current members
H . The planning and presentation of an excellent 15 th year program in Louisville, KY in January 1984-one that will emulate the 1980 San Antonio program.
I. The Establishment of a Database of Black Mathematical Scientists and Educators that have doctorate degrees and/or who are teaching at the collegiate level.
J. The establishment of a Database of Black Students pursuing graduate programs, especially doctoral programs, in the Mathematical Sciences.
K. Actively working toward securing financial support for establishing and maintaining a National Office for NAM.
L. Actively working toward the establishment of a national clearing house of concerns relating to the mathematical sciences, all levels.

After the presentation, the presider then shifted emphasis and spoke briefly on the following topic:

## III. What Does NAM Board Need From The General Membership in 1983?

The following conclusions were made
A. Their current and active membership, both financially and service-wise
B. General Support and Involvement with the Activities of NAM
C. Active participation as State/Regional Representatives and Institutional Representatives
D. The Identifying and Supplying of information to NAM that is newsworthy (for NAM's Newsletter) or information for the various NAM's Databases.
E. Helping NAM in its recruitment of new members.
F. Serving and participating on various committees of NAM.

After these two presentations by the presider, the floor was opened for general business.
Much of the discussion centered around the urgency of NAM Board to become active again and for NAM to exercise influence on issues involving the Mathematical Sciences Community and the black community, whether these issues arise in the majority community such as NSF, AMS, MAA, Graduate Education, Public School education or in the black community - TBI's Math Programs, Training Teachers, attracting mathematics major, influencing students to go to graduate schools, etc.

In short, it was the consensus of the group that NAM is as relevant today as it was 14 years ago when it first organized and that NAM must become more active and pro-active in 1983.
3. NAM's Board of Directors; 1983-84

## NATIONAL ASSOCIATION OF MATHEMATICIANS BOARD OF DIRECTORS

Executive Secretary . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . January, 1985
Johnny Houston, National Association of Mathematicians
P.O. Box 10766; Atlanta, GA 30310; Phone (404) 681-0251/(912) 825-6430

## ELECTED OFFICERS OF THE BOARD

President
Term ends
Samuel Douglas
Grambling State University; Grambling, LA 71245; (318) 247-6941-Office
Vice-President
January, 1983
Louis Richards
SUNY, Old Westbury College; Old Westbury, NY 11568; (516) 876-3127
Editor
Roosevelt Gentry
Jackson State University; Jackson, MS 39217; (516) 876-3127
Secretary-Treasurer
January, 1984
Harriet Walton
Morehouse College; Atlanta, GA 30314; (404) 681-2800
Members-at-Large . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . January, 1984/1983
Leon Hardy; NC Central University; Durham, NC 27707; (919) 683-6315
M. Solveig Espelie; Howard University; Washington, D.C. 20059;

## L. 1984 NAM's National Meeting

1. Business/Membership Meeting: NAM Rises to the Challenge (Summary of Minutes)

# National Association of Mathematicians 

P.O. BOX 10766<br>ATLANTA, GEORGIA 30310

## JOHNNY HOUSTON

Executive Secretary

Louisville, Kentucky

January 27, 1984

Johnny Houston, Executive Secretary, called the meeting of the National Association of Mathematicians (NAM) to order at 1:50 p.m. Houston noted that NAM still enjoyed respectability in the larger mathematical community. He also stated that one purpose of the meeting was to revitalize the tiers of membership in NAM that are not functioning. The tiers are (1)-the General Membership, (2) Institutional Representation, (3) Regional/ State Representation, (4) NAM Board of Directors, and (5) the National Office. The National Office is surviving but needs to be more active Houston observed that the Board of Directors was suffering due to the lack of an active President.

Questions were raised regarding election procedures. A motion was made by James Donaldson with second by Robert Bozeman that provisional officers for one year be elected until officers can be elected by mail ballot by the whole membership. Nathaniel Knox then made a motion that we table the motion, collect dues, then return to the discussion. The voting was 21 in favor of the motion; the motion carried. Dues in the amount of ten dollars (\$10) were collected from twenty-seven (27) persons with two persons (Sylvia Bozeman and William L. White) indicating that they had mailed their checks earlier.

Officers were nominated and elected as follows:
President ---------------------Rogers Newman
Vice President ------------ Nathaniel Knox Sylvia Bozeman. (The majority of the votes were for Bozeman)
Secretary-Treasurer ------- Harriett Walton
Editor of Newsletter ----- James Donaldson
Eleanor Green Jones made a motion that a letter be sent to Joan Leitzel protesting the treatment of Beverly Anderson by a convention panel (Anderson was not given time for her presentation during the session). James Donaldson amended the motion to include a copy of the letter to be sent to the President of MAA and Chairmen of appropriate committees. Lee Lorch amended the motion to include letters to Focus and the Weekly Press. The amended motion passed.

Lee Lorch suggested that the NAM officers be instructed to write to (and publicize) the Council President and appropriate officers protesting the underrepresentation of Blacks on the Council and the need for Blacks to be represented in offices, etc
(page 2, Minutes of Louisville meeting)
Rogers Newman expressed thanks for having been elected president of NAM. He promised to communicate with the membership so that the election might proceed in an orderly fashion. Newman asked Lee Lorch and Eleanor Jones to compose the letters to catch the flavor of the-suggested protests.

The meeting adjourned.

Johnny Houston, Executive Secretary<br>Rogers Newman, President<br>Harriett Walton, Secretary - Treasurer

## 2. NAM's 1984 Claytor Lecture

Professor Albert Turner Bharucha-Reid delivered NAM's 1984 Claytor Lecture at the Joint Winter Mathematics Meetings in Louisville, KY in January.

## 3. NAM's Board of Directors Held a June 2, 1984 Meeting in Atlanta, GA

* Donaldson was praised for producing and sending a NAM's Newsletter in May 1984.
* NAM's next election was planned.
* NAM's 1985 National Meeting was planned for 1985 in conjunction with the Joint Winter Mathematics Meetings.


## 4. NAM Published Two (2) Newsletters in 1984 - Some Highlights From These Publications:

## a. Blacks and the American Mathematical Society (AMS) Council

- Over the years three black Americans have served on AMS Council; David Blackwell (member of the National Academy of Science), James A. Donaldson (Chair-Mathematics Department, Howard University, and J. Ernest Wilkins, (member of the National Academy of Engineering sciences). All three achieved membership by winning contested elections in which all had serious competition. No black American has ever been nominated for an uncontested position on the Council; however, most positions (about two-thirds) of the Council are filled via nominations for uncontested positions.


## b. Espelie and Love Succumb

- M. Solveig Espelie, Prof. of Mathematics at Howard University died in June 1984. She had been a member of NAM's Board for several years and she was the first white American elected to NAM's Board.
- Theodore A. Love, Prof. of Mathematics Emeritus at Fisk University died in the late Fall of 1984.
c. Recent Research Publications were Produced by the Following Persons (Pre-prints Available) :
*Gerald Chachere, Howard University
- A Study of the $n$-Dimensional Permutohedron
- The Revenue-Restricted Multiproduct Minimum Cost Function
- The Relationship between Scale Electricity and Cost Electricity in Multiproduct Models of Production
* James A. Donaldson, Howard University
- A Nonstandard Boundary Value Problem for Laplace's Equation in the Upper Half-plane


## d. Noteable Achievements

*Professor Albert Turner Bharucha-Reid was among nine distinguished individuals receiving honorary degrees during Syracuse University's $130^{\text {th }}$ Commencement in May 1984. Bharucha-Reid, recipient of the Honorary Doctor of Science Degree, was the Distinguished Professor of Mathematics at Atlanta University.

## * Harvey M. Friedman receives ninth Waterman Award

Harvey M. Friedman, Professor of Mathematics at Ohio State University, was selected from among 132 nominees to receive the award which includes a medal and an NSF grant of up to $\$ 50,000$ a year for three years of research and advanced studies.

* Louis de Branges of Purdue University Proves Bieberach's Conjecture for All n.

A well-known and celebrated conjecture in Function Theory, proposed by L. Bieberbach, may be formulated as follows:

$$
\text { If } f(z)=z^{\mathrm{z}}+\underset{\mathrm{n}=2}{\mathrm{~A} \mathrm{An}^{\wedge} \mathrm{z}^{\wedge} \mathrm{n}}
$$

is a univalent function defined in the unit disk, then:

$$
|\mathrm{An}| \leq \mathrm{n} \quad \text { for all } \mathrm{n} .
$$

*Abdulkenia Zekeria defended successfully his dissertation, "Singularly Perturbed Second Order Differential Equation with a Hilbert Space" on November 28, 1984, gaining the distinction of being the first individual to earn a Ph. D. in Mathematics at Howard University. Members of his final Examination Committee were professors Isom Herron (Chairman), James A. "Donaldson (Dissertation Advisor), Neil Hindman, Louis Shapiro, and Raymond Johnson (U-MD-CP).

## e. People in the News

*Gloria Gilmer succeeded James A. Donaldson as chairman of the American Mathematical Society's (AMS) Committee on Opportunities in Mathematics for members of disadvantaged groups.
*Don Hill was elected to MAA's Board of Governors
-Don Hill was elected to the National Board of Governors of the Mathematical Association of America. His term ran through July of 1986.

[^1]
## * Robert Bozeman

Robert E. Bozeman, Professor of Mathematics at Morehouse College, has accepted a post-doctorate appointment at Atlanta University for the 1984-85 academic year. His research is being supported by a grant from the National Aeronautics and Space Administration (NASA)

* Rogers Newman, Interim President of NAM, was on leave from Southern University for the 1984-85 academic year to accept a visiting professorship at Longwood College in Farmville, Virginia.
* Johnny L. Houston, Executive Secretary of NAM, accepted on August 1, 1984, the position of Vice Chancellor for Academic Affairs at Elizabeth City State University. Elizabeth City, North Carolina.


## M. 1985; NAM's Major Activities

1. NAM's National Meeting in Conjunction with The Joint Winter Mathematics Meetings in Anaheim, CA; January 11-12 1985
a. NAM's Business Meeting was held Friday, 6:00pm, January 11
b. NAM's 1985 Claytor Lecture, January 12

Topic: "Three (3) Applications of Topology To Statistics". Presenter: Prof. David N. Blackwell, Univ. of California-Berkeley
c. NAM's Panel, January 12

Topic: "Graduate Students in Mathematics, Enlarging the Pool." Moderator: Rogers Newman, Southern University
Panel Members: Tepper Gill, Howard University; Frank Hawkins, Prairie View A\&M; Leon Heinkin, University of California-Berkeley

The panel members all agreed that there is a pressing need to get more minority students into the mainstream of serious mathematics activities.

## 2. NAM Elected Officers

At its business meeting in Anaheim, NAM elected the following officers who will manage the affairs of the organization for the next two years:

President - Rogers Newman 1/85-1/87
Vice President - Sylvia Bozeman 1/85-1/87
$\mathrm{Sec} /$ Treasurer - Harriet J. Walton 1/85-1/86
Editor - (Newsletter) - James Donaldson 1/85-1/86
Member-at-Large "A" - Merdis McCarter 1/85-1/87
Member-at-Large"B" - Willie Taylor 1/85-1/86
Member-at-Large"C" - Nathaniel Knox 1/85-1/86
Executive Secretary - Johnny Houston

## 3. NAM Adopts New Dues Structure

Regular Membership--------- \$ 15.00
Student Membership--------- \$ 4.00
Contributing Membership- $\$ 25.00$
Sustaining Membership------ \$50.00
Institutional (College, etc.)-- \$50.00
Life Membership-------------- $\$ 150.00$

## 4. Committees Established

The following committees were formed at the annual meeting in Anaheim.

## Annual Program and Activity

Chairperson - Sylvia Bozeman

Vice Chairperson - Willie Taylor
Member - Donald Cole

Membership-Budget-Fund Raising

Chairperson -
Harriett Walton
Vice Chairperson - Merdis McCarter
Members -
Frank Hawkins
Robert Bozeman
Publication and Publicity
Chairperson - James Donaldson
Vice Chairperson - Nathaniel Knox
Members - Crepin Mahop
Gloria Gilmer

## Legislation and Nomination

| Chairperson - | Merdis McCarter |
| :--- | :--- |
| Vice Chairperson - | Sylvia Bozeman |
| Members - | Robert Bozeman |
|  | Roosevelt Gentry |

Task Force for Identifying and Developing Mathematical Talent Among Young Students

Institutional Representatives
Sohindar S. Sachdev - Elizabeth City State University
Charles Johnson - Norfolk State University
Pat Kenschaft -
Robert E. Bozeman -
Paul C. Stein -
Donald Weddington -
Montclair State College
Morehouse College
Jackson State University
San Jose State University

## 5. A Second Renaissance

The Anahiem Meeting proved to be like a second Renaissance Meeting for NAM. People were eager to participate, eager to get involved and eager to proclaim the value and importance of NAM as an organization of quality in the mathematical sciences.

All during the year 1985 this Renaissance atmosphere continued. In the statement below, NAM's Secretary - Treasurer reflects this atmosphere in a note that she included in a NAM's Newsletter that was published in late 1985.
6. From the Desk of The Secretary - Treasurer of NAM, Harriett J. Walton

It has been very exciting for me to receive dues for NAM from all over the country. Often personal notes were included as well as notes expressing pleasure over the reactivation of NAM. I promise to get membership cards in the mail soon!

## 7. Albert Turner Bharucha-Reid Succumbed

Professor Bharucha-Reid died on February 26, 1985. He was a world-class mathematician. This is referenced in the following quote: "We honor you as a founder of Probabilistic Analysis. A mathematician of great distinction, you sensed the importance and glimpsed the possibilities of new developments in your field and then led the way to the application of new knowledge."

- Citation at Syracuse U. Commencement, May 1984 when he was awarded an honorary D.Sc.


## N. 1986, NAM'S MAJOR ACTIVITIES

## 1. NAM's National Meeting

The 1986 NAM's National Meeting was held in New Orleans on January 9 -11, 1986; in conjunction with the Joint Winter Mathematics Meetings of the AMS and MAA

## SCHEDULE OF NAM's PROGRAM OF ACTIVITIES

Thursday, January 9, 1986<br>NAM Board/Business Meeting 7:30 p.m.<br>Friday, January 10, 1986<br>Panel Discussion: "Standardized Testing" 11:15 a.m.-12:30 p.m.<br>Moderator: Sylvia Bozeman, Spelman College<br>Principal Presenter: Chancey Jones, E.T.S.<br>Panelists: Phillip Curtis,<br>Everett Gibson,<br>Univ. of California / Los Angeles<br>Etta Falconer,<br>Southern U - Baton Rouge, LA<br>Spelman College<br>Saturday, January 11, 1986<br>W.W.S. Claytor Lecture<br>Speaker: J. Ernest Wilkins, Jr.<br>"Optimization of Extended Surfaces for Heat Transfer"<br>This National Meeting was well-attended and NAM as an organization continued with many positive activities that had been initiated in 1985.

## 2. Some Noteworthy News reported in NAM's Newsletter

a. The R. A. Fisher Award of the Committee of Presidents of Statistical Societies (COPSS) was presented to David Blackwell of the University of California - Berkeley on August 20, 1986 at the Joint Statistical Meetings in Chicago. The title of Dr. Blackwell's Fisher Lecture was "Likelihood and Sufficiency."
b. George H. Butcher retired on June 30, 1986 after thirty-eight (38) years of service in the Mathematics Department at Howard University.

## O. 1987, MAJOR ACTIVITIES OF NAM

## 1. NAM's National Meeting

The 1987 NAM's National Meeting was held in San Antonio on January 24, 1987 in conjunction with the Joint Winter Mathematics Meetings of the AMS and MAA.

## SCHEDULE OF NAM's PROGRAM OF ACTIVITIES

9:00 a.m. - 10:00 a.m. NAM's Claytor Session of Invited Presentations
Session Chair: Don Hill, Florida A \& M University

## Presenters

9:00 a.m. - 9:15 a.m. Curtis Clark, Georgia State University "Ultimately Economical Graphs"

9:20 a.m. -9:35 a.m. Ronald Biggers, Clark College
"Irreduciblity of Moduli Spaces of Cyclic
Unramified Covers of Genus g Curves"
9:40 a.m. -9:55 a.m.
Donald Cole, General Dynamics-Operations Research "Some Existence Results For Partial Differential Equations"

10:00 a.m. - 11:30 a.m.
NAM's Panel
"Re-Thinking the Teaching of Calculus"
Moderator: Merdis J. McCarter, Winston Salem State University
Panelists:
Gloria Hewitt, University of Montana
Ronald G. Douglas,
Raymond Richardson,
SUNY-Stoney Brook
Harley Flanders,
Tennessee St. U.
University of Michigan
1:00 p.m. - 2:00 p.m. NAM's Business Meeting;
Rogers Newman, Presiding

## P. 1988, NAM's Major Activities

1. NAM's National Meeting, Atlanta, GA; January 7-9
a. NAM's Board of Directors Meeting was held on the evening of January 7
b. NAM's Membership/Business Meeting was held on January 9
c. NAM's Claytor Lecture: Invited Address by Wade Ellis, Jr. "What Do You Need to Know for Sure?"

## 2. NAM's Banquet at the 1988 National Meeting was in Honor of Evelyn Boyd Granville and Marjorie Lee Browne

a. Welcome and Occasion, NAM's Banquet; Paschal Motor Hotel; Atlanta, GA.: January 8 ,

By Johnny L. Houston, Ph. D
It is an honor for me to stand here this evening to welcome you and bring remarks about this august occasion. It is an even greater honor for me to have been associated in some small way with the group of individuals who constitute the organization of mathematicians and educators that is now internationally known as NAM. My responsibility is to share with you some selected information about this occasion, about NAM and NAM's role and responsibility in the community of scholars and educators.

The purpose of the occasion is simple. We have come this evening to celebrate an illustrious part of the pre-history of NAM; a history that helped to give birth to the very existence of NAM. We have come today to pause, reflect and to pay tribute to the first two black women to earn a Ph.D. degree in mathematics:

Evelyn Boyd Granville and Marjorie Lee Browne, posthumously<br>Yale University, 1949<br>University of Michigan, 1950

## b. NAM's HONOREES

On this occasion the National Association of Mathematicians pays tribute to Evelyn Boyd Granville and Marjorie Lee Browne, the first two Black women to receive the Ph.D. in mathematics. Evelyn Boyd Granville received the bachelor's degree from Smith College in 1945 and the master's (1946) and Ph.D (1949) degrees in mathematics from Yale University. Her dissertation was "On Laguerre Series in the Complex Domain". She is currently Professor Emeritus of Mathematics at California State University where she taught from 1967 to 1984. Her earlier background included teaching at Fisk University and employment as an applied mathematician. Her work was distinguished by an expectation of excellence for herself and her students. Dr. Granville's examples of excellence as weil as her abilities and warmth inspired her students and continue to bring joy to her friends and family.

Marjorie Lee Browne received the bachelor's degree from Howard University in 1935, and the Master's (1939) and Ph.D. (1950) degrees in mathematics from the University of Michigan. Her dissertation was "On the One Parameter Subgroups in Certain Topological and Matrix Groups". She taught at North Carolina Central University from 1949 to 1979 and was department head (first) there from 1951 to 1970. Dr. Browne's dynamic academic leadership and dedication to teaching led to the success of countless students in mathematics as well as the development of strong high school and college mathematics programs.

## c. Banquet Notes

A high point of the Annual Meeting was the Friday evening banquet given in appreciation of Evelyn Boyd Granville and Marjorie Lee Browne, the first two Black women to receive the Ph.D degree in mathematics in 1949 and 1950 respectively. Dr. Granville is currently residing in Texas. Dr. Browne died in 1979 while serving on the mathematics faculty at North Carolina Central University.

Rogers Newman, President of NAM, made two presentations. A donation was given to the Marjorie Lee Browne Trust Fund at North Carolina Central University (NCCU). The Fund provides scholarships for deserving students in mathematics at NCCU. Mrs. LaVerne Pierce of New Orleans, Louisiana, a cousin of Dr. Browne's, was on hand to accept the donation and then present it to William Fletcher, Chairman of the Department of Mathematics and Computer Science at NCCU. Dr. Fletcher shared with the audience many insights into the life and work of Dr. Browne which he gained during the years that they were colleagues in the NCCU Mathematics Department.

The second presentation was a plaque for Evelyn Boyd Granville who was to be the banquet speaker. Unfortunately she was unable to attend due to inclement weather. The plaque for Dr. Granville was accepted on her behaif by Eita Zuber Falconer, Chairperson of the Natural Sciences Division, Spelman College. Dr. Falconer reflected on her days as a student of Dr. Granville's at Fisk University. Lee Lorch, Professor Emeritus at York University, Ontario, was chairman of the Mathematics Department at Fisk when Dr. Granville (then Dr. Boyd) was at Fisk. He related, with fondness, his memories of her as a young teacher.

A slide presentation on "Black Women in Mathematics" had been prepared by Melvis Atkinson and Benjamin Martin. It was narrated by Gloria Glimer. The atmosphere was one of warm fellowship and pride as names were called and slides were shown of Black women who have received doctorate degrees in mathematics or mathematics education. Many of them were present and were received warmly by the audience.

In addition to the members of NAM, those attending the banquet included members of the Association for Women in Mathematics, several graduate and undergraduate students in mathematics (including undergraduates from FAMU), and other members of the family of Marjorie Lee Browne. Greetings from the State of Georgia were brought by the Honorable Curtis L. Atkinson, Assistant Secretary of State. The evening was a special occasion for all attending.

## d. Congratulations by the Association for Women in Mathematics (AWM)

Office Address: Box 178 Wellesley College;Wellesley, MA; Telephone: 617-235-0320 Ext. 2643
January 8, 1988
The Association for Women in Mathematics extends congratulations and good wishes to NAM on the occasion of its dinner honoring Evelyn Boyd Granville and the memory of Marjorie Lee Browne. AWM shares your pride in the achievements of these great women and offers support and encouragement to future generations of Black mathematicians.

Warmly submitted for AWM,

# 3. NAM Panel on "Attracting Minority Students into Undergraduate Mathematics through Pre-College Programs" 

Jack Alexander, Wentworth Institute of Technology; Moderator<br>Panelists<br>Beverly Anderson, University of the District of Columbus<br>Manuel Berriozabal, University of Texas - San Antonio<br>Don Hill, Florida A \& M University

## 4. NAM panel discussion on intervention strategies for minority students; Opening Statement [BAM]

While it is uncertain, from a statistical point of view, just how significant our efforts have been, we believe in our hearts that the Blacks and Mathematics Program (BAM) has, in fact, made a difference.

The BAM program was designed initially to augment the visiting lectureship program for the secondary schools which was sponsored by the Mathematical Association of America. Gencral aims of these programs were to motivate capable students toward career involvement in mathematics and to stimulate interest in mathematics regardless of career choice.

The major goal of BAM is, and has always been, to increase in black students an awareness of the need for mathematics courses in high school. Hopefully, this will motivate them for careers in many different areas. Clearly, blacks are under-represented in fields that use a significant amount of mathematics.

In order to realize this goal, we saw the need to provide role models to encourage more black students to consider careers in mathematics. Also, we wish to influence counselors, teachers and parents to direct more of these students into said careers

Lastly, we are interested in developing a higher level of awareness on the parts of students, teachers, and guidance personnel as to the large number of careers that are quantitative in nature.

The BAM Program has been in operation since 1977 when Etta Falconer of Spelman College worked as its first national director. Over the years BAM expanded to Washington, DC (Tepper Gill), Houston, TX (Della Bell), Hartford, CT (John W. Alexander), Detroit (Velma Walker), Baton Rouge, LA: Miami, FL; and Newark, NJ. So much for history.

Every little bit helps. Changing attitudes, and aspirations are usually gradual processes. Even if programs are targeted at first graders, six years are enough for students to have already formed some tendencies, likes, and dislikes.

The point is that we cannot afford to become discouraged if we do not perceive immediate results. Despair is the great and formidable enemy. We want our young people to do well and we want them to do well now. Realistically, we must work on the problem from several perspectives; accepting gradual improvements.

We have learned in our ten years of operation with BAM that a multi-pronged approach seems to reach the greatest number of youngsters. Initially, we felt that the role model concept was the most important. However, we have seen that some students are much more interested in a novel application of mathematics or even mathematical artistry (Fibonacci series, 1-20 counting game).

A festive event can also be the catalyst for interest and involvement. In Atlanta, Houston, and Detroit we have run BAM days. These day-long events featured faculty, student, and industry speakers. Mathematics contests and games (some using the computer) have also been a part of theses BAM day affairs.

## 5. MAA/NAM Joint Panel: "The Impact of Computer Science on Mathematics Programs"

David Ballew, Western Illinois University
Robert Webber, Longwood College
Marion Harmon, Florida A \& M University (unable to attend due to weather)

## 6. Summary

## MAA/NAM Joint Panel: "The Impact of Computer Science on Mathematics Programs" Compiled by: David Ballew

Between one hundred and fifty and two hundred persons attended the standing- room -only January $8^{\text {th }}$ panel discussion. Only two of the speakers, Robert Webber and David Ballew, were able to be present due to weather conditions and travel problems. However, these speakers were able to cover the topics and the extra time allowed for considerable audience participation.

There were many comments about the curtailment of the IFRICS and other similar retraining programs. Many in the audience noted the importance of these programs and the contribution that they had made at a critical time. Several speakers noted the availability of Master's level programs and the stumbling blocks that faculty face when working to achieve further training.

This sparked a discussion on the desirability of using Master's level persons in tenure track positions. It was noted that many schools had no option but to use Master's level persons. Several expressed the opinion that a Master's degree was better than some of the doctoral faculty who had not had any computer science training. The contrary view expressed was that in a Ph. D. program, one learns "how to learn" and that there are few others experiences that can teach this; it may be that the ability to teach oneself is as important as formal training in computer science.

Several discussed the acceptance or lack of acceptance of computer science as an intellectual or academic discipline on their campuses. This led to a discussion of the need for a "computer science culture" that could be recognized by our colleagues. It was generally agreed that computer science suffered from youth being a relatively new academic discipline.

The final major topic of discussion covered the advantages and disadvantages of joint mathematics and computer science departments. The audience generally believed that there were many advantages of joint department that were lost when a split occurred; these included the influence of each discipline upon the other, the fact that mathematics is presently being highly impacted by computer technology, and the interaction that can occur when the disciplines are within a single department. Although there are advantages of separate departments, no one mentioned any of these.

It was an excellent session with good speakers. Perhaps the spirited audience interchange was its most important product.

## 7. From the Preface of NAM's 1988 Proceedings

In 1988, NAM published a Proceedings for the second time. The editor of the Proceedings was Don Hill, Florida A \& M University; Member of NAM's Board of Directors, Member-At-Large C. The majority of the contents of the Proceedings was details about activities of the National Meeting. In the preface of that Proceedings the following question was raised:
Do we want to have the Proceedings published each year? Many of our panel discussions and invited addresses are excellent and the information from those talks should be made available to our members who are unable to attend the annual meeting, as well to members of the larger mathematical community. On the other hand, there is most certainly a definite cost associated with such an undertaking, not only in terms of money, but also in terms of time and energy. Please let us have your reaction.

## Q. 1989, NAM'S MAJOR ACTIVITRES

1. NAM's 1989 National Meeting was Held in Phoenix Arizona; danary 13-14, 1989;
in conjunction with the Joint Winter Mathematics Meetings of the AMS/MAA
a. NAM's Board of Directors' Mecting
b. William W.S. Claytor Lecture by James E. Robinson LoMoye-Owens College "Crownover Shifts and Schauder Bases"
c. Panel Topic: "Increasing the Mathematical Pool of Minority Graduate Students in the Mathematical Sciences, Using Cognitive Instructional Strategies in the Undergraduate Program" Genevieve Knight, Coppin Sate College
d. NAM's Business /General Membership Meeting; Rogers Newman, President-NAM, presiding
2. Presentations by Recent Recipients of Ph. D. Degrees in the Mathematical Sciences

NAM decided to sponsor an additional major session at its National Annual Mieeting; a session which would feature under-represented Amcrican minorities who have recently received Ph. D.'s in the mathematical sciences. Each participant would be invited to give a brief expository presentation on a topic related to their research. Again, copies of the talks would be gathered, along with background information about the speakers. The talks would be xeroxed and spiral-binded for distribution. perhaps as part of the Proceedings. By sponsoring this session, NAM intended to introduce these new Ph.D.'s to NAM members and vice versa. Indeed, it was anticipated that the entire mathematical community would be very interested in them. At the 1990 January meeting in Louisville, we invited all those who received doctorates in 1988. For the 1991 meeting, we invited those who eamed their degrees in 1989. ctc. For this first time (Phoenix, January 1989); however, we had invited all those who received their degrees between 1983 and 1987, inclusive. In 1989, the following persons presented during the first year of this session:
"A parametric group sequential procedure for comparing survival distributions of two treatments" De Juran Richardson, Lake Forest Coliege
"A polynomial time algorithm and combinatorial problems" Arouna Davies, Prairie View A\&M University

Nathaniel Dean, Belicore; "Matching extendability and the genus of graphs"
"Invariant Perron-Frobenius nomai form of nonnogative ineducible matrices by a special class of simultancous permutations of rows and columns"
n'Ekwunife Muoneke, Prairic View A\&M University
Melvin Currie, University of Richmond, "Topological implications of metric properties"
"Microlocal Holmgren's theorem for certain hypo-analytic structures"
Shiferaw Berhanu, Temple University
"Singularly perturbed BVP with discontinuous cocfficient" Abdulkeni Zekeria, Fitchourg State Coilege

## 3. From NAM's 1989 Proceedings - Presentations by Recent Ph.D.'s

In 1989 NAM published a Proceedings for the third time. The editor of the Proceedings was Don Hill, Florida A \& M University; Member of NAM's Board of Directors, Member-At-Large C. The majority of the contents of the Proceedings were details about activities of the National Meeting The following article from the 1989 Proceedings of NAM is one that gives insight into the latest new feature of NAM's National Annual Program.

## 4. Background to "Presentations by Recipients of Recent Ph.D.'s"

By Don Hill, Florida A \& M University

The idea of having a special National Association of Mathematicians Session at which recipients of recent doctorates in the mathematical sciences would give brief presentations evolved from an evaluation of the Mathematical Association of America's Blacks and Mathematics Program. Jack Alexander, J. Arthur Jones, and Rogers Newman were instrumental in focusing my attention in this direction. Other discussions with MAA and NAM officers, as well as extended talks with Louise Raphael, chair of the MAA Task Force on Minorities, encouraged me to pursue it. With approval from the NAM Board of Directors, work began seriously in June of 1988.

The first task was to identify blacks who had received their doctorates in the mathematical sciences between 1983 and 1987. These individuals were then invited to give presentations at the January 1989 annual meeting in Phoenix. Seven persons did so, and the results were so satisfying that we planned to invite all blacks who received doctorates in 1988 to give similar talks at the 1990 Louisville meeting. A description of the events listed above will now be given. A summary of interesting information gleaned from the project would then be presented.

The identification of blacks receiving Ph.D. degrees in the mathematical sciences between 1983 and 1987 was difficult. The results are incomplete even though I made nine revisions of the list. There are roughly 185 departments (or units) awarding doctorates in the mathematical sciences in the USA. I purchased a list of labels from AMS and in July sent each chairman a letter explaining the project and asking for the names and addresses of such individuals. There was a response rate of about $60 \%$. Although disappointed by such a low rate for such a simple question, I later learned that was a very good rate! In August, I sent a reminder letter to the $40 \%$ who had not responded. Again, about $60 \%$ responded, leaving a hard core of some $16 \%$ who had not received my letters, chose to ignore them, etc. A strongly worded letter was sent to the presidents of those institutions in October and all except two responded. Thus, the total return after three mailings was an incredibly high $99 \%$, and produced a list of 41 names. A letter was sent in September to all identified individuals residing in the US inviting them to speak and asking for some simple biographical data. Eight accepted the invitation and seven actually appeared for their talks in Phoenix. Of the 41, 34 reside in the US and 19 of those ultimately returned the requested biographical data. Of the other 15,5 names were received so late that they were not invited to speak, but were still asked for the biographical information. One letter was returned "address unknown" and one simply fell through the cracks due to my error. All in all, it was a huge task and I urge anyone attempting a similar project to seek adequate funding and secretarial help. I estimate that I sent over 600 letters and spent 100 to 150 hours on the project.
*Here is a summary of information I found interesting.
*List of Institutions Awarding Ph.D.'s to Blacks from 1983-1987.
Howard University . . . . . . . . . . . 7
UC-Berkeley . . . . . . . . . . . . . . 5
Northwestern University . . . . . . 2
Old Dominion University . . . . . . 2
Southern Illinois University . . . . 2
*23 institutions had one each:
University of Arizona
Auburn University
CUNY Graduate School
Cornell University
Georgia Institute of Technology
Harvard University
University of Hawaii at Monoa
University of Houston
Illinois Institute of Technology
Iowa State University
Lehigh University
Louisiana State University
University of Maryland
University of Massachusetts
Massachusetts Institute of Technology
University of Michigan
University of Mississippi
New Mexico State University
University of Pittsburgh
Rutgers University
Vanderbilt University
Virginia Polytechnic Institute
Wayne State University
*Seven individuals returned to their home countries of:
Ethiopia
Ghana
Jamaica
South Africa
Swaziland
Zaire
Zimbabwe
*Of the 19 providing biographical information and residing in the US:
Undergraduate Institution

Abroad . . . . . . ......... . . . . . . . . . . . . . . . . 7
Historically Black Institutions . . . . . . . . . . . 6
Majority Institutions. . .... . . . . . . . . . . . . . 6
Employment
Academic . . . . .......................................... . . . . . . . . . 14
Historically Black Institutions 5
Non-academic $\qquad$
AT\&T Bell Labs, Bellcore, BDM Corporation, General Dynamics, and McDonnell Douglas
*In closing, let me again state how worthwhile the project was in spite of all the effort it took. If you have ideas on how to facilitate the process, let me know. Biographical information was provided by the following:

| Darry Andrews | University of California at Berkeley (1985) |
| :--- | :--- |
| Shiferaw Berhanu | Rutgers University (87) |
| Donald Ray Cole | The University of Mississippi(85) |
| Melvin Currie | University of Pittsburgh(1983) |
| Arouna Davies | New Mexico State University(86) |
| Nate Dean | Vanderbilt University(87) |
| George Edmunds | Old Dominion University(87) |
| James Ervin Glover | Auburn University(84) |
| Abdulcadir Issa | Howard University(1988) |
| Amha Lisan | Howard University(88) |
| Christopher Mawata | University of Hawaii at Manoa(1987) |
| Walter Miller | CUNY Graduate School(86) |
| n'Ekwunife Muoneke | University of Houston(1985) |
| Mark Muzere | Northwestern University(87) |
| DeJuran Richardson | Northwestern University(87) |
| Bonita Saunders | Old Dominion University(85) |
| Vernise Steadman | Howard University(88) |
| Nathaniel Whitaker | University of California at Berkeley(1987) |
| Abdulkeni Zekeria | Howard University(84) |

* Samuel H. Douglas; former President of NAM died in July 1989;
he contributed greatly to NAM's success.


## These Highlights conclude Chapter III: "The Development of NAM as an Organization of Quality: 1975-1989"

Some Typical NAM Conferences I

Seattle, WA

Some Typical NAM Conferences II


Some Typical NAM Conferences III



Graduate School Representatives at MATHFest IV
North Carolina A \& T State University

## Teachers - Mentors



Dr. Clarence F. Stephens


Dr. Abdulalim A. Shabazz

# CHAPTER IV. A DECADE OF EXPANSION AND GROWTH: 1990-1999 *****HIGHLIGHTS***** 

## A. 1990, NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January 18-20, 1990 in Louisville, KY in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA [Although NAM's Twentieth Anniversary Year was in 1989, it was celebrated in 1990]
a. NAM's Presentations by Recent Ph.D. Recipients; 2:15 p.m., January 18 Conveners: Gerald Chachere, Howard University and Don Hill, Florida A \& M University Presenters:

Rosalyn Williams, Florida A \& M University
Leon Woodson, Howard University
Dennis Davenport, Miami University
Amha Lisan, Louisiana State University
b. NAM's Board of Directors Meeting; 7:00 p.m., January 18
c. NAM's Claytor Lecture; 1:00 p.m., January 19
"The Box Product Problem;" Scott W. Williams, SUNY - Buffalo
d. NAM's Banquet and Cox - Talbot Address [20th Anniversary Celebration]; 6:00 p.m., January 19

Address: "Some Milestones of the Past, Some Challenges of the Future;" Johnny L. Houston Elizabeth City State University
e. NAM's Panel: "How to Make Mathematics Work for Minorities:" 9:00 a.m., January 20

Moderator: Beverly Anderson, Univ. Of the District of Columbus and the Math, Sc. Ed. Board Panelists:

Sylvia Bozeman, Spelman College
J. Arthur Jones, Futura Tech., Inc.
f. NAM's Business Meeting; Rogers Newman, Presiding; 10:00 a.m., January 20

## 2. NAM's Election Results:

a. Don Hill, Florida A \& M University, retired from NAMs Board of Directors at the end of 1989
b. Harriett Walton, Morehouse College, retired from NAM's Board of Directors in 1990.
c. Vivienne Malone-Maves, Baylor Univ, was re-elected to the position of Member-At-Large C.
d. Robert E. Bozeman, Morehouse College was elected Secretary-Treasurer of NAA
e. Wilbur L. Smith, NC A \& T St. Univ. was clected to the position, Momber-A* .arge B.
3. NAM's National Headquarters/Office moved to the Campus of Ereabeth City State University in Elizabeth City, NC on July 1,1990. ECSU's Chancellor Jimmy R. Jenkins provided the space.
4. Second Bouchet Conference heid in Accra, Ghana August 14 -17, 1990.

The Second Edward Bouchet International Conference on Plysics and Technology was held in Accra, Ghana, August 14-17, 1990. Although many of the presenters were physicists: like Walter A. Massey, Director of Argonne National Lab (later named Director of the Nationai Science Foundation by President Bush): a number were applied mathematicians including Willian Massey, A T T - Bell Labs, Donald St. Mary, U-Mass, Amherst and James C. Tumer, jr., Hampton University. The Edward Bouchet Institute-ICTP was created at the frst Edward Bouchet International Conference on Physics and Technology was held Junc 9-11, 1988 at the ICTP in Trieste, Italy. Edward Alexander Bouchet was born in New Haven, CT in 1852. Bouchet became the first African American to carn the Ph. D. degree when Yale University bestowed that degree on him: in physics in 1876.

## 5. ICM-90

The International Congress of Niathematicians (ICM) convened August 21-29, 1990 in Kyoto, Japan. Among the NAM members in attendance at ICM-90 were Prof. Johmy L. Houston of Elizabeth City St. Univ and Professors James Donaldson and Daniel Williams of Howard Univ.
6. Professor Arthur Bragg was awarded an konerary Doctor of Science by Delaware Siate College; Dover, Delaware during Spring Commencement exercises in May 1990.

## 7. Williams Hawkins Named First Director of SUMMA

The Mathematical Association of America (MAA) appointed Professor William Hawkins of the University of the District of Columbus as the First Director of SUMMA (Strengthening Minority Mathematics Achievement) Office, in this position Hawkins scrved as the project director of a long term comprehensive national program for minorities in mathematics.

## 8. The Eastern Pennsylvania-Delaware Section MAA Symposium

The Eastern Pennsylvania-Dclaware Section of the Mathematical Association of America (MAA) Sponsored a Symposium on "Under-represented Groups in Mathematics: Overcoming Obstacles" at its October 13, 1990 meeting at the Community College of Philadelphia. Johny L. Houston of Elizabeth City State University and Uri Treisman of the University of Califomia at Berkcioy each gave a one-hour address before the group and there were two one-hour pancls: "Fiters in the Pipeline" and "Pumps in the Pipeline."

## 9. Houston Invited to Speak at Chairs Coilloquim.

The Board of Mathematical Sciences held its annual meeting of Department Chairs in Washington, DC on October 1990 Johnny L. Houston gave a presentation at the meeting cotiticd: "The Challconge to Provide all Americans with an Excellent Education in Mathematics."

## B. 1991, NAM'S Major Activities and Some Noteworthy Items of Interest

1. NAM's National Meeting, January 17-19, 1991 in San Francisco, CA in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. NAM's Board of Directors Meeting; 7:00 p.m., January 17
b. NAM's Presentations by Recent Ph.D. Recipients

Presenters: No Presentations were Recorded
c. NAM-MAA Panel: "Nurturing Minority Graduate Students in Mathematics;" 1:00 p.m., Jan. 18 Moderator: Sylvia T. Bozeman, Spelman College
Panelists:
Mary Gray, The American University
Raymond Johnson, University of Maryland, College Park
Abdulalim Shabazz, Clark-Atlanta University
Richard Tapia, Rice University
d. NAM's Banquet, 6:00 p.m., January 18
e. NAM's Business Meeting; Rogers Newman, Presiding; 10:00 a.m., January 19
f. NAM's William W. S. Claytor Lecture; 1:00 p.m., January 19
"Projective Subspaces of Hermitian Symmetric Spaces;" Amassa Fauntleroy, NC St. University
2. NAM's Board of Directors held its Spring Meeting at NAM's National Headquarter/Office May 24-25, 1991.
3. NAM's Board of Directors presented Elizabeth City State University's (ECSU)

Chancellor Jimmy R. Jenkins with NAM's second Distinguished Service Award, May 24, 1991.
The Inscription of the Award read: "This award is given in recognition of your foresight and vision as an administrator, your commitment to scholarship as a scientist, your support for professional enhancement as an educator, and for the support and service rendered NAM."
4. The Third Pan-African Congress of Mathematicians met in Nairobi, Kenya; August 20-28, 1991. Also held during the Congress was a Symposium on Mathematics Education in Africa for the $21^{\text {st }}$ Century, and the Third Pan African Olympiad. The next Pan-African Congress of Mathematicians was scheduled to convene in 1995.
5. Prof. J. Ernest Wilkins, Jr. was appointed to the position of Distinguished Professor of Applied Mathematics and Mathematical Physics at Clark-Atlanta University in 1991.
6. Prof. Clarence F. Stephens was awarded the 1991 Distinguished Service Award by Potsdam College of the State University of New York.

## 7. Professor Raymond Johnson was appointed Chairman of the Department of Mathematics At the University of Maryland - College Park, effective August 1991.

8. Professor Isom Herron spent the 1990-1991 academic year at the Massachusetts Institute of Technology as a Visiting Professor of Mathematics
9. Professor Evelyn Boyd Granville came out of retirement and is back in the classroom again. She accepted the position as a half - time faculty member in the Department of Mathematics at the University of Texas at Tyler where she occupied the Sam A Lindsey Chair.
10. Maria A. Reid was elected Vice-Chair for Two Year Colleges of the Mathematical Association of America, Metropolitan New York Section.
Her term is for the two year period 1991-1993. Also on May 29, 1991, Dr. Reid was the recipient of the Wilhelmina B. Granville Award from the Black Faculty and Staff Association of the Borough of Manhattan Community College of the City University of New York in recognition of outstanding leadership in and contribution to higher education.
11. B. C. Oyuke, Professor of Mathematics at Kenyatta University; Nairobi, Kenya was selected Chairman of the Local Organizing Committee for the Third Pan African Congress of Mathematicians that was held in Niarobi, Kenya; August 20-28, 1991. Oyuke was elected Vice President of the African Mathematical Union. Oyuke attended Clark-Atlanta University as an undergraduate student.
12. Undergraduate MATHFest was held for the first time at Hampton Univ.; November 1991. It was coordinated by James C. Turner, Jr. and John Hurdle.
C. 1992, NAM'S Major Activities and Some Noteworthy Items of Interest
13. NAM's National Meeting, January 9-11, 1992 in Baltimore, MD in Conjunction with the Annual Joint Winter Meetings of the AMS/MAA
a. NAM's Board of Directors Meeting: 7:00 p.m., January 9
b. NAM's Luncheon and Cox - Talbot Address; 12:00 noon, January 10 Address: "Ethnomathematics, a Natural Focus for NAM," Gloria Gilmer, Milwaukee, WI
c. NAM-MAA Panel: "Fate of the Minority Mathematics Students;" 8:30 a.m., January 11 Moderator: William A. Hawkins, University of the District of Columbus Panelists: Abdul-Alim Shabazz, Clark-Atlanta University Uri Triesman, University of Texas - Austin James C. Turner, Jr., Hampton University
d. NAM's Business Meeting; Rogers Newman, Presiding; 10:00 a.m., January 11
e. NAM's Presentations by Recent Ph.D. Recipients; 1:00 p.m., January 11

Conveners: Gerald Chachere, Howard University
Presenters: (1) Stella Ashford, Southern University; "On the Ramification of Two"
(2) Teresa D. Edwards, Spelman College;
"A Box Method for Minimizing Strictly Quadratic Functions Over a Convex Set"
2. NAM's Election Results for the Term 1992-1994:
a. Rogers J. Newman of Southern University was re-ciected President
b. John W. Alexander, Jr.; The U. of the District of Columbus was elected Vice President.
c. Loretta M. Braxton, Virginia State University was elected Editor.
d. Eleanor G. D. Jones was elected to the position, Member-At-Large.
3. NAM's Board of Directors Presented Distinguished Service Awards For Many Years of Service to:
a. James A. Donaldson, Howard University, for outstanding service as NAM's Editor, and
b. Harriett Walton, Morehouse College, for excellence service as Secretary-Treasurer
4. Walter Massey, Director of the National Science Foundation (NSF) addressed the Joint

Winter Mathematics Meetings in Baltimore in a Symposium on January 9 at 7:00 p.m.
A reception followed at 8:00 p.m. He spoke on the policies and prospects of the NSF.
5. NAM's Board of Directors held its Spring Meeting at NAM's National Headquarter/Office May 22-24, 1992.
6. NAM-MAA held Joint Panel at the 1992 Annual Southeast MAA Regional Meeting

The thirtieth Annual Southeast Regional Meeting of the MAA was held at Kennesaw College in Marietta, GA; April 10-11, 1992. This was the first joint venture between NAM and the Southeast Region. The panel was moderated by Ronald Biggers of Kennesaw College and the panelists were: Henry Gore, Morehouse College; Wanda Patterson, Spelman College; and Carl Pomerance, University of Georgia.
7. John W. Alexander, Jr. NAM's Vice President Attended CBMS' Spring Meeting

NAM's Vice President, John W. Alexander, represented NAM at the $67^{\text {th }}$ Annual Spring Meeting of the Conference Board of Mathematical Sciences (CBMS) May 7-8, 1992. The Meeting was held at the Dolciana Mathematical Center in Washington, DC.

## 8. NAM Began Bata Bank on Black Graduate Students

In 1992, NAM completed its first survey of Black graduate students in mathematics. The Survey was conducted by Professor Gloria Hewitt, Professor of Mathematics at the University of Montana and Ms. Monica Fowlkes of the American Mathematical Society. According to the responses of the survey, there are about 200 black graduate students in mathematics; however only $55 \%$ of the doctoral granting institutions responded.

## 9. Professor Beverly Anderson Left MSEB and Returned to UDC

Beverly Anderson left her position as Director of Minority Affairs at the Mathematical Sciences Education Board (MSEB) and returned to her position on the faculty at UDC; January 1992. The National Convocation on the topic: "Making Mathematics Work for Minorities," held at the National Academy of Sciences was one of her major achievements during her tenure at MSEB.

## 10. Don Hill Received Distinguished Teaching Award

Former NAM Board Member Don Hill of Florida A \& M University received the first annual "Florida Distinguished University/College Teaching of Mathematics Award" from the Florida Section of the MAA during its 1992 Section Meeting.

## D. 1993, NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

## 1. NAM's National Meeting, January 14-16, 1993 in San Antonio, TX in Conjunction with the Annual Joint Winter Meetings of the AMS/MAA

a. Board of Directors Meeting; Thursday, January 14 - 4:30
b. Presentations by Recent Doctoral Recipients

Moderator: John W. Alexander, Jr.; University of the District of Columbia
Presenters:
Patricia Beaulieu, University of Southwestern Louisiana
Boyd Coan, Hampton University
Charles B. Pierre, San Jose State University
Eleanor Velasquez, University of California at Berkeley
c. NAM's Informal Session; Friday, January 15; 7:00 p.m. to 9:00 p.m.
d. NAM's Business Meeting; Convener: Rogers J. Newman, Southern U.; Jan. 16; 10 a.m.
e. NAM's Claytor Lecture; Saturday, January 16; 1:00 p.m.

Presenter: Fern Hunt, Howard U. and National Institute of Standards and Technology
Topic: "Approximating the Invariant Measures of Finite Dimensional Maps"
2. AMS-MAA-NAM Session at Joint Winter Meetings, January 13-14, 1993
"Mathematics: A Catalyst for Education Progress in the Year 2000 and Beyond -
Filling the Education Pipeline"
a. Program A: January 13, 1993
(1) Pre-college Success Programs in Texas

2:15-2:35 Manuel Berriozabal, University of Texas at San Antonio
2:45-3:05 General Marshall, Houston-Tillotson College
(2) Women in Mathematics

3:15-3:35 Etta Falconer, Spelman College
3:45-4:05 Mary Gray, American University
4:15-4:35 Rhonda Hughes, Bryn Mawr College
(3) Minorities in Mathematics

4:45-5:05 Evelyn Boyd Granville, University of Texas - Tyler
5:15-5:35 Robert Meggison, University of Michigan

## b. Program B: January 14, 1993

(3) Minorities in Mathematics - Continued

2:15-2:35 Lius Oritiz-Frranco, Chapman University
(4) Undergraduate Research in Mathematics

2:45-3:05 Richard Alo, University of Houston - Downtown
3:15-3:35 Abdulalim Shabazz, Clark Atlanta University
3:45-4:05 Richard Tapia, Rice University

## 3. Spelman College Hosts MATHFest '93 (Undergraduate MATHFest II) March 18-20, 1993

MATHFest 93 , an undergraduate research conference in mathematics was hosted by Spelman College' Department of Mathematics. The Conference Directors were Professors Teresa Edwards and Sylvia Bozeman. The Conference was funded by the National Security Agency (NSA). Approximately 100 persons attended; mostly junior and senior mathematics majors. The objectives of the Conference was to motivate undergraduate mathematics majors to pursue graduate studies and research careers in one of the mathematical sciences. The presenters included: Danielle Carr, New York University; Nathaniel Dean, Bell Communications Research; Johnny L. Houston, Elizabeth City State University; Aderemi O. Kuku, University of Ibadan, Ibadan, Nigeria; Iris M. Mack, President and CEO , Associated Technologists; Freda Porter-Locklear, Pembroke State University; and Wanda Patterson, Spelman College.

## 4. Distinguished Service Award Presented to Aderemi O. Kuku at Undergraduate MATHFest II

Aderemi O. Kuku was presented a Distinguished Service Award by NAM during Undergraduate MATHFest II that was held on the campus of Spelman College in Atlanta, GA March 18-20, 1993. Professor Kuku, is visiting in the United States during the 1992-1993 academic year. Dr. Kuku is currently serving as President of the African Mathematics Union. The Citation read as follows:

# The Distinguished Service Award 

Is Hereby Presented To

Aderemi Oluyami Kuku, Ph.D.

A World Class Mathematician<br>Who Has an Exemplary Scholarship - Productivity Record<br>Who Is A Master Teacher - Gifted Presenter<br>Who Provides Effective Leadership In Mathematics - Mathematics Education<br>Who Promotes Excellence in Mathematics, Especially among People Of Color

Presented At MATHFest '93; March 18-20, 1993
Spelman College Atlanta, Georgia USA
Presented by The National Association of Mathematicians, NAM

## 5. Abdulalim A. Shabazz Received the 1992 AAAS Mentor Award

Abdulalim Shabazz, Chair, Department of Mathematical Sciences, Clark Atlanta University was the recipient of the 1992 AAA Mentor Award which was presented in Boston, MA on February 15, 1993. The Award honors a member of the Association who has demonstrated extraordinary leadership in efforts above and beyond the call of duties to increase the participation of women, African Americans, American Indians, Hispanic Americans, and individuals with disabilities in science and engineering fields and careers. Dr. Shabazz is widely praised by his former students who cite him as a teacher, par excellence; mentor; friend and motivator of mathematical excellence. Established by the AAAS Board of Director in 1991, the Award consists of a prize of $\$ 5,000.00$ and a Commemorative Plaque.

## 6. Walter Massey Leaves NSF

Walter Massey retired as Director of the National Science Foundation, the leading agency in the USA for support of research and education in mathematics, science, and engineering. The Foundation had a three billion dollars budget and funds grants for nearly 15,000 projects each year. Dr. Massey accepted a new position as Senior Vice President and Provost of the University of California, the number two position in the ten campus University of California system.

## 7. Lee Lorch Honored

Lee Lorch was awarded the degree of Doctor of Laws, honoris causa, by York University on June 15, 1993. Professor Lorch has been with York University since 1968. Currently he is Professor Emeritus and Senior Scholar. In addition, to an outstanding mathematical career, Professor Lorch has been a lifelong advocate for civil rights and has fostered the participation of women and visible minorities in mathematics. He was honored by the Association for Women in Mathematics and received a special award from Howard University for his contributions to civil rights and the education of black mathematicians.

## 8. Joint NAM-MAA Panel on Minority Participation

The $72^{\text {nd }}$ annual meeting of the Southeastern Section of the MAA was held April 2-3, 1993 at Coastal Carolina College in Conway, South Carolina. For the second consecutive year, NAM was invited to participate in the Meeting. NAM and the Southeastern Section on Minority Participation jointly sponsored a panel to discuss strategies for increasing the involvement of all mathematicians in the southeast region. The joint panel consisted of Sylvia Bozeman, Spelman College; Charles Cleaver, The Citadel; Jerry Shipman, Alabama A \& M University; and Don Kreider, President of the Mathematical Association of America.

## 9. Donaldson Elected as MAA's Vice President

James Donaldson, former NAM Newsletter Editor was elected to serve as MAA’s second Vice President. His term covers the years: 1994-1995.

## 10. Professor Hill Taught in Africa

Don Hill, Professor of Mathematics at Florida A \& M Univ. and former NAM Board Member taught statistics for forty agriculture students at the new "Africa University" in Mutare, Zimbabwee, during the months of May and June 1993. This was volunteer service.

## 11. Undergraduate MATHFest III, a Successful Conference

Undergraduate MATHFest III, sponsored by the National Association of Mathematicians and locally hosted by the Mathematics Department of Southern University in Baton Rouge, LA, and with major funding by the National Security Agency (NSA) was described by all who attended as a grand success. There was a variety of presenters and panelists that informed, motivated and inspired the juniors and seniors present "to be their own success story."

## 12. Spelman To Establish Mathematics Center

The W. K. Kellogg Foundation awarded Spelman College a 3 million dollars grant to establish a Center for Scientific Application of Mathematics. Sylvia Bozeman was selected to serve as Director of the Center.

## D. 1994 MARKS NAM'S $25^{\text {TH }}$ YEAR; NAM'S MAJOR ACTIVITIES IN 1994 AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January $13-15,1994$ in Cincinnati, OH in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. Board of Directors Meeting; 4:30 p.m., January 13
b. Presentations by Recent Doctoral Recipients; 3:15 p.m.; January 13

Moderator: John W. Alexander, University of the District of Columbia
Presenters:
Ollies Manyes, Bradley University
Vernise Steadman, University of the District of Columbia
Lloyd Edwards, University of North Carolina - Chapel Hill
Freda Porter - Locklear, Pembroke State University
Marcia A. Ciol, University of Washington - Seattle
c. NAM's $25^{\text {th }}$ Anniversity Banquet and Cox - Talbot Address

Speaker: Etta Falconer, Spelman College
Topic: "Challenges and Opportunities for Minorities in Science and Mathematics"
d. The Claytor Lecture:

Speaker: James C. Turner, Jr., Ohio State University
Topic: "A Novel Approach to Turbulent Modeling"
e. NAM's Panel

Topic: "Undergraduate MATHFest, One Approach to the Pipeline Issue"
Moderator: Johnny L. Houston, Elizabeth City State University
Presenters:
Jason Lewis, Morehouse College; Dawn Lott - Crumpler, Northwestern University
Patricia Beaulieu, University of Southwestern LA; Steve Shreve, Carnegie Mellon University
f. NAM's Business Meeting, Rogers J. Newman, Jr., Presiding
2. NAM's Election Results for the Term 1994-1996:
a. John W. Alexander, Jr.; The Univ. of the District of Columbia was elected President.
b. Loretta M. Braxton, Virginia State University was re-elected Editor.
c. Wilbur Smith, NC A \& T Univ. was elected to the position, Member-At-Large, Region B.
d. Rogers J. Newman was appointed as NAM's President, Emeritus.
3. NAM's Expanded its Board of Directors - Special Election, 1994:
a. Stella Ashford, Southern University was elected Vice-President (to fill vacancy).
b. Raymond Johnson, U. of Maryland/College Park; Majority Institution Representative.
c. Nathaniel Dean, Bellcore in New Jersey; Industry/Government Representative (New Position).

## 4. NAM established an annual Regional Faculty Conference on Research and Teaching Excellence

NAM's first Regional Conference on Research and Teaching Excellence was held on the campus of Morris-Brown College in Atlanta, GA on April 22-23, 1994 with participants from Region A as well as participants from other regions. This was the first Regional Conference for faculty. The Conference is scheduled to be held each spring.

The purpose of the Conference is to enhance facuity development in both research and teaching. The general format of the Conference is presented in Chapter V. At the recognition dinner, the following persons were honored:

> Frank James, Past President, 1970-73
> Theodore Sykes, Past President, 1973-75
> Eleanor Jones, Past Board Member, 1975-94
> Vivienne Mayes, Past Board Member, 1987-92
> Abdulalim Shabazz, Mentoring and Teaching Award Beauregard Stubblefield, Research and Exemplary Service
> Japheth Hall Jr., Past President, 1975-76, posthumously
> Samuel Douglas, Past President. 1997-83, posthumously
> M. Solveig Espelie, Past Board Member,posthumously.

## 5. NAM established the Bharucha-Reid Lecture

A Lecture was established in honor of Albert Turner Bharucha-Reid in conjunction with the Regional Faculty Conference on Research and Teaching Excellence. "We honor you as a founder of Probabilistic Analysis. A great mathematician of great distinction, you sensed the importance and glimpsed the possibilities of new developments in your field and then led the way to the application of new knowledge. As a teacher, researcher and writer of advanced texts, you are recognized world-wide as a scholar on the cutting edge of mathematics." The first Bharucha Reid Lecture was given by Tepper Gill, who was one of the thirteen students who received a Ph. D. degree under the advisement of Professor Bharucha-Reid. The title of his presentation was "Gronwall Inequalities for Weak Solutions of Nonlinear Systems With Applications to the Navier-Stokes Equations."

## 6. NAM established the David Blackwell Lecture

The Lecture was established in conjunction with the Summer Mathematics Meetings and named in honor of David Blackwell in recognition of more than fifty professional years as a world-class mathematician, gifted teacher and productive scholar. Dr. Blackwell was elected to the American Academy of Arts \& Sciences and was the first and currently is the only African-American mathematician to be elected to the National Academy of Science.

## 7. Undergraduate MATHFest IV was Proclaimed a Success

Undergraduate MATHFest IV was held at NC A \& T State University in Greensboro, NC on October 13-15, 1994. Undergraduate MATHFest IV, a research conference for promising undergraduate mathematics majors, focused on under-represented minority students; introducing the students to several aspects of research and promoting graduate school opportunities. The conference was sponsored by NAM, with grant support from the National Security Agency (NSA). More than 125 attended and proclaimed it a success.

## 8. NAM established the J. Ernest Wilkins Lecture

The Lecture was established in conjunction with Undergraduate MATHFest and named in honor of J. Ernest Wilkins, a world-class mathematician, physicist and engineer. Wilkins received his B.S. degree as a Phi Beta Kappa graduate at the age of 16 , his M. S. degree at age 17, and his Ph.D. degree at the age of 19 . Although he has been highly praised as a superb practitioner of his crafts, Dr. Wilkins is also widely recognized and acclaimed as a highly productive scholar, having published more than 80 journal articles and having produced an additional 22 unpublished reports for the Atomic Energy Commission.

## 9. NAM established its Lifetime Achievement Award and presented the First Two

In 1994, NAM presented its first two Lifetime Achievement Awards to David Blackwell (August 1994) and J. Ernest Wilkins (October 1994). Each of these world-class mathematicians were given the Award after the inaugural lecture named in his honor, respectively. The Award is given to honor distinguished mathematical professionals whose professional lives over a period of twenty-five (25) years or longer have been exemplary - par excelience and worthy of emulating. To date, NAM has selected to give recognition and honor to seven (7) persons. To see all recipients of NAM's Lifetime Achievement Award, see Chapter V.

## 10. President John W. Alexander established the President's Perspective Column

The column is a one- page article which shares pertinent information with NAM's general membership and is to be published in each NAM newsletter, beginning in 1994.

## 11. Johnny L. Houston established the "Spotlight on a Mathematician" Column

The column is a one page article which gives a personal and professional profile of an American minority mathematician, and it would be included in each NAM newsletter beginning in 1994. The following editions carried "Spotlights" on the following mathematicians in 1994:

$$
\begin{array}{ll}
\text { Summer } 94^{\prime} \text { - } & \text { David Blackwell } \\
\text { Fall } 94^{\prime} \text { - } & \text { J. Ernest Wilkins, Jr. } \\
\text { Winter } 94^{\prime} \text { - } & \text { William Waldron Schieffelin Claytor }
\end{array}
$$

## 12. Etta Falconer received Distinguished Service Award

Etta Falconer received the Distinguished Service Award during the May Commencement at Spelman College. Each year this award is given by Spelman President, Johnetta Cole, to a selected member of the faculty. Dr. Falconer has served Spelman in many capacities, including Chairperson of the Department of Mathematics, Department, Chairperson of the Natural Sciences Division, and in her current position of Associate Provost for Sciences Programs and Policy.

## 13. Perfect Score for Americans in World Math Tourney

In July 1994, six American high school students astonished judges at a world mathematics competition in Hong Kong, achieving perfect scores on a nine-hour examination for the first time in the tourney's 35 -year history. The youth's flawless performance on the tests of algebra, geometry and number theory tests swept them to victory over 360 other students from 68 countrics, bringing the USA its first triumph at the International Mathematical Olympiad since a USA team tied the Soviet Union in 1985. China and Russia have dominated the competition in recent years.

## 14. NAM revised its By-Laws: See Chapter V (also further revisions in 1997-99).

The By-Laws of NAM were last revised in 1979. Since that time NAM as an organization had changed in depth, breadth and procedure. Moreover, NAM had changed a great deal, programmatically, and had broadened its objectives. The Board of Directors had expanded its committee structure and the National Office had begun to function as a full-time service arm of the organization. The By-Laws were changed to reflect the growth of the organization as it functioned in 1994; later as it had grown by 1997 thru 1999.
During 1994, NAM's $25^{\text {th }}$ Anniversary Year, it was NAM's intent to expand its annual activities and programs, as well as to increase the number of members on its Board of Directors. These achievements are reflected under 1994 items of interest.

## E. 1995 NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January 5-7, 1995 in San Francisco, CA in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. Board of Directors Meeting; 12:00 p.m., January 5
b. Presentations by Recent Doctoral Recipients; 3:45 p.m.; January 6

Moderator: Stella Ashford, Southern University
Presenters: Juanita Bates, Southern University
Duane Cooper, University of Maryland/College Park
Dawn Lott-Crumpler, University of Maryland/College Park
Aniekan Ebiefung, University of Tennessee, Chattanooga
c. Banquet and Cox - Talbot Address

Speaker: William Hawkins, University of District of Columbia
Topic: "Some Perspective about Under-represented American Minorities in Mathematics "
d. The Claytor Lecture:

Speaker: James Curry, University of Colorado
Topic: "Endomorphisms and the Factorization of Polynomials"
e. NAM's Panel

Topic: "NAM's First Quarter Century - The Past, The Present, and the Future"
Moderator: Mary Hawkins, Prairie View A \& M University
Presenters:
Rogers Newman, Southern University
Lee Lorch, York University
Janis Oldham, North Carolina A \& T State University
John W. Alexander, Jr., University of District of Columbia
f. NAM's Business Meeting, John W. Alexander, Jr., Presiding
2. NAM held its second annual Regional Faculty Conference on Research and Teaching Excellence (with the associated Bharucha-Reid Lecture)

Texas Southern University hosted the 1995 Regional Faculty Conference on March 3-4, 1995 in Houston, TX. The Conference Coordinators were Mary S. Hawkins, Board Member - Region C, Willie E. Taylor, Jr. (faculty coordinator), and James Ginn, Chairman, Mathematics Department, Texas Southern University. The Albert Turner Bharucha-Reid Lecture was given by Llayron L. Clarkson, Texas Southern University. His presentation was entitled: "On Certain Types of Polynomials."

## 3. NAM's 1995 David Blackwell Lecture

The 1995 David Blackwell Lecture was presented by Donald St. Mary, University of Massachusetts/Amherst on August 7, 1995. The topic was "Computational Ocean Acoustics." The Lecture was given during the 1995 Joint Summer Meeting (MAA 1995 Mathfest) in Burlington, Vermont at the University of Vermont.

## 4. NAM held Undergraduate MATHFest V (with the associated J. Ernest Wilkins Lecture)

Undergraduate MATHFest V was hosted by the Department of Mathematics at Clark-Atlanta University in Atlanta, GA on October 26-28, 1995. The local coordinator for the conference was Abdulalim Shabazz. The J. Ernest Wilkins Lecture was given by Earl Barnes, Georgia Institute of Technology. The title of his presentation was "Eigenvalues and Graph Coloring."
5. Conference of African American Researchers in the Mathematical Sciences (CAARMS) held at MSRI

The Mathematical Sciences Research Institute (MSRI) in Berkeley, CA hosted the first conference of African American Researchers in the Mathematical Sciences, June 21-23, 1995. The Conference was officially supported by MSRI, A T \& T Bell Labs and the Department of Energy. The Conference was organized by Raymond Johnson, William Massey and James C. Turner, Jr. The Conference focused on providing minority role models, mathematical directions and professional/moral support to African American Graduate students in the mathematical sciences. This Conference, for graduate students, is the Counterpart of the Undergraduate MATHFest Conference. The Conference attracted approximately 80 participants, about 35 of whom were African Americans with earned doctorates in the mathematical sciences.

## 6. Lee Lorch Honored - Received NAM's Third Lifetime Achievement Award

On June 9-10, 1995, York University in Toronto, Canada hosted the Lee Lorch Conference in Honor of Lee's $80^{\text {th }}$ birthday (September 20, 1995). The Conference followed the meeting of the Canadian Mathematical Society and took place prior to the Field's Institute. The Conference involved seventeen presentations in the areas of mathematics in which Lee had shown interest or did scholarly work. On the evening of June $10^{\text {th }}$, a banquet was held. At the banquet, NAM (Alexander and Houston were in attendance) presented Lee Lorch with NAM's third Lifetime Achievement Award. The inscription read, in part,.. ."For your more than 50 years of exemplary services to the Mathematical Sciences Community and for Caring about all of Humanity ..."

## 7. Vivienne Malone - Mayes Succumbed

On June 9, 1995, Vivienne Malone - Mayes died ending an impressive career as a mathematician and as a bountiful contributor to humanity. She retired from her faculty position at Baylor University in May 1994. Prior to her retirement she had been very active in the mathematical sciences community. She was a founder of NAM and, in recent years, a member of NAM's Board of Directors. She was also active with AWM, MAA and other mathematical sciences organizations.

## 8. Fourth Pan -African Congress of Mathematicians held in Ifrane, Morocco

The Pan - African Congress of Mathematicians held its fourth Conference in Ifrane, Morocco, September 18-26, 1995 at the new Al Akhawayn University in the picturesque mountains of Ifrane. More than 200 persons attended and nearly 100 presentations were given. Most large African countries were represented and persons from at least 15 countries outside of Africa participated. NAM was represented by Alexander and Houston who made presentations. The Congress was organized by the African Mathematical Union; Aderemi O. Kuku was the outgoing president.

## 9. The Society of Industrial and Applied Mathematics (SIAM) held a Diversity Day

Three Rice University applied mathematics students organized a day long "Graduate Student Focus on Diversity" on October 24, 1995 at the SIAM Meeting in Charlotte. There were two sessions of twenty minutes talks by graduate students. Two of the student organizers had attended a NAM's Undergraduate MATHFest and CAARMS1 at MSRI in 1995. The day concluded with a program entitled: "The Real Deal: An Informal Graduate Student Session." There was a strong recommendation to SIAM to have a similar program for the next year.

## 10. Tepper Gill Honored in Italy

Tepper L. Gill of Howard University, created scientific news and was featured on Italian Television for his pioneering work in mathematical physics during his visit in August 1995. Dr. Gill was honored at the inaugural ceremonies of the Instituto Per la Ricerca DiBase. At the workshop entitled Frontiers in Theoretical Physics, Dr. Gill presented a paper on the topic: "Classical and Quantum Relativistic Dynamics: A Proper Time Lie-Santilli Formulation."

11. "Spotlight On A Mathematician" (By J. L. Houston) featured the in 1995 Newsletters: Spring "95: Elbert Frank Cox and Richard R. Talbot<br>Fall '95<br>Winter ‘95<br>Vivienne Malone - Mayes<br>Evelyn Boyd Granville and Marjorie Lee Browne.

## F. 1996 NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

## 1. NAM's National Meeting, January 11 -13, 1996 in Orlando, FL in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA

a. Board of Directors Meeting; 12:00 p.m., January 11
b. Presentations by Recent Doctoral Recipients; 2:15 p.m.; January 12

Moderator: Stella Ashford, Southern University
Presenters:
Patty Anthony, National Security Agency
Shannon Cobb, University of Alabama - Huntsville
Debra Curtis, Bloomfield College
Maria Dunn, Southern University
Andrea Lawrence, Spelman College
Joseph Meyiness, Southern University
Gregory Smith, Norfolk University
c. NAM's Cox - Talbot Address and Banquet; 6:00 p.m.; January 12

Speaker: Evelyn Boyd Granville, University of Texas at Tyler
Topic: "Some Perspective about Mathematics and Mathematics Education"
d. The Claytor Lecture; 9:00 a.m., January 13

Speaker: William Massey, Lucent Industries, Bell Labs A T \& T
Topic: "The Mathematics of Queing Networks"
e. NAM's Panel Topic: "Affirmative Action"

Moderator: Robert Bozeman, Morehouse College
Presenters:
Rhonda Hughes, Bryn Mawr College
Arlie Petters, Princeton University
Richard Tapia, Rice University
James Turner, Jr., Florida A \& M University
f. NAM's Business Meeting, John W. Alexander, Jr., Presiding
2. NAM's Election Results for the Term 1996-1998:
a. John W. Alexander, Jr.; The U. of the District of Columbia was re-elected President.
b. Robert Bozeman, Morehouse College, was re-elected Secretary-Treasurer.
c. Mary Hawkins, Prairie View A \& M U. was re-elected Region C, Member-At-Large.
d. Jacqueline B. Giles, Houston Community College System was elected to the position Community College - Representative (A new position on NAM’s Board)

## 3. NAM held its Third Annual Regioral Faculty Conference on Research and

Teaching Exsellence (with the associated Bharucha-Reid Lecture)
Norfolk State University hosted the 1996 Regional Faculty Conference on March 22-23, 1996 in Norfolk, VA. The Conference Coordinators were Wilbur Smith, NAM`s Board Member, Region B, Daryl Correy of the Mathematics Department, Norfolk State University; and Phillip McNeil, Chairman, Mathematics Department, Norfolk State University. The Albert Turner Bharucha-Reid was given by Ronald Mickens, Distinguished Callaway Professor of Physics, Clark - Atlanta University. His presentation was entitled: "Analysis of WCM Oscillator ODE."

## 4. NAM's 1996 David Blackwell Lecture

The 1996 David Blackwell Lecture was given by Johnny L. Houston, Elizabeth City State University on August 11, 1996. The topic was "The No-Three-In-Line Problem, a 1996 Update."
The Lecture was given during the 1996 Joint Summer Meeting (MAA 1996 Mathfest) in Seattle, Washington at the University of Washington. This was the first time that the Lecture was unopposed by other Conference activities.

## 5. NAM held Undergraduate MATHFest VI (with associated J. Ernest Wilkins Lecture)

Undergraduate MATHFest VI was hosted by the Department of Mathematics at Xavier University in New Orleans, LA on October 24-26, 1996. The local coordinator for the conference was Bhu Dev Sharma, Chair of the Department of Mathematics at Xavier University . The J. Ernest Wilkins Lecture was given by Isom Herron, Rensselear Ploytechnic Institute. The title of his presentation was "The Fluid Motion."
6. The Second Conference of African American Researchers in the Mathematical Sciences (CAARMS2) was held at The Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) on the campus of Rutgers University in Piscataway, NJ.

The Center for Discrete Mathematics and Theoretical Computer Science at Rutgers University in Piscataway, NJ hosted the second conference of African American Reseachers in the Mathematical Sciences, June 26-28, 1996. The Conference was officially supported by DIMACS, Lucent Technologies - A T \& T Bell Labs and the Advanced Studies Institute at Princeton University. The Conference was organized by William Massey and Nathaniel Dean of Bell Labs. The Conference focused on providing minority role models, mathematical directions and professional/moral support to African American Graduate students in the mathematical sciences. It is the conference for graduate students that Undergraduate MATHFest is to undergraduate students. The Conference attracted about 100 participants, 40 of whom were African Americans with earned doctorates in the mathematical sciences.

## 7. NAM Presented AWM with Resolution

During the Joint Winter Mathematics Meetings in Orlando, FL; AWM held a luncheon to celebrate its $25^{\text {th }}$ Anniversary. During the Luncheon. NAM presented AWM with a Congratulatory Resolution.

## 8. Granville Honored with NAM's Lifetime Achievement Award

Evelyn Boyd Granville, a professor of mathematics at the University of Texas at Tyler and the first African American woman to earn a Ph.D. in mathematics (Yale University, 1949) was honored for her outstanding achievement at the 1996 annual NAM National Meeting in Orlando, FL. She also gave the Cox Talbot Address at NAM's Banquet. She was the fourth person for whom NAM has given its highest award.

## 9. Prof. Rosaland Exum Honored at NAM's 1996 Faculty Regional Conference

Professor Rosaland Exum of Hampton University was recognized and honored for her 50 years of teaching mathematics at the collegiate level. The 1996 Conference was held at Norfolk State University on March 22-23, 1996.

## 10. Drs. Gilbert Castelow and Johnny Houston were Recognized and Honored for Teaching Excellence by the University of North Carolina Board of Governors

On Friday April 12, 1996, the University of North Carolina Board of Governors, the governing authority for the sixteen constituent institutions that make up the University of North Carolina System, recognized and honored one person from each of the sixteen institutions for superior teaching. The group of sixteen honorees included two professors of mathematics: Gilbert Castelow from NC A \& T State University and Johnny L. Houston of Elizabeth City State University. Each honoree received an impressive bronze medallion with his name inscribed and a stipend/prize for $\$ 7,500$.

## 11. NAM Honors Irvin E. Vance

During NAM‘s 1996 National Meeting in Orlando, FL, NAM presented Irvin E. Vance a distinguished Service Award for his leadership in the Benjamin Banneker Association and for his service as a founder and early strategist for NAM. In addition to his service with the two aforementioned organizations, he also provided valuable service to NCTM, serving on NCTM's Board of Directors.

## 12. Prof. Carolyn Mahoney was Honored at California State University at San Marcus

Carolyn R. Mahoney, California State University at San Marcus, completed a year of distinguished service as Interim Vice Chancellor of Academic Affairs as of May 31, 1996. Upon the completion of this assignment, a $\$ 10,000$ scholarship for women in mathematics was established in her honor. Dr. Mahoney spent the 1996-97 academic year at the Mathematical Sciences Research Institute (MSRI); after which she returned as a Professor of mathematics.

## 13. Raymond Johnson Completed Five Years as Chair at the Univ. of MD - College Park

On June 30, 1996, Raymond Johnson completed five years as Chair of the Department of Mathematics at the University of Maryland - College Park. During his tenure, a large number of African American graduate students successfully pursued graduate study at the Univ. of MD. During the 1996-1997 academic year, Dr. Johnson was on sabbatical leave.

## 14. NAM held first Summer Computational Science Institute at ECSU

From June 16, 1996 to July 26, 1996, NAM held its first Summer Institute in Computational Science on the campus of Elizabeth City State University in Elizabeth City, NC. The Institute enrolled sixteen junior senior mathematics students and four faculty (four research teams of four students/one faculty per team). Through short courses/seminar presentations and group research activity, the teams identified, developed and presented a research project. The Institute was funded by the National Security Agency (NSA).

## 15. IMA held Conference for Minorities in Applied Mathematics

The Institute for Mathematics and its Application (IMA) at the University of MN held a Conference: Minorities and Applied Mathematics - Connections to Industry, on October 4-6, 1996 in Minneapolis, MN. The Conference invited 20 established minority mathematical scientists, both from industry and from universities and 40 graduate students with interest in the application of mathematics. The Conference was informative, challenging, inspiring, and exciting. The organizers of the Conference were Raymond Johnson, University of MD, Fletcher Jones, IBM and James C. Turner, Jr., Florida A \& M University.

## 16. National Security Agency (NSA) held Fourth Invitational Mathematics Meeting; <br> Invited African Americans, Hispanic Americans and Native Americans

On November 17-19, 1996, the National Security Agency (NSA), an agency of DoD, held its fourth Invitational Mathematics Meeting at NSA's Headquarters in Ft. Meade, MD/Baltimore and invited approximately 100 under-represented American mathematical scientists. NSA, the largest employer of mathematical scientists in the USA, had an impressive Conference. The clear message was that NSA was hiring mathematicians at all levels and minorities were welcomed and desired. Melvin R. Currie (Chief, Mathematics Branch, INFOSEC Research Division) was Chair of the Conference Organizing Committee.
17. "Spotlight On A Mathematician" (By J. L. Houston) featured in the 1996 Newsletter:

Spring '96: Beauregard Stubblefield
Summer '96:
Etta Falconer
Fall '96:
Winter '96
Rogers J. Newman
Charles B. Bell and Theodore R. Sykes

## G. 1997 NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January 8 -12, 1997 in San Diego, CA in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. Board of Directors Meeting; 7:00 p.m., January 9
b. Presentations by Recent Doctoral Recipients; 2:15 p.m.; January 10

Moderator: Stella Ashford, Southern University
Presenters: David Farley, Vanderbilt University
c. NAM's Cox - Talbot Address and Banquet; 6:00 p.m.; January 10

Speaker: Charles B. Bell, San Diego State University
Topic: "Some of My Favorite Mathematicians"
d. The Claytor Lecture; 1:00 p.m., January 11

Speaker: Carolyn Mahoney, California State University/SanMarcos
Topic: "On Calculating The Log Concavity of Matriods"
e. NAM's Panel

Topic: " Calculus Reform - Where Are We Now"
Moderator: Jacqueline Giles, Houston Community College
Presenters:
Della Bell, Texas Southern University; Yewande Olumno-Laanier, Spelman College
Don Small, United States Military Academy; Lawrence Woodard, Grambling University
f. NAM's Business Meeting, John W. Alexander, Jr., Presiding

## 2. NAM held its Fourth Annual Regional Faculty Conference on Research and Teaching Excellence (And associated Bharucha-Reid Lecture) <br> NAM's 1997 Regional Faculty Conference on Research and Teaching Excellence was hosted by the Department of Mathematics at Tuskegee University in Tuskegee, AL on April 11-12, 1997. The Conference Coordinator was Herman Windham. The Albert Turner Bharucha-Reid Lecture was given by Teresa Edwards, Spelman College. The title of her presentation was "A Maximum Cut Heuristic for the NoSplit Demand Ring Loading Problem."

## 3. NAM's 1997 David Blackweli Lecture

The 1997 David Blackwell Lecture was given by Fern Hunt of the National Institute of Standards and Technology. The Lecture was given at MAA's Mathfest 97 ' in Atlanta, GA. The title of her presentation was "Fractal Dimensions, Ergodic Theory, and a Peano-like Curve."

## 4. NAM held Undergraduate MATHFest VII (with associated J. Ernest Wilkins Lecture)

Undergraduate MATHFest VII was hosted by the Department of Mathematics and Computer Science at Elizabeth City State University in Elizabeth City, NC on October 23-25, 1997. Johnny L. Houston was coordinator of the Conference and presented the J. Ernest Wilkins Lecture. His presentation was entitled: "Some Results and Problems in Discrete and Computational Geometry."

## 5. The Third Annual Conference of African American Researchers in the Mathematical Sciences

 (CAARMS3).CAARMS3 was held on the campus of Morgan State University in Baltimore, MD on June 18-20, 1997. Conference Coordinators were Arthur Grainger. Leon Woodson of Morgan State University and William Massey of Lucent Technologies. Clarence Stephens was the keynote speaker at the Conference banquet.

## 6. Charles Bell Received NAM's Fifth Lifetime Achievement Award

Charles Bell was the fifth recipient of NAM's Lifetime Achievement Award. The Award was presented at NAM's banquet at the National Meeting in San Diego, CA on January 12, 1997. During the banquet, Dr. Bell also delivered the Cox-Talbot Address.

## 7. Sylvia Bozeman of Spelman College was Elected Governor of the Southeastern Section of the MAA.

Sylvia Bozeman, Spelman College, was elected to serve as Governor of the Southeastern Section of the MAA. She was the first African American to serve as governor of the Southeastern Section and the only African American to serve as a Governor elected by a Section. She was the second African American to be elected as a Section Governor. Clarence Stephens was elected as a Governor for the Maryland Section of the MAA in 1962: however, because he moved to New York immediately after the election, he never actually served any part of his term as an elected Section Governor. Sylvia Bozeman's term was for the years 19982000.

## 8. The National Security Agency held its Fifth Invitational Conference.

The National Security Agency (NSA) held its Fifth Invitational Mathematics Meeting August 3-6, 1997 at Ft . George Meade, MD. The purpose of the meeting was to allow undergraduate and graduate students in mathematics to visit the agency and to learn of the many exciting careers for mathematicians offered by the agency. A particular emphasis at the meeting was placed on attracting under-represented American minority and women students to the agency.

## 9. NAM Announced the Planning of a Million Dollars Endowment Campaign.

The Board of Directors and some of the other persons who have agreed to be a part of NAM's Million Dollars Endowment Campaign Advisory Committee attended the inaugural meeting of the Committee at the Paschal Conference Center on April 13, 1997. In this meeting, ideas and strategies were designed for the Campaign; dates and length of the campaign were considered and many other issues regarding NAM and the Campaign were discussed. Future dates for this Committee to meet were also decided.

## 10. AMS Published CAARMS2 Proceedings.

Nathaniel Dean, of Lucent Industries, A T \& T Bell Labs, has edited a volume of research and expository articles written mostly by African Americans. Most of the articles are from presentations made at the second CAARMS Conference held in June 1996 at DIMACS on the campus of Rutgers University. The volume, entitled: "African Americans in Mathematics," was published by AMS.

## 11. NAM \& MAA Wrote a Book on Survey of Minority Graduate Students.

The National Association of Mathematicians (NAM) and the Mathematical Association of America (MAA), with assistance from the American Mathematics Society, completed and published a first ever "Survey of Minority Graduate Students in U. S. Mathematical Sciences Departments." The Survey was conducted in the Fall 1995 and the Spring of 1996. John W. Alexander, Jr., President of NAM and William Hawkins, Director of MAA's SUMMA were the Co-project Directors. Gloria Hewitt of the University of Montana, and Bettye Anne Case of Florida State University were survey consultants. The goal of the Survey was to gather information about the learning environments of minority graduate students in graduate mathematics programs. 657 students were identified, with 492 from doctoral granting institutions. The study was in-depth, with major findings and some major recommendations. Copies of the study are available from SUMMA or NAM.

## 12. NAM held Referendum to Change Election Procedures

NAM, by its Newsletter, had a mail ballot referendum to change the length of the term of the persons elected to its Board of Directors. The Referendum sought approval to have no election in 1997 and beginning in the Fall1998 to have election for one third of the Board members each year for a three year period; that is Board positions will come up for election according to the following schedule:

FALL 1998
Secretary/Treasurer
Region C Member
Community College Member

FALL 1999
President
Region A Member
Industry/Government Member

FALL 2000
Vice President
Region B Member
Majority Institution Member Editor

The term of each position would begin in January of the next year, following the National Meeting. The newly elected Board members would be sworn into their position during the Business Meeting of the National Meeting.
***** The Referendum Passed By More Than Three-fourth of the Members Voting. ****
13. "Spotlight On A Mathematician" (by J. L. Houston) featured the following in the 1997 Newsletters:

Spring 97' - Edward A. Bouchet
Summer $97^{\circ}$ - Sylvia Bozeman
Fall $97^{\circ}$ - Charles G. Costley
Winter 97' - Abdulalim Shabazz

## H. 1998 NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January 8 - 11, 1998 in Baltimore, MD in Conjunction with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. Board of Directors Meeting; 5:00 p.m., January 8
b. Presentations by Recent Doctoral Recipients; 2:15 p.m.; January 9

Moderator: James C. Turner, Jr., Arizona State University
Presenters:
Errol Rowe, North Carolina A \& T State University
Alfred Noel, Northeast University
Michael Keeve, Norfolk State University
Alan Togbe, University of Laval
Mark Smith, AT \& T Research Laborities
Elaine Terry, St. Joseph's University
c. NAM's Cox - Talbot Address and Banquet; 6:00 p.m.; January

Speaker: Nathaniel Pollard, Jr., Bowie State University
Topic: "Some $21^{\text {st }}$ Century Profile of a Department of Mathematics, Science and Engineering "
d. The Claytor Lecture; 1:00 p.m., January 10

Speaker: Joshua Leslie, Howard University
Topic: "Lie's Third Theorem in Infinite Dimensions"
e. NAM's Panel

Topic: "A $21^{\text {st }}$ Century Profile of a Department of Mathematics at Minority Institutions"
Moderator: Leon Woodson, Morgan State University
Presenters:
Genevieve Knight, Coppin State Univesity
Stella Ashford, Southern University (a) Baton Rouge
William Hawkins, University of the District of Columbia
Tasha Innis, University of Maryland, College Park
f. NAM's Business Meeting, John W. Alexander, Jr., Presiding
2. NAM held its fifth annual Regional Faculty Conference on Research and Teaching Excellence (with Associated Bharucha-Reid Lecture)

NAM's 1998 Regional Faculty Conference on Research and Teaching Excellence was hosted by the Department of Mathematics at LeMoyne Owen College in Memphis, TN on March 20-21, 1998. The Conference Coordinator was John Harris. The Albert Turner Bharucha-Reid Lecture was given by Dennis Davenport. The title of his presentation was "Algebra in Beta-N."

## 3. NAM's 1998 David Blackwell Lecture

The 1998 David Blackwell Lecture was given by Nathaniel Dean. The Lecture was given at MAA's Mathfest ' 98 in Toronto, CA. The title of his presentation was "Network Visualization."

## 4. NAM held Undergraduate MATHFest VIII (with associated J. Ernest Wilkins Lecture)

Undergraduate MATHFest VIII was hosted by the Department of Mathematics and Computer Science at Benedict College in Columbia, SC on October 21-23, 1998. Mohammed Nikravesh was coordinator of the Conference. The J. Ernest Wilkins Lecture was given by Louis Dale, University of AL/Birmingham; lecture title: "The K-Closure of Monic and Monic-Free Ideals in a Polynomial Semi-Ring."

## 5. The Fourth Annual Conference of African American Researchers in the Mathematical Sciences (CAARMS4). <br> CAARMS4 was held in Houston, TX on the campus of Rice University in on June 16-19, 1998. Conference Coordinators were William Massey, Richard Tapia, Pamela Williams, Nathaniel Dean, Cassandra McZeal and Donald Williams. The keynote speaker during banquet was Richard Tapia

## 6. Clarence F. Stephens Received NAM's Sixth Lifetime Achievement Award

Clarence F. Stephens was selected as the sixth recipient for NAM’s Lifetime Achievement Award. The announcement of the Award was made March 20, 1998 at NAM's Regional Faculty Conference on Research and Teaching Excellence in Memphis. TN. The techniques for teaching mathematics that were introduced at Morgan State University and continued at SUNY in Potsdam, known as the Morgan-Potsdam Model, have been described in several MAA Publications and referenced in NAM's Publications. During the last twenty years of his career, he led an effort at SUNY at Potsdam which resulted in more than $20 \%$ of the graduates of the institution earning degrees in mathematics. While at Morgan, several of his students went on to earn doctorate degrees. He is often praised as a gifted teacher, superb mentor, and an excellent motivator of scholarship. He and his wife Henriette are enjoying retirement in New York.

## 7. Nathaniel Dean Left Industry; Accepted Appointment at Rice University.

After spending several years as an industrial mathematician in New Jersey with Bellcore, AT \& T Bell Labs and Lucent Technologies, Nathaniel Dean decided to join the professorate. He joined the Department of Computational and Applied Mathematics at Rice University in Houston, TX. Dr. Dean served for a number of years on NAM's Board of Directors as the industrial/government representative.

## 8. Mathematicians of the African Diaspora

http://www.math.buffalo.edu/mad/mado.html
The Mathematicians of the African Diaspora (MAD) web pages are organized into 8 major areas: Profiles of all Black Mathematicians; Black Research Mathematicians; Outside North America; Modern Historical Significance; The Ancient in Africa; Special Articles; Sources and References. Currently, the MAD Profile page lists 152 mathematicians, 65 of which have some profile. The Modern History page includes a time-line of important dates. The Ancients in Africa page features an intense study of the mathematics of Egypt from 4000BC to 200BC. Many papyrus scrolls can be viewed. The Special Articles include notes on Lee Lorch, the Morgan-Potsdam experiment, and Benjamin Banneker. The Related Links exist for other web pages. For the MAD pages, contact Scott Williams at either BONVIBRE AOLCOM or sivvqaacsu.buffalo.edu

## 9. Special Appointment of William A. Massey to NAM's Board to Complete Dean's Term.

Earlier, at a January meeting of the NAM Board of Directors, it was approved that William A. Massey of Lucent Technologies would complete Nathaniel Dean's term after his resignation as Government/Industry member. Dr. Massey is active in many efforts and is a life member of NAM.

## 10. James Leitzel Succumbed.

James R. C. Leitzel, a life member of the National Association of Mathematicians, succumbed to cancer on February 25, 1998. He was 61 years old. The University of New Hampshire mathematics professor, who had spent many years at Ohio State University, was perhaps best known to NAM members as co-director of Project NExT. (Project NExT - New Experiences in Teaching, a program under the auspices of the MAA designed to develop young mathematicians into excellent teachers). Several NAM members are also Project NExT fellows. Jim Leitzel was instrumental in seeing that his projects were inclusive of minorities. NAM extended its sincere sympathy to his survivors and shared in their sense of great loss.

## 11. NAM-ECSU 1998 Summer Institutes in Computational Science

The NAM-ECSU 1998 Summer Student Institute in Computational Science took place May 1730, 1998 on the campus of Elizabeth City State University in Elizabeth City, North Carolina Johnny Houston was the Institute's Coordinator. The participants included eleven undergraduate students from the following HBCU's: Southern University at New Orleans, Alabama State University, Tuskegee University, Elizabeth City State University, Prairie View A\&M University, and North Carolina A\&T State University. Faculty mentors included John Alexander of Atlanta Metropolitan College, George Coleman of Elizabeth City State University, Barbara Davis of Southern University at New Orleans, and Sohindar Sachdev of Elizabeth City State University. The four research teams (each with three students and a faculty mentor) produced a research project and presented the project before the group.
The NAM-ECSU 1998 Summer Faculty Institute in Computational Science took place May 17-24, 1998 on the campus of Elizabeth City State University in Elizabeth City, North Carolina. James C. Turner of Arizona State University was the Coordinator and Instructor of the Institute. The Institute focused on the finite element method and the planning of future joint efforts and research projects. Participants included eight HBCU faculty members and three advanced graduate students. It is the intension of this group to develop research and joint venture projects in the future.

## 12. Third Edward A. Bouchet Conference was held in Botswana.

The Third Edward A. Bouchet International Conference on Physics and High Technology for Development of Africa took place August 10-14, 1998 in Gaborone, Botswana. The hosts were the Centre for Computational Matters in Physics and Related Discipline at the University of Botswana, and the Society of African Physicists and Mathematicians (SAPAM). The purpose of the Conference was to provide physicists from the African worlds an arena in which to share research results, discuss current topical issues in physics and high technology; address problems of mutual concern, and interact with international scientists. The First Edward A. Bouchet - ICTP International Conference was held at the ICTP in Trieste. Italy during June 9-11, 1988. The Sccond was held at the ICTP in Accra, Ghana, August 14-17, 1990. NAM's members James C. Turner, Jr. and Johnny L. Houston gave invited presentations at the Third Bouchet Conference.

## 13. Howard University Initiative

On August 3-4, 1998. Howard University sponsored a workshop at the Holiday Inn Central, Washington DC, entitled "Developing Strategies to Enhance Performance in Analysis and Abstract Algebra for Math Majors in HBCU's Aspiring to Graduate Studies in Mathematics." The two purposes of this workshop were (1) develop ways to create, at the undergraduate level, a "mathematics culture", i.e., a proper and mature mathematical mind-set and attitude as well as a strong knowledge of important mathematical ideas: and (2) develop syllabi in Abstract Algebra and Analvsis, i.c., a collection of topics students entering graduate school are expected to know. The project director was Clement Lutterodt, Director of Graduate Studies of Howard University. Brainstorming occurred on the morning of August 3 about ways to ensure that undergraduates were adequately prepared for graduate school, especially, to develop a "mathematics culture" among these students. During the rest of the workshop, syllabi were developed in the Analysis and Abstract Algebra areas.

## 14. "Life By The Numbers"Featured Nathaniel Dean and William Massey

A seven-part PBS series revealing the role of mathematics in sports, nature, art, exploration, chance, and life in general was first aired on PBS, April 8, 1998. The series, entitled "Life by the Numbers," was supported in part by Texas Instruments, who have developed a teaching guide and an educational highlights vidco for the scrics. To obtain these, contact Texas Instruments internet www.ti.com/calc
e-mail ti-caresoticom phone 1-800-TI-CARES

The individual programs include
Patterns of Nature
Seeing is Believing
The Numbers Game
Chances of a Lifetime
Shape of the World
A New Age
Making a Difference
Featured in "A New Age: Mathematics Tames the Vast Amount of Information Available to us Today" are NAM members Nathaniel Dean, of Rice University, and William A. Massey of Lucent Technologies. A website with additional information about the program is www.mathlife.wqed.org/enhanced/shows/1 newage/meet_the_experts.html.
15. "Spotlight On A Mathematician" (by J. L. Houston) featured the following in 1998 Newsletters:

Spring '98-Joseph A. Pierce
Summer '98- James E. Robinson
Fall '98- Georgia C. Smith
Winter • 98 - James A. Donaldson

## I. 1999 NAM'S MAJOR ACTIVITIES AND SOME NOTEWORTHY ITEMS OF INTEREST

1. NAM's National Meeting, January 13-16, 1999 in San Antonio, TX in Conjunction with with the Annual Joint Winter Mathematics Meetings of the AMS/MAA
a. Board of Directors Meeting; 5:00 p.m., January 14
b. Presentations by Recent Doctoral Recipients; 2:15 p.m.; January 15

Moderator: William Massey, Lucent Technologies
Presenters:
Pamela Williams, Sandia National Laboratories
Lemuel Riggins, National Security Agency
Sonya Stephens, Florida A \& M University
Mark Smith, AT \& T Labs Research
Mark Lewis, University of British Columbia
Monica Stephens, University of Wisconsin/Madison
Afi Harrington, National Security Agency
Rhonda Sharpe, Barnard College/Columbia University
c. NAM's Cox - Talbot Address and Banquet; 6:00 p.m.; January 15

Speaker: Johnny L. Houston
Topic: "The End of One Era, the Dawn of Another "
d. The Claytor Lecture; 1:00 p.m., January 16

Speaker: Earl Barnes, Georgia Institute of Technology
Topic: "Maximum Cliques and Minimum Colorings of Graphs"
e. NAM's Panel

Topic: "Networking and Research Dialogue via "Teleconferences/Telecommunication" Moderator: Leon Woodson, Morgan State University
Presenters: James C. Turner, Arizona St.U; Tepper Gill, Howard U. \& David Hoffman, MSRI
(Invited)
f. NAM's Business Meeting, John W. Alexander, Jr., Presiding

## 2. Johnny L. Houston received NAM's Seventh Lifetime Achievement Award

Johnny L. Houston was the seventh recipient of NAM's Lifetime Achievement Award. The Award was presented during the banquet at NAM's National Meeting in San Antonio, TX on January 15, 1999. During the banquet, Dr. Houston delivered the Cox-Talbot Address entitled: "The End of One Era, the Dawn of Another."

## 3. NAM held its sixth annual Regional Faculty Conference on Research and Teaching Excellence (with the associated Bharucha-Reid Lecture)

NAM's 1999 Regional Faculty Conference on Research and Teaching Excellence was hosted by the Department of Mathematics at Howard University on March 19-20, 1999. The Conference Coordinators were Leon Woodson NAM Board - Region B, Walter Miller, faculty and Joshua Leslie, Chair Department of Mathematics - Howard U. The Albert Turner Bharucha-Reid Lecture was given by William Massey. The title of his presentation was "Industrial Perspectives on Mathematics ."

## 4. NAM - ECSU 1999 Student Summer Computational Science Institute was held at ECSU

From May 16, 1999 to May 29, 1999 the NAM -ECSU Computational Science Institute was conducted on ECSU's campus. Johnny Houston was the Institute's Coordinator. The participants included twelve undergraduate students from the following HBCU's : Elizabeth City State University (6); Tennessee St. University (3), Hampton University (1), Norfolk St. University (1), and Spelman College (1). Faculty Mentors included John W. Alexander, Jr. of Spelman College, Michael Keeve of Norfolk State University, and Kossi Edoh of Elizabeth City State University. The three research teams (each with four students and a faculty mentor) produced a research project and presented their project before the group after more than a week of three tutorials and a seminar each day along with group and individual research activities.

## 5. The Fifth Annual Conference of African American Researchers in the Mathematical Sciences (CAARMS5).

CAARMS5 was held in Ann Arbor, MI at the University of Michigan on June 22-26, 1999. Conference Coordinators were Robert Meggison of the University of Michigan and William Massey of Lucent Technologies. J. Ernest Wilkins was the featured banquet speaker.
6. NAM's 1999 Blackwell Lecture

The 1999 NAM David Blackwell Lecture was given by Melvin Currie, National Security Agency at the MAA's Mathfest ' 99 in Providence, RI. The title of his presentation was "Wide Open Spaces."

## 7. NAM held Undergraduate MATHFest IX (with the J. Ernest Wilkins Lecture)

Undergraduate MATHFest IX was hosted by the Department of Mathematics and Texas Southern University in Houston, TX on October 21-23, 1999. Della Bell served as coordinator of the Conference. The J. Ernest Wilkins Lecture was given by Richard Tapia of Rice University; his title was "Some Applications in Computational Science."
8. "Spotlight On A Mathematician" (by J. L. Houston) featured the following in 1999 Newsletters:

Spring '99 - Reuben McDaniel
Summer "99 - Geneieve Knight
Fall '99- Gloria Hewitt and Manuel Keepler
Winter ' 99 - Richard Tapia and Floyd Williams


# NAM's Regional Conference, 1994 

Morris Brown College



NAM's Regional Conference, 1995
Texas Southern University


NAM's Regional Conference, 1996
Norfolk State University


NAM's Regional Conference, 1997
Tuskegee University


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## NAM's Regional Conference, 1999

Howard University


NAM's Undergraduate MATHFest II
Spelman College, GA (1992)


NAM's Undergraduate MATHFest III
Southern University - Baton Rouge, LA (1993)



## NAM's Undergraduate MATHFest V

Clark Atlanta University, GA (1995)


## NAM's Undergraduate MATHFest VI

Xavier University, LA (1996)


IER WELCOMESN.A.M.


# NAM's Undergraduate MATHFest VII 

Elizabeth City State University, NC (1997)




## NAM's Undergraduate MATHFest IX

Texas Southern University, TX (1999)


## NAM's Summer Institute in Computational Science



Elizabeth City State University
(1996)


Elizabeth City State University
(1998)

NAM's Summer Institute in Computational Science - 1999


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# CHAPTER V: NAM: YESTERDAY, TODAY AND TOMORROW Detailed Highlights 

## A. NAM'S BY-LAWS, 1971-72

## ARTICLE I: NAME AND PURPOSE

1. The name of this association shall be the National Association of Mathematicians.
2. The general purpose of this Organization is to identify problems relevant to the mathematics education of blacks; to seek viable solutions to these problems; to work for increased support of Traditionally Black Institutions; to promote and support the advancement of black mathematicians; increase the general public's awareness of the posture of blacks on important issues in the mathematical sciences and to solicit and to aid in the soliciting of funds for the realization of these objectives.

## ARTICLE II: MEMBERSHIP

Any concerned mathematician or mathematics educator showing the desire to aid in the realization of the purposes of this organization is eligible for membership. All applications for membership must be approved by a majority of the Executive Committee.

## ARTICLE III: OFFICERS

1. The officers of this Association shall be (a) President, (b) Vice-President, (c) second Vice-President, (d) Secretary-Treasurer, (e) Executive Secretary, (f) At-Large Institutional Representative from TBI, and (g) At-Large Non-Black Institution representative. These officers shall comprise the Executive Committee.
2. The duties of the officers shall be:
a) The president shall preside at each meeting of the Association and of the Executive Committee. He shall appoint every committee of the Association, subject to the approval of the Executive Committee. In addition he shall ensure the proper and smooth functioning of the Association.
b) The first Vice-President shall perform the duties of the President in the event the President is unable to serve and is the president-elect. He shall also serve as program chairman and is charged with the responsibility of planning the regular meetings.
c) The second Vice-President shall perform the duties of the President in the event the President and first VicePresident are unable to serve. He shall also serve as editor of all association publications.
d) The Secretary-Treasurer shall keep the minutes of the official meetings of the Association and the Executive Committee and shall be responsible for the collection of all dues and registration fee, the receipt of all other monies by the Association, the safekeeping of all monies of the Association, the maintaining of proper and accurate books of account of the Association's monies, and the paying of bills of the Association. All expenditures must be signed by the Treasurer and countersigned by the Executive Secretary.
e) The Executive Secretary shall be the administrator of the Association and see to the day-to-day functioning of the Association and all of its programs.
3. The terms of office of all officers shall be two years, and shall be staggered for continuity.
4. Each officer must be a member of the Association. Each officer enumerated in section 2 must be affiliated with a Traditionally Black Institution.
5. If a vacancy occurs on the Executive Committee, the Executive Committee shall fill the vacancy by appointment of a member of the Association to serve until the next meeting at which an election by the membership of the Association can be held.
6. The President shall appoint a nominating committee to prepare a slate of candidates for presentation to the membership.

## ARTICLE IV

1. The Association shall hold at least one regular meeting each year.
2. The Program Chairman (first Vice-President) shall have the responsibility of planning the regular meeting including making the arrangements for the time, place and other physical details and the planning of the program.
3. A special meeting may be called by the Executive Committee or upon petition by two-thirds of the membership. The arrangements for a special meeting shall be the responsibility of the Executive Committee.
4. All regular meetings shall be announced in the newsletter at least ninety days prior to the commencement of the meeting. Each member of the Association shall be notified in writing at least fourteen days in advance of any special meeting of the Association.
5. A quorum shall consist of just those members who are present at a properly called meeting.
6. All matters to be considered at special meetings shall be distributed to all members with the notification of meeting.
7. All individual members shall have voting privileges.

## ARTICLE V: DUES

1. The dues and registration fees to be assessed by the Association shall be determined by a two-thirds vote of the Executive Committee.
2. The Executive Committee shall have the power to establish institutional and other memberships and set the dues thereof.

## ARTICLE VI: COMMITTEES

1. The President shall have the power to appoint ad-hoc and standing committees as necessary.

## ARTICLE VII: AMENDMENTS

1. These By-Laws may be amended by a two-thirds of the vote cast by the members at a regular or special meeting of the section or by two-thirds of the votes returned in a mail ballot.
2. A proposed amendment shall be submitted in writing to every member of the Association at least thirty days prior to the meeting at which the voting on the amendment will take place.
3. A complete revision of the By-Laws will be subject to the same procedure as that for amending the ByLaws.

## ARTICLE VIII

1. The pro-tem officers shall remain in office until the Association has become fully established, but in any case their terms shall terminate within two years of the date of incorporation.

## B．NAM＇S ARTICLES OF INCORPORATION， 1972 <br> 


 of photograpned primted matter hereto attacined is a true and SOIrect copy of the original articies o三 incorporation，the Judge＇s orier thezeon，the filing of tio cienk，and certitiante ニ三 the Secォenary of state Eor＂NATEONAL ASSOCEAM＝ON OF MATEEMARECIANS，

ZNC．＂，as the same apoears of Eive and rovora ir this office



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                        -6-
            This corporation shali not be opernted for the primary purpose=
        of carrying on a trade or busimess for pxorit. No compensation or
        payment shall ever be paid to any merber, ofricer, direcror,
        Erustae, or any other character or officex of this organization,
        except as a reasonable allowance fox mctual expenditures or eervicea
        actually made or rendered to or fox trim corporation.
        This corporation shall have mll the powers set forth in georgia
        Code Ann. §22-2202 (Acta or Ine General Assembly or the state of
        Gonrgia of 1908, pp. 505, 736; Acts of the General Aamembly or
        the State of Georgta of 2909, pp. 252, IB3. as mended) and to
        levy, collect, and reguhata the distribution of fees and dues.
        Notwithstanding the grant of powers by the preceding and foregoing
        ciause, this corporation small not and cannot hold and exercise
        any of such powers that are operative or exfocted in such manner
        that disquailyy auch corporation as a tax exemp= organization or
        tisqualify the contribution or others as tax deductible to the
contributor au ia consistenc with ita purposes.
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    \(-8 \rightarrow\)
    The directors smail be elected by the members unless the
    members shall provide othermisa in the by-iaws. Themethoa or
eiection or of selection shall be as outilned in fhe by-iaws.
-9ー
The address of the initial registered ofrice of the corporation
is Box 48, 233 Chesthut street, $S W$, Morehousa Colleoe, AtIanta,
Georgia, and the narae of the injtial registexed agent at auch
address is Benjamin Maxtin.
-10-

The number of directors constititing the tnitial board of Dijectors shall be seven, but the size of the 3oard or Dizectors shall not be moxe than eleven individuahs. The names and addreeses of each person who shali sarve finitially ares
(a) Hernis Bnrnes, Executive Secratary

Institute for Servicea to Education
Washtngton, D. C.

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    (b) Lillian Bradley, Treasurer
        Department or Mathematics
        Icras Southern University
        llouston, Iexas;
    (c) E|wa=d Car=0I:, Second vicempresident
    The p=ess Building
    New York Universi=y
    New York, New York;
    (d) Etta Falconer, Recording Sec=etary
    Department of Mathernatics
    Norfolk State College
    Norfolk, V\pmrginia;
    (e) Benjamin Mar:in, Coordinator of Activi=ies
    Depaztment or Mathematics
    Norehouse College
    Atlanta, Georgia;
    (I) Frank James, President
    183 East Third Stzeet
    New York, New York;
    (g) Walter Ialbot, Fizst Vice-president.
    Deparment of Mathematics
    Morgar State Coliege
    Baltinora, Maryland
    -11-
    The corporation, acting through its Board of Directors or its
Temers as it may decide, may make p=ovisions in the by-laws sor
t.e zeguiation of the internal affai=s of the corporation, including,
witiout Lirnitations, provisions wi=h =espect to the zala=ive zights
or interests of the menoers as among Ehemselves or in the property
of the emporation; the manner of acquiring membership in the
corporamion, the manner of termination of membersinip in the
cozporation, the rights, upon such termination, of the corporation,
the terminated member, and the remaining members; the trans=orability
or non-transterabllity of membership; and tha digtribution of assets
on dissolution or final iiquidation.
    -12-
    The names of the ini=1al menbers are set forth in paxagraph
2O above as directors and mathematiciann, and such othor groups or
pezsons as the members may designate from tira to time shalli be
memoers.
    -13-
This corporation sla il not be subordinate or subject to the authority or head of any othar organization unles the merbers sinall decide otnerwise.
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                    TO THE SUPERIOR COURT OF SAID COUNTY
APPLICAIION FOR ARIIQLES OF INCORPORATION
    Tre petition of Bergis Barmes, Lillian gradiay, Edward Carroil,
Etta Falconex, Benjamin Martia, Frank Jones, and Walter Talbor,
hereinaxter petitioners:
    Respectiuliy Represent:
    Petitioner; desire ArEiclez of Incorporation to ismue an
EOl20ws:
    see Exhiblt "A," attached nereto and made a part hereof
    Wherefore, petirioners pray that this pett=ion for Articius o=
Incorporation be granted; that :hey be incorporated with all the
Eights powers, and privileges set forth therein, and uuch other aded
furthez powers as may be horeimafter ailowed corporationa of live
character under the lave of this State.
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J. L. Jordan
Atrorney at Law
244 Ashby Street, NW
Post OxIlce Box }9253
Atlanta, Georgia
525-8475
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ORDER

The foregoing petition for Charter having been presented to and examined by me, and it appearing that the application is legitimately within the preview and intent of the laws of Georgia, and it further appearing from the Certificate of the Secretary of State that the proposed corporate name is not the name of any other existing corporation registered in the office, of the secretary of State;

It is ordered that the foregoing application be, and that the same is hereby granted, and the applicants are hereby incorporated and granted a corporate charter under the name and style of

The National Association of Mathematicians, Incomporetert

With all the rights, powers, and privileges prayed for, and all others allowed by law.

This 3 day of $\qquad$ $197 \angle$


## PUBLISHERS AFFIDAVIT

STATE OF GEORGIA, -County of Futon
Before me, the undersigned, a Notary Public, this day personally came ...... Earl Higgins , who, being first duly sworn, according to law, says that be is an Agent of the Daily Report Company, publishers of the Fulton County Daily Report, the official newspaper in which the Sheriff's ad. rertisements in and for said County are published, and a newspaper of general circulation, with its principal place of business in said County, and that there bes been deposited with said newspaper the cos: of publishing four (4) insertions of a notice pursuant to Ga. Business Corporation Code of the granting of Articles of Incorporation



## C. NAM'S BY-LAWS, 1974

## ARTICLE I. MEMBERSHIP

1. Any mathematician, mathematics educator or institution willing to abide by the By-Laws of this Corporation and conform to the rules and regulations of the Corporation, which may from time to time be adopted and promulgated by the Board of Directors of the Corporation, shall be eligible for membership herein. Said application shall be accompanied by such documentary proof of eligibility as the Board of Directors may require.
2. All applications for membership shall be submitted to the Board of Directors and no applicant shall be admitted to membership unless the application shall have been approved by a two-thirds majority of the Board of Directors.
3. For cause, any membership may be suspended or terminated. Sufficient cause for suspension or termination shall be violation of these By-Laws or any lawful rule or practice duly adopted by this Corporation or failure to pay, within 2 months after the sum becomes due, the annual membership dues or any assessments which may be levied as provided for in these By-Laws. Suspension or termination shall be by vote or other procedure established by the Board of Directors. Upon termination of membership for any reason, the said member shall have no rights in or claim upon the assets or property of this Corporation. Membership shall be nontransferable.
4. The annual dues and registration fees required for membership in this Corporation shall be determined by recommendation of the Board of Directors and two-thirds vote of the membership. Said dues shall be payable on or before January 1 each calendar year.
5. Each member shall be entitled to one vote in the affairs of this Corporation.

## ARTICLE II. BOARD OF DIRECTORS

1. The Board of Directors of this Corporation shall consist of nationally elected officers, nationally elected members-at-large, and the Executive Secretary.
2. The Board of Directors of this Corporation shall have vested in it and shall exercise all the corporate powers of this Corporation except those which may be reserved to the membership in these By-Laws or in the Articles of Incorporation. Said Board shall consist of no more than eleven members.
3. It shall be the duty of the Board of Directors to carry on and conduct the business of the corporation, manage its property, elect its officers, delegate the election of officers to the membership, appoint such committees as it may deem necessary, and perform all other acts and things not herein reserved to the membership, necessary and proper to carry out the objectives and purposes of this Corporation.
4. The Board of Directors shall hold an annual meeting in April of each year at which meeting the affairs of this Corporation shall be reviewed or a slate of nominees for office prepared, and any other business of the Corporation transacted.
5. Special meetings of the Board may be held upon the request of the Chairman at such time and place as may be designated. Special meetings may also be held upon the request of the majority of the members of the Board.
6. Notice of the annual meetings shall be given to each Director by mailing the same to him at his post office address as shown by the records of the Corporation, at least thirty days before the day of the meeting. Notice of special meetings shall be given each Director by serving him with such notice personally or by mailing the same to him at his post office address shown on the records of the Corporation not less than fourteen days prior to the day fixed for said special meeting; provided that a meeting of the Board may be held at any time if notice of such meeting is waived in writing in advance thereof by all the Directors.
7. A majority of the Board of Directors shall constitute a quorum to transact business, and a majority of those present may transact the business of the Corporation, except as otherwise provided in these By-Laws.

## ARTICLE III. MEETINGS

1. There shall be an annual meeting of this Corporation each year for receiving reports and the transaction of other business. All annual meetings shall be announced in the Corporation's newsletter at least 90 days prior to the date of the meeting.
2. A special meeting may be called by the Board of Directors or upon petition of two-thirds of the membership. All notices of special meetings shall be mailed to each member at its post office address as shown by the records of the Corporation at least fourteen days prior to the date of the meeting.
3. A quorum shall consist of those members present at a properly called meeting.

## ARTICLE IV. OFFICERS

1. The officers of this Corporation shall be a President, Vice-President, Editor, a Secretary-Treasurer. who shall be elected by the membership and who shall hold office for two years or until their successors are elected, and an Executive Secretary who shall be appointed by the Board.
2. The President shall preside at all meetings. He/she shall sign all official documents of the Corporation when empowered to do so by the Board of Directors, and shall perform such other duties as may be specified by the Board of Directors.
3. The Vice-President shall perform all functions of the president in the absence of the president and shall perform such other duties as the Board of Directors may specify.
4. The Editor shall be responsible for all publications of the Corporation.
5. The Secretary-Treasurer shall keep the minutes of all meetings of the Board of Directors and the Corporation, and shall keep all the books and records of the Board of Directors and the Corporation. $\mathrm{He} / \mathrm{she}$ shall keep the books of accounts of the Corporation and have the custody and control of all the monies of the Corporation and shall deposit the same in such banks or bank as may be designated by the Board. He/she shall pay all claims against the Corporation when directed to do so by the Board of Directors. He/she shall make an annual report of the business and finances of the Corporation to the Board of Directors and the members of the Corporation and such other reports as the Board may from time to time request; and he/she shall perform such other duties as may be specified by the Board of Directors.
6. The administration and management of the Corporation shall be vested in the Executive Secretary who shall direct the activities of the Corporation and perform such other duties as may be defined by the Board of Directors.
7. In case any officer of the corporation shall for any reason be unable or fail to perform the duties of this office, then a successor shall be selected by the Board of Directors for the unexpired term of office.

## ARTICLE V. AMENDMENTS

1. These By-Laws may be amended, repealed, or altered, in whole or in part, by a majority vote of the members of the Corporation either at a duly organized meeting of the members of the Corporation or by the votes returned in a mail ballot.

## D. NAM'S ARTICLES OF INCORPORATION, 1976



## COUNTY OFFULTON

1. BARBARA J. PRICE, Clerk of the Superior Court of Fulton Councy, Ccorgia, do hereby certify that the within and foregoing is a true and correst copy of petition of

ZIETMPA: ASSOCIATTC: : OF MATEDATICINNS, INC.

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for Charter reszatid ariscies of encurarghtion
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and the Order of Court thereon allowing same, all of which appears of nile and record in this Orfice.


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IN rIIE SURERIOR COURT OF FULTON COU:TY
state of georgin
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The petition of NATIONAL nsSOCIATION OF MATHEVNOICEANS,
INC., shows the Court as follows:
(2)
 nssocintion of mathemnticinis, Inc., executed by Johnny L. Houston and attested to by Benjamin J. Mari£n, arc ateached hercto.

NUEREFORE, petitioner prays that the restated mritcees OF INCORPORATION OE NATIONA ASSOCIATIO: OF MATHE:MTICINNS. INC., be granted.


Suitc 2222 Harictea ra:/er
jol iAcrictea Street. H. H. Aclan=a, Georgia 30303 (404) 577-5900


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几：SこNTED
AnTICEES OF INCORPORATION C：
inntionnl nssucintion of muthenaticinis，inc．
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$$
\begin{aligned}
& \text { L. On } \quad \text { Januazy } 25 \text {. } \\
& \text { National nssuciation of ilathematicians adopted the following } \\
& \text { restated } n=t i c l e s \text { of Incorporation: }
\end{aligned}
$$

$I$.
The name of the corporation is： NATIONAL ASSOCIATION OF MMIHEUUZICINIS，I：HC．

II．
＂The corporation shall have perpetual duration．

> III.
＂He sorporation is organizcd cxclusively Eor charitable and eciwational purposes within tile meaning of Section $501(0)(3)$ of the InEernal Rovonue Gode of 1954 ，with its prinazy purposes reiating to the stimu：ニとing of a inigher degree of interest in mathomatiss on the pate of college－level students；the supyozt and development of moze cefcotiro teaching techuigucs of mathe－ inatics by toachers，particularly at prodominantly biack insti－ tutions of higher leazaing；and to the promotion and support cE the pareicipation of black ancl othcr minority mathematicians in continuine education programs and in profossional urganiza－ tions．
＂The corporation shall havo the authority to engage in any activity incidental or relatod to the attainment or Eurthezance of any of the forcgoing purposes．

I．
＂rhe aEEaies of ehe corpozation shall we manased by a board of inizectors．The method of election of directors shail Le as dotcrmined by the Dy－laws of the cozporation．

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            "No pafe of the not eaznings of thc cozporation shall inuze
        to the boncfil Of, Or be distrimutable to, its nomuers, tizujtoes,
        officcrs, or other private persons, except tha= che corporation
        shall be authozizcd and cmpoivered to pay =easonable compensation
        LOE sorvicos zonclorce and to make payments and dizumibutions in
        Eurtherance of the purposes set forth in Article III horecz.
            "No substantial part of the activitits of tho corporation
        shall bo the carzying on of pronaganda, or otherwise atteraptimg
        to influence legislation, and tie corporation shall mot parti-
        cipate in, or intcrvene in (including the pulalishing or distri-
        bution of statements) any political campaign on bellalf of any
cancidate for public officc. Notwithstancing any other provi-
sion of these AEticles, this cozioration shall not carey on any
other activities not ncrmittod to be carzied on by (a) a corpo-
=ation exempt Ezom Fodcral income tax under Section 501(c)(3)
Of tho Incornal Revenue code of iכJ4 or the cormosponding %=U-
vision of any futuro Unitcd States Internal Reverue Law or (b)
a cozporation, contzibutions to mivich arc deductiblo unuc=
Section L70(c)(2) oE the Intennal Revenue code of lo54 or ulo
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Revenue Law.
                    v=.
    "In the cvent of dissolution, the Icsidual assets oE blte
Organization will be turned ovet to one or more organizations
which themsrlves are axempt as o-yanizations described in
Sections SOL(c)(J) amel LTO(c)(2) of the Intornal Revenue covic
oE 2054 or corresponding sections of any prior or future
Intcanal icvenue Code, or to the rederal, State, or Local
Government for exclusive public purpose. Upon tho dissolution
OF thc corvoration, tho Doard of vircetores shall, after maying
Or makines provision for the gayment of all of the liabilituice
of the corporation, dispose of all of the assets of thc cor-
po=ation exclusivoly for the purpores of the corporntion in
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    such manner, or to such organization or ozganizations organized
    and operated exclusively for charitable, educational, reliqious,
    or scicntiEfe purposes as shall at the time qualify as an
    exempt ozganization or organizations undez section 501(c)(3) of
    the Internal Revenue Code of 1954 (or the cormesponding provision
Of any futuze United States Internal Revenue Law), as the Doare
of Directors shall detemine. Any of such assets not so disposed
Of shall be disposed of by the Fulton County Superior Court,
exclusively for such purposes or to such orgarization or organi-
zations, as said Court shall detemmine, which are organized and
operated exclusively for such purposes.
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VII.
"The Board of Directors of the corporation shall have the power to acmit members to the corpozation in such manner, subject to such qualification and upon such temms and conditions anc with such rights as may be provided $f=0 \mathrm{~m}$ Eime to time by the sy-iaws of the corporation."
2. Said Restated Azticles of Incorporation, excopt for those delezions permitこed by Gcozgia Code Section 22-2806(c) include anci embody amendments to each paragraph of the originai Az=icies of Incozpozation.
3. Said Restated $A$ titiles of Incorporation were authorized by the vote of at ieast two-thizes of the members prosent and voting at the annual meeting of the members held on Januayy 25, 1976.
4. Said Restated Articles of Encorporation supezente the original Articles of Jncorporation.

IN UITNESS WHERECE, the undersigned execute these Restated Articles of Incorporation.

Atたest:


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## ORDER

The Restated Articles of Incorporation of inntional association OF MATHEMATICINNS, INC., having been examined and found lawful;

IT IS HEREBY ORDEPED that the Restated Articles of Incorporation of NATIONAL ASSOCIATION OF MATHEMATICIANS, INC. be and the same are hereby granted.

state of georgin
COUNTY OF FULTON

## PUBLISHER'S AFFIDAVIT

STATE OF GEORGIA
COUNTY OF FULTON

Before me, the undersigned, a Notary Public, this day personally came_ JOHN HARrISON who, being first duly sworn, according to law, says that he is an Agent of the Daily Report Company, publishers of the Fulton County Daily Report, the offal newspaper in which the Sheriff advertisements in and for said County are published, ard a newspaper of general circulation, with its principal place of business in said County, and that there has been deposited with said newspaper the cost of publishing


NOTARYPUBLIC, RXernern
State at large

## E. NAM'S APPROVAL AS A NON-PROFIT ORGANIZATION, 501 (C)

hArrington and Rubin. P.C.<br>attorneys at law 13i0 FIRST NATIONAL BANK TOWER ATLANTA. GEORGIA 30303<br>\section*{404/658.3977}<br>June 3, 1976

MARVIN ARLINGTON
s. RICMARD RUSIN

JOSEPH M. WINTER
B. J. Martin, Dh.D. Chaiman, Mathematics Department Morenouse College Atlanta, Georgia

Dea= B. J.:

Attached hereto is your qualifying letter From the Internal Revenue Service, and I am asking you to make the same a pare oz your files.

I believe this Einaliy concludes the matter, and it has been my pleasure to be of service to you in tennis regard.

Let me know if I can be of further assistance in the future.


MS. / dc
Encl.

## 

## Interial Revenue Service

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|  | JAN 26 ： 976 |  |

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If your purposes，characiar， \(0=\) gatiod of opezation is changed， please ist us know so we can consider the effect of tine change on your exempt status．Also，you shouid iniot us of ail ciamges in your name or address．
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ミ－your gross receipts each yea－are zormaily more than 35,000
 Fron Income Tax，by the l5：h day of tine fifth fonth after the end of your annual acoountizg period．The iaw imposes a penalay of $\$ 10$ a day．up to a maximum of S5．000，for failuce to file a zoturn on time

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Sincerely yours．


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Please keep this number in your pemmant recoris, enter it on all Federal tax forms that require its use, and reeier to it in all related correspondence or documents.

If you need more iniormation, please contact your Internal Revenue offica.
Thank you for your cooperation.
Directop
Internal Revenue Service Center

## F. NAM's BY LAWS, 1979

## ARTICLE I. NAME AND PURPOSE

## Section A. Name

The name of this organization shall be The National Association of Mathematicians, Inc., to be called NAM in these By-Laws.

## Section A. Purpose

The general purpose of this organization is to identify problems relevant to the education of black students in the mathematical sciences, the continued development of practicing mathematical scientists and educators who are black, and the teaching and continued development of the mathematical sciences at predominately black institutions of higher learning; to seek viable solutions to these problems and share the same with any and all persons expressing a serious interest in helping to implement (or operationalize) these solutions; to work for increased support in the continued professional advancement of black mathematical scientists and educators; to increase the general public's awareness of the posture of black mathematical scientists and educators on issues of importance in areas of the mathematical sciences; and to solicit and aid in the soliciting of funds for the realization of the above items.

## ARTICLE II. ORGANIZATIONAL STRUCTURE

## Section A. The Number of Levels (Tiers)

The Corporation shall have five organizational levels (tiers) at which the affairs of NAM will be conducted. The organizational levels will be listed in Section $B$ in a descending order, beginning with the tier directly involving the largest number of persons.

## Section B. Name and Composition of Each Tier

1. Tier I: NAM'S GENERAL MEMBERSHIP, consisting of all the individuals that hold official membership status in NAM at the time in question.
2. Tier II: NAM'S INSTITUTIONAL REPRESENTATIVES, consisting of all those persons selectedappointed by the State and Regional Representatives and confirmed by the Board of Directors; serve as NAM Liaison persons at predominately black institutions of higher learning.
3. Tier III: NAM'S REGIONAL AND STATE REPRESENTATIVES, consisting of persons selectedappointed by NAM's Board of Directors to serve as NAM's Regional and State Liaison persons.
4. Tier IV: NAM'S BOARD OF DIRECTORS, consisting of persons elected by the general membership of NAM to officially manage the affairs of NAM.
5. Tier V: NAM'S NATIONAL OFFICE, (Office of the Executive Secretary of NAM), an office under the auspices of the Board of Directors of NAM and is operated by an Executive Secretary who is appointed by the elected Board of Directors of NAM.

## ARTICLE III. MEMBERSHIP

## Section A: Membership Determination and Membership Dues Determination

1. Any mathematical scientist, mathematics educator, student of a mathematical science or delegates of an institution of higher learning who is willing to abide by the By-Laws of the Corporation and obey and conform to the rules and regulations of the Corporation which may from time to time be adopted and promulgated by the Board of Directors of the Corporation shall be eligible for membership herein. Each application shall be accompanied by such documentary proof of eligibility as the Board of Directors may require.
2. All applications for membership shall be submitted to the Board of Directors and no applicant shall be admitted unless his application shall have been approved by a simple majority of the Board of Directors.
3. For due cause, any membership may be suspended or terminated. Sufficient cause for suspension or termination shall be violation of these By-Laws or any lawful rule or practice duly adopted by the Corporation, failure to pay membership dues, within 2 months after the sum becomes due, or failure to pay any assessments which may be levied as provided for in these By-Laws. Suspension or termination shall be by vote or other procedure established by the Board of Directors. Upon termination of membership for any reason, the said member shall have no rights or claims upon the assets or property of the Corporation. Membership shall be nontransferable.
4. The annual dues and registration fees required for membership in this Corporation shall be recommended by the Board of Directors and approved by two thirds of the membership at a properly called meeting of the general membership of the Corporation or by a two-thirds majority vote in the affirmative by the return of mailed ballots.

## Section B: Types of Membership

1. The National Association of Mathematicians, Inc., offers five distinct types of memberships:

Regular Individual Membership
Associate Individual Membership (retirees, unemployed persons, "friends,")
Lifetime Individual Membership
Student Membership
Institutional Membership
2. Regular Individual Membership in NAM entitles the individual to:
a. A membership card, certifying membership in NAM for the fiscal year for which the dues have been paid;
b. Voting privileges and other official participation in the business affairs of NAM at the Institutional, State, Regional, and National levels;
c. Eligibility to become a candidate for an appointed or elected position of NAM at the Institutional, State, Regional or National level;
d. Eligibility to officially participate on any program of NAM that is presented at the Institutional, State, Regional or National level;
e. A subscription to NAM's Newsletter free of charge during the fiscal year of membership;
f. Eligibility to submit materials to NAM's Newsletter (other than advertisement) to be published free of charge;
g. Eligibility to receive all materials and services that are provided free of charge to the members of NAM;
h. Eligibility to receive special member's rates for materials and services provided by NAM for a fee.
3. Associate Individual Membership in NAM entitles the individual member to:
a. A membership card, certifying membership in NAM for the fiscal year for which the dues have been paid;
b. Voting privileges and other official participation in the business affairs of NAM at the Institutional, State, Regional, and National levels;
c. Eligibility to officially participate on any program of NAM that is presented at the Institutional, State, Regional or National level;
d. A subscription to NAM's Newsletter free of charge during the fiscal year of membership;
e. Eligibility to submit materials to NAM's Newsletter (other than advertisement) to be published free of charge;
f. All materials and services that are provided free of charge to the members of NAM;
g. Special member's rates for materials and services provided by NAM for a fee.
4. Lifetime Individual Membership in NAM entitles the individual member to all the rights and privileges provided for regular individual membership for the duration of his/her natural life without requiring any additional financial commitment from the individual member.
5. Student Membership in NAM entitles the individual student member to all the rights and privileges provided for persons holding special individual membership in NAM.
6. Institutional Membership in NAM entitles the institution to:
a. Voting privileges, and other official participation by its institutional delegate in the business affairs of NAM at the Institutional, State, Regional, and National levels;
b. A subscription to NAM's Newsletter free of charge during the fiscal year of membership;
c. Eligibility to submit materials to NAM's Newsletter (other than advertisement) to be published free of charge;
d. All materials and services, via its Institutional delegate, that are provided free of charge to the members of NAM;
e. One Individual Membership for a faculty member at the institution for the concurrent fiscal year of the Institutional Membership;
f. One student membership to be specified by the Institutional delegate for the concurrent fiscal year of the Institutional Membership;
g. A one-fourth (1/4) page of advertisement in a NAM's Newsletter of the Institution's choice during the fiscal year of Membership;
h. All additional advertisement in NAM's Newsletter (after the $1 / 4$ page for free) at one-half the rate of regular advertisement prices;
i. Special member's rates for materials and services provided by NAM for a fee.

## Section C: Fiscal Year

1. With the exception of Lifetime Individual Memberships, dues are to be paid annually according to NAM's fiscal year.
2. NAM's fiscal year is January 1 to December 31 of each calendar year.

## ARTICLE IV. BOARD OF DIRECTORS AND OFFICERS

## Section A: The Composition, Powers and Responsibilities of the Board of Directors

1. The Board of Directors of the Corporation shall consist of nationally elected officers, nationally elected members-at-large, and an Executive Secretary.
2. The Board of Directors of the Corporation shall have vested in it and shall exercise all the corporate powers of this Corporation except those which may be reserved to other levels of the organization in these By-Laws or in the Articles of Incorporation. The said Board shall consist of no more than eleven members.
3. It shall be the duty of the Board of Directors to conduct the business of the Corporation, manage its property, supervise the election of Board members by the membership, appoint such positions and committees as it may deem necessary, publish a newsletter periodically, perform all other acts and duties not herein reserved to the membership or other levels of the organization, and establish whatever procedures and processes deemed necessary and proper to carry out the purposes, objectives and the affairs of the Corporation.
4. The Board of Directors shall hold at least two meetings annually (Spring and Winter) of each year, at which meetings the affairs of the Corporation shall be attended, a slate of nominees for Board members be prepared (when appropriate), and transact any other business of the Corporation it deems necessary and proper.
5. Special meetings of the Board may be held upon request of the President at such time and place as may be designated. Special meetings may also be held upon the request of a majority of the members of the Board.
6. Notice of the annual meetings shall be given to each Director personally, via telephone or by mailing the same to him/her at his/her post office address as shown by the records of the Corporation, at least thirty days before the day of the meeting. Notice of special meetings shall be given each Director by serving him/her with such notice personally, via telephone or by mailing the same to him/her at his/her post office address as shown on the records of the corporation not less than fourteen days prior to the day fixed for said special meeting; a special meeting of the Board may be held at any time if a request of such meeting is agreed in advance there of by all of the Directors.
7. A majority of the Board of Directors shall constitute a quorum to transact business, and a majority of those present may transact the business of the Corporation, except as otherwise stated in these By-Laws.

## Section B: Officers and their Responsibilities

1. The officers of the Board of Directors and of the Corporation shall be a President, Vice-President, a SecretaryTreasurer, and an Editor, who shall be elected by the membership and who shall hold office until their successors are elected or selected and installed, and an Executive Secretary who shall be appointed by the Board of Directors.
2. The President or his designee shall preside at all meetings of the Board and/or the Corporation. The President shall be the official spokesperson of the Corporation and shall perform such other duties as may be specified in these By-Laws by the Board of Directors, or that he deems necessary and proper.
3. The Vice-President shall perform all functions of the President in the absence of the President and shall perform such other duties as the Board of Directors may specify.
4. The Editor shall be responsible for the production of the Corporation's Newsletter and shall perform such other duties as the Board of Directors may specify.
5. The Secretary-Treasurer shall keep the minutes of all meetings of the Board of Directors and the Corporation, and shall keep all of the books and records of the Board of Directors and the Corporation. He/she shall keep the books of accounts of the Corporation and shall have the primary custody and control of all the monies of the Corporation and shall deposit the same in such banks or other financial institutions as may be designated by the Board. He/she shall pay all legal claims against the Corporation when directed to do so by the Board of Directors. $\mathrm{He} /$ she shall make an annual report of the business and finances of the Corporation to the Board of Directors and the members of the Corporation and such reports as the Board may from time to time request; and he/she shall perform such other duties as may be specified by the Board of Directors.
6. The administration and perpetual management of the Corporation shall be vested in an Executive Secretary. $\mathrm{He} /$ she shall direct the activities of the Corporation and perform such other duties as may be defined by the Board of Directors.
7. In case any member of the Board of Directors of the Corporation shall for any reason be unable or shall fail to perform the duties of his/hers office the other members of the Board of Directors shall select or elect a successor for his/her remaining term of office, and then report their actions and rational to the members of the Corporation.

## Section C: Required Qualifications of Persons Desiring to be a Candidate for a Position on the Board of Directors and the Corporation.

1. Required Qualifications for Candidates for a position as an Officer of the Board of Directors and the Corporation.
a. The person must be (financially) a current member of NAM in good standing.
b. The person must have held membership in NAM in good standing at least two years prior to the current fiscal year.
c. The person must be currently employed in a Mathematical Science Department at a predominately black institution of higher learning;
d. The person must have had previous employment at a predominately black institution of higher learning at least three of the last five years prior to the current year;
e. The person must be selected as a nominee by the Legislation Nomination Committee (of the Board) as a candidate for the position, be petitioned (by signature) to be put on the ballot by at least (5) percent of the financially current membership, or be selected for a position on the ballot by nomination from the floor with a simple majority vote of approval of the nomination by the membership at a regular or called meeting of the membership.
2. Required Qualifications for an At-Large Member position on the Board of Directors.
a. The person must be (financially) a current member of NAM in good standing;
b. The person must have held membership in NAM in good standing at least two years prior to the current fiscal year.
c. The person must be selected as a nominee by the Legislation and Nomination Committee (of the Board) as a candidate for the position, be petitioned (by signature) to be put on the ballot by at least five (5) percent of the financially current membership, or be selected for a position on the ballot by nomination from the floor with a simple majority vote of approval of the nomination by the membership at a regular or called meeting of the nembership.

## Section D: Composition of the Board of Directors, Term of Office, Elections

1. The Board of Directors shall consist of the three officers of the Board and of the Corporation: a president, a vice-president, and a secretary-treasurer, an editor; three members at large (Member A, Member B and Member C) and the Executive Secretary.
2. All members of the Board shall be elected to a term of office for a period of two years and elections shall be staggered for continuity. Elections shall occur in the fall of each year and the persons elected shall be duly installed at the first Annual NAM meeting following the election.
3. The Executive Secretary shall be selected to serve office for a period of three years and shall begin the term of office in January. His/her selection must be the unanimous choice of the existing Board of Directors.
4. The election of members of the Board of Directors shall be by official ballots and shall be supervised by the Board of Director's Committee on Legislation and Nomination. All current members in good standing in NAM shall be provided a ballot and given reasonable time to return it.

## Section E: The Standing Committees of NAM's Board of Directors

1. Listed below are the standing committees of NAM'S Board of Directors with the chairperson and vicechairperson as designated.

## Standing Committees

A. Annual Program and Activity
B. Membership-Budget-Fund Raising
C. Publications and Publicity
D. Legislation and Nomination
E. Resource and Special Programs

## Chairperson

Vice-President Member B
Secretary-Treasurer Member A
Editor Member C
Member A Vice-President
Member C Member B

## Vice-Chairperson

The Board of Directors may designate other chairpersons and vice chairpersons if they desire.
2. All standing committees are to have a maximum membership of eleven persons unless stated otherwise or by special approval of the Board to permit the contrary. All standing committees are directly under the jurisdiction of the Board of Directors and all chairpersons and vice-chairpersons of these committees must be members of the Board. Other persons are to be selected by the committee chairperson and/or by the Board of Directors.
3. Duties of Standing Committees
a. Annual Program and Activity Committee - This committee has the responsibility of planning, organizing and implementing all the official programs of NAM at the National, Regional and State levels, annually, and all the official activities of NAM at these levels as well on the campuses of the various predominately black institutions. This Committee, when possible, is requested to standardize its annual programs in terms of format and procedure, with special attention to be given to dates and places by deciding on these as early as possible and publicizing them in the Newsletter. This Committee shall be larger than eleven person. All Regional, State and Institutional members are on this Committee.
b. Membership-Budget-Fund Raising Committee - This Committee has the triple responsibilities of being responsible for membership in NAM, soliciting and accounting for all funds received by NAM and making decisions with regards to all expenditures from NAM's treasury as well as keeping an accurate account of the same. More specifically, this Committee is to develop proper forms for membership applications, for acknowledging the receiving of money and applications (membership cards should be a part of this), for informing and reminding persons that their dues have not been received for billing persons that owe NAM, and for properly acknowledging monies received by NAM. Rules and procedures should be developed as to what kinds of goods and services needed by NAM that NAM cannot pay to obtain. The major ongoing activities of this committee will be that of developing and implementing fund raising plans and that of keeping accurate membership records which also reflect current addresses and current financial status of member as well as accurate accounting records of the Board of Directors and the Corporation.
c. Publication and Publicity Committee - This Committee has the responsibility of producing a newsletter, establishing all the rules and regulations with regards to the production of this Newsletter, projecting a minimal budget for the operation of this Newsletter and for seeing that the Newsletter is properly distributed to all members and any other persons approved by the Board. By the way of Newsletter all the activities of NAM and all information deemed relevant to NAM is to be publicized. This Committee is to constantly implement plans and strategies for soliciting and obtaining materials to be printed in the Newsletter. The responsibility of investigating all questions with regards to official publications on behalf of NAM as well as develop all policies concerning official publications by NAM and to make recommendations about publications to the Board of Directors for their actions.
d. Legislation and Nomination Committee - This Committee has the responsibility of recommending and formulating in words all the By-Laws of NAM; for conducting the affairs of NAM, developing rules and procedures (not otherwise designated) for soliciting nominations for a slate of Board members to be elected; establishing election dates and procedures, developing, distributing and tallying all ballots; and submitting all nomination slates and all results of an election to the Board prior to announcing these otherwise, and submitting slates of nominees to the Board of Directors for acceptance of regional and state representatives.
3. The President and Executive Secretary are ex-official members of all standing committees.
4. All official activities of the Board, not coming under the responsibility of the above standing committees will be assigned to a newly established committee or task force, or it will become the responsibility of the Executive Secretary.

ARTICLE V. STATE/AREA REPRESENTATIVES

## Section A: Territorial Determination and Selection Process

1. Any State of the United States having three or more predominately black institutions of higher learning qualifies as a candidate for NAM's Board of Directors to select-appoint a State Representative to serve as a liaison person for the promotion and facilitation of NAM's activities and affairs in that State.
2. Any Region (consisting of two or more states in the United States) having three or more predominately black institutions of higher learning or having a reasonably large number of black students studying mathematical sciences at the post high school level and/or having a reasonably large number of black mathematical scientists and educators living in the area qualifies as a candidate for NAM's Board of Directors to selectappoint a Regional Representative to serve as a liaison person for the promotion and facilitation of NAM's activities and affairs in that Region.
3. The District of Columbia qualifies by its uniqueness for the appointment of a NAM Regional Representative to serve as a liaison person for the promotion and facilitation of NAM's activities and affairs in the District of Columbia.
4. Each Regional or State Representative shall be selected-appointed for a period of two years.
5. Persons selected-appointed to a position of the Regional or State Representatives by the Board of Directors may be chosen by whatever method or procedure the Board of Directors may deem proper and effective for a given state or region.

## Section B: Affiliation with the Board of Directors

Each Regional or State Representative is an official member of the standing committee on Annual Program and Activities of the NAM Board of Directors.

## Section C: Required Qualifications for a Regional or State Representative

1. Each Regional or State Representative must be a regular member of NAM in good standing at the time of appointment.
2. Each Regional or State Representative must have been a member of NAM for at least two years prior to their appointment.
3. Each Regional or State Representative must have resided and have been employed at least two immediate consecutive years in the region or state prior to an appointment as a Representative in that region or state.
4. Each State Representative must be employed at a predominately black institution of higher learning at the time of appointment.

## Section D: Responsibilities and Duties of Regional and State Representatives

1. At the beginning of each academic year, each Regional or State Representative is required to select or appoint a person to be NAM's Institutional Representative at each of the predominately black institutions of higher learning in his region or state.
2. At the beginning of each academic year, each Regional or State Representative is required to attempt to identify all black mathematical scientists in non-predominately black institutions, government or industry in his region and all black graduate students studying a mathematical science at an institution located in his region; send their names and address to the Executive Secretary of NAM and encourage these persons to become an active member of NAM.
3. Each Regional or State Representative of NAM is required to plan and conduct (with assistance from Institutional Representatives in his/her region or state) at least one NAM meeting, annually, in his region. Announcements prior to the meeting and a detailed written report of the meeting is to be sent to the Executive Secretary of NAM and to NAM's Newsletter.
4. Each Regional or State Representative is an official member of NAM's Annual Program and Activity Committee. Each year in January. each Representative is to file an annual report with the Annual Program and Activity Commince Chairperson and with the Executive Secretary of NAM. This report should be a summary of the occurrencc of NAM's activities in his/her Region or State over the past year, projections for the next year and suggestions of activities at the National level for the next year.
5. Each Regional or State Representatise is required to submit (and encourage others to submit) information of interest to NAM's Newsiotter and other publications, and to NAM's data banks.

## ARTICLE VI. NAM'S INSTITUTIONAL REPRESENTATIVES

## Section A: Institutions where Representatives are to be Selected-Appointed

Each predominately black institution of higher learning in a state or region that has a NAM State or Regional Representative shall have an Institutional Representative to serve as a liaison for the promotion and facilitation of NAM's activities at the institution of higher learning where he/she has been appointed.

## Section B: Term of Appointment and Selection Process

1. Each Institutional Representative shall be selected appointed for a period of two years.
2. Regional and State Representatives are to select-appoint Institutional Representative by whatever method or procedure the Regional or State Representative deems proper and effective for a given institution.
3. Each Institutional Representative appointment must be confirmed by the Board of Directors.

Section C: Required Quaiffeations of Representatives

1. Each Institutional Representative must be a NAM member in good standing at the time of appointment.
2. Each Institutional Representative shaii be a full time employee in an area of the mathematical sciences (at the time of appointment) at the institution where he/she is appointed.

Section D: Affiliation with NA Pa Brard of pircetors
Each Institutional Representative is an official member of the Annual Program and Activity Committee of the Board of Directors.

## Section E: Responsibilities and puthes of Instoutional Representatives

1. Serve as NAM's Liaison person at the institutions of his/her appointment:
2. Solicit membership and involvement in NAM from colleagues of their institutions:
3. Organize and preside over at least one NAM awareness meeting at their host institution annually;
4. Serve on national. regional and state committees of NAM that are compatible to interest;
5. Submit information of interest to NAM's Newsletter and other NAM publication, and to NAM's data banks

## ARTICLE VII. NAM's NATIONAL OFFICE <br> (Office of the Executive Secretary)

## Section A: Purpose and Primary Function

1. NAM's Board of Directors shall establish and maintain a National Office, to be operated by the Executive Secretary and a small support staff.
2. The Office's telephone and post office address is to serve as the official national headquarters of NAM.
3. The Office is to be the focal point and physical location of the major perfunctory and perpetual activities of NAM that have not been delegated otherwise.
4. The Office shall serve as the focal point of all major communications and distributions that are received and transmitted by NAM.

## Section B: Authority

The perpetual operation and day-to-day decision-making in the office shall be part of the authority vested in the Executive Secretary.

## Section A: Membership

1. There shall be an Annual Meeting for the membership of the Corporation each year for receiving reports, transacting the business affairs that are germane to the membership. and for presenting programs and activities that are deemed proper and worthwhile. All Annual Meetings shall be announced to the membership via Newsletter at least ninety (90) days prior to the date of the meeting.
2. A special meeting may be called by the Board of Directors or upon the petition of two-thirds of the membership. All notices of a special meeting shall be sent by mail to each member at his/her post office address as shown by the records of the Corporation (or otherwise delivered) at least fourteen days prior to the date of the meeting.
3. A Quorum shall consist of those members present at a properly called meeting.

## Section B: Representatives

1. There shall be an annual meeting of the Annual Program and Activity Committees of the Board of Directors at the time and place where the annual meeting occurs. All Regional, State and Institutional Representatives are members of that committee and are required to attend that meeting when feasible.

## Section C: Board of Directors

See Article IV for responsibilities of meetings of the Board of Directors.

## ARTICLE IX. PERPETUAL ACTIVITIES OF THE CORPORATION

## Section A: Publications

1. The Corporation shall publish a Newsletter at least quarterly, reporting items of information for the membership that will aid NAM in the accomplishing of its objectives.
2. The Corporation shall develop and maintain the publication of a Mathematical Sciences Journal; at least one issue a year shall be published. The journal shall print research articles, articles in mathematics education, and other appropriate items of interest to the Mathematical Sciences Community.
3. NAM shall encourage and engage in the publications of books and monograms that are relevant to blacks and mathematics.

## Section B: Data Banks-Directories

1. The Corporation shall develop and maintain a current directory (data bank) of black mathematical scientists and educators in the United States, especially of those who have earned a doctorate degree.
2. The Corporation shall develop and maintain a current directory (data bank) of all black graduate students studying for a doctorate degree in one of the mathematical sciences.
3. The Corporation shall develop and maintain a current directory (data bank) of all faculty in the mathematical sciences at predominately black institutions of higher learning.
4. The Corporation shall develop and maintain a current directory (data bank) of all mathematical sciences programs offered in predominately black institutions of higher learning.
5. The Corporation shall develop and maintain a current directory (data bank) of the undergraduate enrollments in the degree programs in the mathematical sciences in the predominately black institutions of higher learning.

## Section C: Reports

The Corporation shall research, compile and disseminate reports about various issues of the mathematical sciences that are deemed useful in achieving the objectives of NAM.

## Section D: Conference-Workshop

The Corporation shall convene and host conferences and workshops that are deemed appropriate for helping to achieve some aspects of the purposes and objectives of NAM.

## Section E: Service Bureaus

1. NAM shall establish and maintain a current speaker bureau services to be available for the total mathematics community but will give preference to serving predominately black institutions.
2. NAM shall establish and maintain a current consultant bureau service to be available to the total mathematics community but will give preference to serving predominately black institutions.

## Section F: Undergraduate Student Incentives

NAM will annually engage in some appropriate activities at some organizational level of NAM to encourage undergraduate students to pursue careers in the mathematical sciences.

## G. NAM's BY LAWS, 1994 with Amendments 1997-99 Incorporated

## ARTICLE I. NAME AND PURPOSE

## Section 1. Name

The name of this organization shall be The National Association of Mathematicians, Inc., to be called NAM in these By-Laws.

## Section 2. Mission, Purposes and Goals

"The National Association of Mathematicians, Inc. (NAM) is a non-profit professional organization in the mathematical sciences with membership open to all persons interested in the mission and purposes of NAM which are:

## Promoting Excellence in the Mathematical Sciences and <br> Promoting the Mathematical Development of Under-represented American Minorities

## Specifically, the major goals of NAM are:

- To engage in activities, projects, programs, conferences, workshops, seminars, etc. that are designed to inspire, motivate, promote, and assist all persons of all ages to seek, embark or maintain an active interest/career affinity in some area (s) of the mathematical sciences.
- To identify and seek viable solutions to problems relevant to providing a quality education for all students (at all levels) in the mathematical sciences.
- To promote and assist in the continued professional development of practicing mathematical scientists and educators, especially under-represented American minorities;
- To support the continued development of excellence in teaching and curriculum enhancement in the mathematical sciences, especially at $\mathrm{HBCU} / \mathrm{MI}$;
- To advocate, promote and support research in the mathematical sciences, especially by underrepresented American minorities;
- To increase the mathematical sciences community and general public's awareness of issues of importance in areas of the mathematical sciences, especially those that are of great interest to underrepresented American minorities;
- To annually produce various publications about the affairs of NAM and about the status of underrepresented American minorities in the mathematical sciences;
- To develop and maintain databases/directories regarding baseline data on mathematical professionals and students who are under-represented American minorities as well as provide interventions and services that might significantly improve the mathematical development of the latter group; and
- To solicit and aid in the soliciting of funds for the realization of the aforementioned goals."


## Section 3. Incorporation

The National Association of Mathematicians, Inc. is an incorporated body, having duly satisfied the laws and status in Fulton County, Georgia for the purpose of conducting charitable and educational endeavors for the advancement of mathematical programs

## ARTICLE II. ORGANIZATIONAL STRUCTURE

## Section 1. The Number of Levels (Tiers)

The Corporation shall have six organizational levels (Tiers) at which the affairs of NAM will be conducted. The organizational levels will be listed in Section 2, beginning with the Tier directly involving the largest number of persons.

## Section 2. Name and Composition of Each Tier

## A. Tier I. - GENERAL MEMBERSHIP

The general membership shall consist of all the individuals who have met active membership requirement for a given period of time.

## B. Tier II. - INSTITUTIONAL REPRESENTATIVES

Institutional representatives shall consist of all those persons selected/appointed by State and Regional Representatives and confirmed by the Board of Directors to serve as NAM's liaison persons at Historically Black Colleges and Universities and Minority Institutions of higher learning (HBCU/MI).

## C. Tier III. - STATE/AREA REPRESENTATIVES

State/area representatives shall consist of all persons selected/appointed by NAM's Board of Directors to serve as NAM's State/Area liaison persons.

## D. Tier IV. - REGIONAL AND SPECIAL INTEREST REPRESENTATIVES

The regional and special interest representatives shall consist of persons elected by the general membership to represent designated geographical regions and designated special interest groups. Each person duly elected is to serve as NAM's liaison person as well as NAM's Coordinator of Activities for that region/special interest group.

## E. Tier V. - BOARD OF DIRECTORS

The Board of Directors shall consist of persons elected by the general membership of NAM to officially manage the affairs of NAM, including NAM's Regional and Special Interest Representatives.

## F. Tier VI. - THE NATIONAL OFFICE (Office of NAM's Executive Secretary)

The National Office of NAM is under the auspices of the Board of Directors of NAM and is operated by an Executive Secretary who is appointed by the Board of Directors for a period of five (5) years. The appointment of the first Executive Secretary (Johnny L. Houston, Ph. D.) was in April 1975 and with successive appointments each calendar year that was divisible by five, during the spring Board Meeting of that year. An Executive Secretary may be reappointed as often as the appointment is mutually agreeable between the entire Board of Directors of NAM and the appointee.

## ARTICLE III. MEMBERSHIP

## Section 1. Membership Determination and Membership Dues Determination

A. Any mathematical professional, student or interested person who is willing to abide by the By-Laws of NAM (as a Corporation) and obey and conform to the rules and regulations of the Corporation shall be eligible for membership.
B. All applications for membership shall be submitted to the Board of Directors and no applicant shail be admitted to membership without this application having been officially approved by a simple majority vote of the Board of Directors. The decision to initially approve a membership application may be delegated to the National Office, with final approval subject to action by the Board of Directors.
C. For due cause, any membership may be suspended or terminated. Sufficient cause for suspension or termination shall be violation of these By-Laws or any lawful rule or practice duly adopted by the Corporation, failure to pay membership dues, within two months after the renewal amount becomes due, or failure to pay assessment which may be levied as provided for in these By-Laws. Suspension or termination shall be by vote or other procedure established by the Board of Directors. Upon termination of membership for any reason, the said member shall have no rights or claim upon the assets or property of the Corporation or to legally participate in the affairs/activities of NAM. Membership shall be non-transferable.
D. Membership dues and application/renewal of application fees required for membership in this Corporation may be determined by approval of a three-fourths (3/4) majority vote of the Board of Directors.

## Section 2. Types of Membership

A. The National Association of Mathematicians, Inc., offers nine (9) distinct types of memberships:
(1) Regular Individual Membership
(2) Sustaining Individual Membership
(3) Contributing Individual Membership
(4) Life Individual Membership
(5) Student Membership
(6) Institutional Membership
(7) Honorary Mcmbership
(8) Corporate Membership [added by Amendment in 1999]
(9) Corporate Life Membership [added by Amendment in 1999]

## B. Regular Individual Membership

Entitles the individual to:
(1) A membership card, certifying membership in NAM for a fiscal year for which the dues have been paid:
(2) Voting privileges and other official participation in the business affairs of NAM at the Institutional, State, Regional, and National levels;
(3) Eligibility to become a candidate for an appointed or elected position of NAM at the Institutional, State, Regional, and National levels;
(4) Eligibility to officially participate in activities of NAM at the Institutional, State, Regional, and National levels;
(5) A subscription to NAM's Newsletter free of charge during the fiscal year of membership;
(6) Eligibility to submit materials to NAM's Newsletter (other than advertisement) to be published free of charge;
(7) Eligibility to receive all materials and services that are provided free of charge to the members of NAM;
(8) Eligibility to receive special member's rates for materials and services provided by NAM for a fee.

## C. Sustaining Individual Membership

Entitles the individual member to the same privileges as that of a regular individual membership, plus the recognition for having made a greater financial contribution to NAM than the persons holding Regular Individual Membership.

## D. Contributing Individual Membership

Entitles the individual member to the same privileges as that of a regular individual membership, plus the recognition for having made a greater financial contribution to NAM that the persons holding Regular Individual Membership or Sustaining Individual Membership.
E. Life Individual Membership

Entitles the individual member to all rights and privileges for Regular Individual Membership for the duration of his/her natural life without requiring any additional financial commitment from the individual member.

## F. Student Membership

Entitles the individual student member to all the rights and privileges of persons holding Regular Individual Membership in NAM, with the exception of being eligible for election to the Board of Directors.

## G. Institutional Membership

Entitles the institution to:
(1) Voting privileges, and other official participation by its institutional delcgates in the business affairs of NAM at the Institutional, State, Regional, and National levels;
(2) A subscription to NAM's Newsletter free of charge during the fiscal year of membership;
(3) Eligibility to submit materials to NAM's Newsletter (other than advertisement) to be published free of charge;
(4) All materials and services that are provided free of charge to the members of NAM will be provided to the Institutions, via its Institutional delegate;
(5) One Individual Membership for a faculty member at the institution for the concurrent fiscal year of the Institutional Membership;
(6) One student membership to be specified by the Institutional delegate for the concurrent fiscal year of the Institutional Membership;
(7) A one-time advertisement in a NAM Newsletter ( $1 / 4$ or $1 / 2$ page) at the rate of $1 / 2$ the regular price during the fiscal year of membership;
(8) All additional advertisements in NAM's Newsletter (after first $1 / 2$ price) is at the rate of regular advertisement prices;
(9) Special member's rates for materials and services provided by NAM for a fee.

## H. Honorary Membership

Honorary membership shall consist of all the privileges of the categories so named in the Honorary Membership. Honorary Membership may be awarded by the Board of Directors after approval by a three-fourths majority vote by the Board of Directors.

1. Corporate Membership [added by Amendment in 1999]

Corporate membership shall consist all of the privileges similar to that of Institutional Membership as they are relevant for the given Corporation. The Board may award special privileges for this membership and grant special recognitions that are mutually agrecable between NAM's Board of Directors and the Corporation. Corporate Membership may be awarded by the Board of Directors after approval by a three-fourths majority vote by the Board of Directors. This membership is for a period of one calendar ycar.
J. Corporate Life Membership [added by Amendment in 1999]

Corporate Life Membership shall consist all of the privileges similar to that of Institutional Membership as they are relevant for the given Corporation. The Board may award special privileges for this membership and grant special recognitions that are mutually agreeable between NAM's Board of Directors and the Corporation. Corporate Life Membership may be awarded by the Board of Directors after approval by a three-fourths majority vote by the Board of Directors. This membership is perpetual and the Corporation will not be required to pay additional membership fees in the future.

## Section 3. Fiscal Year

A. With the exception of Life and Honorary Memberships, dues are to be paid annually according to NAM's fiscal year.
B. NAM's fiscal year is January 1 to December 31 of each calendar year.

## ARTICLE IV. BOARD OF DIRECTORS AND OFFICERS

## Section 1. The Composition, Powers and Responsibilities of the Board of Directors

A. The Board of Directors of the Corporation shall consist of nationally elected officers, an editor, nationally clected members-at-large, and an appointed-selected Executive Secretary.
B. The Board of Directors of the Corporation shall have vested in it and shall exercise all the corporate powers of this Corporation except those which may be reserved to other levels of the organization in these By-Laws or in the Articles of Incorporation. The said Board shall consist of a maximum of eleven voting members.
C. It shall be the duty of the Board of Directors to conduct the business of the Corporation, manage its resources, supervise the election of Board members by the membership, appoint such positions and committees as it may deem necessary, publish a newsletter quarterly, perform all other acts and duties not herein reserved to the membership or other levels of the organization, and establish whatever procedures and processes deemed necessary and proper to carry out the mission, purposes, and goals as well as other affairs of the Corporation.
D. It shall be the duty of the Board of Directors to determine and regulate all fees for services produced by NAM; specifically, advertisement fees for the Newsletter, sales fees for documents produced, fees for services provided, membership dues, etc.
E. The Board of Directors shall hold at least two meetings annually (Spring and Winter) of cach year, at which meetings the affairs of the Corporation shall be attended, a slate of nominees for Board members be prepared (when appropriate), and transact any other business of the Corporation it deems necessary and proper.
F. Special meetings of the Board may be held upon request of the President at such time and place as he/she may designate. Special meetings may also be held upon the request of a two-thirds majority of the members of the Board.
G. Notice of the annual meetings shall be given to each Director personally, via telephone or by mailing the same to him/her at the post office address as shown by the records of the Corporation, at least thirty days before the day of the meeting. Notice of special meetings shall be given each director by serving him/her with such notice personally telephone or by mailing the same to the post office address as shown on the records of the corporation not less than fourteen days prior to the day fixed for said special meeting; a special meeting of the Board may be held at any time if a request of such meeting is agreed in advance thereof by two-thirds (2/3) of the Directors.
H. A majority of the Board of Directors shall constitute a quorum to transact business.

## Section 2. Officers and their Responsibilities

A. The officers of the Board of Directors and of the Corporation shall be a President, Vice-President, and a Secretary-Treasurer, who shall be elected by the membership and who shall hold office until their successors are elected or selected and installed, and an Executive Secretary who shall be appointed by the Board of Directors.
B. These four officers shall comprise the Executive Committec of the Board of Directors/Corporation.
C. The Executive Committee has the authority to officially act on behalf of the Board of Directors/Corporation in case of emergency and in cases where it is not feasible to convene or poll the entire Board. A three-fourths (3/4) majority of the Board has the authority to overturn nonemergency decisions of the Exccutive Committees. The Executive Committee of the Board of Directors is required to provide a written report, at each meeting of the Board, of all major or policy decisions made by this Committee on behalf of the entire Board/Corporation since the Board's last meeting.
D. The President or designce shall perform all functions of leadership; the president shall be the official spokesperson of the Corporation and shall perform such other duties as may be specified in these ByLaws, by the Board of Directors, or that he deems necessary and proper.
E. The Vice-President shall perform all functions of leadership in the absence of the President and shall perform such other duties as the Board of Directors may specify.
F. The Secretary-Treasurer shall keep the minutes of all meetings of the Board of Directors and the Corporation and shall keep all of the official books and records of the Board of Directors/Corporation. He/she shall keep the books of accounts of the Corporation and shall have the primary custody and control of all the monies of the Corporation and shall deposit the same in such banks or other financial institutions as may be designated by the Board. He/she shall pay all legal claims against the Corporation when directed to do so by the Board of Directors. He/she shall make an annual report of the business and finances of the Corporation to the Board of Directors and to the general members of the Corporation and such reports as the Board may from time to time request; and he/she shall perform such other duties as may be specified by the Board of Directors.
G. The administration and perpetual management of the Corporation shall be vested in an Executive Secretary. He/she shall direct activities of the Corporation and perform such other duties as may be defined by the Board of Directors or delegated to the National Office by the Board of Directors.
H. In case any member of the Board of Directors of the Corporation shall for any reason be unable or shall fail to perform the duties of his/her office, the other members of the Board of Directors shall select or elect a successor for his/her remaining term of office, and then report their actions/rationale to the members of the Corporation.

## Section 3. Qualifications for candidate for a position on the Board of Directors

A. Qualifications for Candidates for a position on the Board of Directors
(1) The person must be a current member of NAM in good standing.
(2) The person must have held membership in NAM in good standing at least two years prior to the current fiscal year.
(3) The person must be currently employed as a professional mathematician.
(4) The person must have had previous employment at an institution of higher learning at least two of the last five ycars prior to the current year, an exception is to be made for the representative on the Board selected for Outside of Academia;
(5) The person must be selected as a nominee by the Legislation Nomination Committee (of the Board) as a candidate for the position, can be petitioned (by signature) to be put on the ballot by at least five percent of the financially current membership, or be selected for a position on the ballot by nomination from the floor with a simple majority vote of approval of the nomination by the membership at a regular/called meeting of the membership.
B. Qualifications for an At-Large Member position on the Board of Directors.
(1) The person must be a current member of NAM in good standing.
(2) The person must have held membership in NAM in good standing at least two years prior to the current fiscal year.
(3) The person must be currently employed as a professional mathematician and he or she must be qualified/a bonafide person for the position being considered.
(4) The person must be sclected as a nominee by the Legislation and Nomination Committee (of the Board) as a candidate for the position, be petitioned (by signature) to be put on the ballot by at least five percent of the financially current membership, or be selected for a position on the ballot by nomination from the floor with a simple majority vote of approval of the nomination by the membership at a regular or called meeting of the membership.

## Section 4. Composition of the Board of Directors, Terms of Office, Elections

A. The Board of Directors shall consist of the three officers of the Board and of the Corporation: a president, a vice-president, and a secretary-treasurer, an editor; members at large representing special areas of concern:
Member R-A, elected to represent Region A; Member R-B, elected to represent Region B
Member R-C, elected to represent Region C; Member M-I, elected to represent Majority Institution
Member C-C, elected to represent Community Colleges [added by Amendment in 1999$]$
Member O-A, elected to represent mathematicians outside of academia, and the Executive Secretary
Election Cycles: 1999, Cycle I: Member R-A, Government/Industry Member, President
2000, Cycle II: Member R-B, Majority Institution, Vice President
2001, Cycle III: Member R-C, Community College, Secretary/Treasurer; repeat cycles.
B. All members of the Board shall be elected to a term of office for a period of two years and elections shall be staggered for continuity. Regular elections shall occur in the fall of each year and the persons elected shall be duly installed at the first Annual NAM meeting following the election.
The term of each elected position is now three (3) years. [changed by an Amendment in 1998]
C. The Editor shall be responsible for the production of the Corporation's Newsletter and shall perform such other duties as the Board of Directors may specify. Beginning in 2000, the editor will be an appointed position for a period of three years. [changed by an Amendment in 1999]
D. The Executive Secretary shall be selected to serve for a period of five (5) years and shall begin the term of office at the Spring Board Meeting. His/her selection must be the unanimous choice of the existing Board of Directors. In 2000, a new Executive Secretary is scheduled to be appointed.
E. The election of the members of the Board of Directors shall be by official ballots and shall be supervised by the Board of Director's Committee on Legislation-Nomination when the election is by mail, all current members in good standing in NAM shall be provided a ballot and given reasonable time to return it.

## Section 5. The Standing Committees of NAM's Board if Directors

A. Listed below are the Standing Committees of NAM's Board of Directors with the chairperson and vice-chairperson as designated.

Standing Committees

1. Executive
2. Membership
3. Programs
4. Finance
5. Publications-Publicity
6. Legislation-Nomination
7. Services-Special Projects
8. Region A Activity
9. Region B Activity
10. Region C Activity
11. Awards-Recognitions

Chairperson
President
Member C-C
Vice-President
Sec. Trcasurer
Editor
Member M-I
Member O-A
Member R-A
Member R-B
Member R-C
Exec. Secretary

Vice-Chairperson
Executive Sec.
Member M-I
Member R-C
Member O-A
Member R-B
Executive Sce.
Member R-A
Sccretary-Treasurer
Vice President
Member C-C
President

The Board of Directors may designate other persons to serve on these Committees if they desire or chairpersons may select/appoint other members to scrve.
B. All Standing Committees are to have a maximum membership of seven persons unless designated otherwise by special approval of the Board of Directors. All Standing Committees arc directly under the jurisdiction of the Board of Directors and all chairpersons and vice-chairpersons of these committees must be members of the Board. Other selected on these committees must be members of NAM.
C. Duties of Standing Committecs

## 1. Executive

This Committee's duties were defined under Board member responsibilities.

## 2. Membership Committee

This Committee has the responsibility for keeping the membership of NAM viable. This Committee is to develop proper forms for membership applications, for acknowledging the receipt of membership dues (membership cards), for informing and reminding persons that their dues are in the rear. Rules and procedures should be developed as to what kinds of products and services that NAM can and/or shall provide it members.

The major ongoing activities of this Committee will be that of developing and implementing Recruitment Strategies and that of keeping accurate membership records which also reflect current addresses and current financial status of all members as well as sct membership goals and strategies to reach these goals.

## 3. Program Committee

This Committec has the responsibility of planning, organizing and implementing all the official programs of NAM at the National and Regional levels, annually, and all the official activities of NAM at these levels as well as assist with activities of the State and Institutional levels. This committee, when and where feasible, is requested to standardize its annual programs in terms of format and procedure, with special attention to be given to dates and places by deciding on these as carly as possible and publicizing them in the Newsletter. A two-ycar advanced schedule is desirable.

## 4. Finance Committee

This committee has the responsibility of officially developing and publishing an annual financial report that accurately reflects the financial status of NAM as a business/non-profit corporation. These reports should be audited annuaily (internally or externally). Additionally, it is the responsibility of this committee to develop a two-year budget for NAM and to develop strategies for ensuring that monies will be available to support the budget. This may include reviewing and recommending new dues structuring, writing proposals to get financial support, investing NAM's trust funds for higher yield, planned giving, etc. This committee is to make recommendations on all activities of NAM for which NAM funds are being requested for support.

## 5. Publication-Publicity Committee

This committee has the responsibility of producing a quarterly newsletter, establishing all the rules and regulations with regard to the production of this Newsletter, projecting a minimal budget for the operation of this Newsletter and properly distributing it to all members and any other persons approved by the Board. By the way of the Newsletter, all the activities of NAM and all information deemed relevant to NAM is to be publicized. This Committee is to constantly implement plans and strategies for soliciting and obtaining materials to be printed in the Newsletter. The responsibility of this Committee also includes the investigation of all questions with regards to official publications on behalf of NAM and to develop all policies concerning official publications by NAM as well as to make recommendations about publications to the Board of Directors for their actions. Specifically, this Committce is to be responsible for the production and distribution of an annual Proceedings for NAM.

## 6. Legislation-Nomination Committee

This Committee has the responsibility of recommending and formulating in words all the updating or amending the By-Laws of NAM; developing rules and procedures (not otherwise designated) for soliciting nominations for a slate of Board members to be elected; establishing election dates and procedures, developing, distributing and tallying all ballots; as well as submitting all nomination slates and all results of an election to the Board prior to announcing these otherwise.

## 7. Services-Special Projects Committee

This Committec has the responsibility of approving and coordinating all services and special projects for NAM; developing and maintaining databases/directories for NAM, as well as establishing all the rules and procedures for NAM with regard to handling services and special projects approved; and constantly evaluating the above items and providing the Board of Directors with an annual status report and recommendations regarding all services and special projects.

## 8. Region A Activity Committee

This Committee shall consist of all the appointed representatives in Region A: State/Area and Institutional. The primary responsibilities of this Committce is that of planning and implementing the activities of NAM for this region as outlined in the By-Laws and as agreed by this group. Member R-A is the elected chairperson of this group. This Committee may exceed the maximum membership of seven.

## 9. Region B Activity Committee

This Committee shall consist of all the appointed representatives in Region B: State/Area Institutional. The primary responsibilitics of this Committee is that of planning and implementing the activities of NAM for this region as outlined in the By-Laws and as agreed by this group. Member R-B is the elected chairperson of this Committee. This Committee may have more than seven members.

## 10. Region C Activity Committee

This Committee shall consist of all the appointed representatives in Region C: State/Area and Institutional. The primary responsibilities of this Committee is that of planning and implementing the activities of NAM for this region as outlined in the By-Laws and as agreed by this group. Member R-C is the elected chairperson of this Committce. This Committee may have more than seven members.
11. Awards-Recognitions Committee

It is the responsibility of this Committec to review and make recommendations regarding all awards and recognitions that are bcing considered to be given by NAM at the national, regional, state or institutional level. This includes, but is not limited to, distinguished service awards, plaques, certificates, honorary memberships, named lecture series, etc. Once the award or recognition has been approved by the Board, this Committee is responsible for obtaining and making available the physical award or citation.
D. The President and Executive Secretary are ex-official members of all Standing Committees.
E. All official activities of the Board, not coming under the responsibility of the above Standing Committees, will be assigned to a task force, a Subcommittee of a Standing Committee, or it will become the responsibility of the Executive Secretary/National Office.

## ARTICLE V. STATE/ AREA REPRESENTATIVES

## Section 1. Territorial Determination and Selection Process

A. Any State, Area or Territory of the United States having two or more HBCU/MI's qualifies as a candidate for NAM's Board of Directors to select-appoint a State/Area Representative to serve as a liaison person for the promotion and facilitation of NAM's activities and affairs in that State/Area/Territory.
B. The District of Columbia qualifies by its uniqueness for the appointment of a NAM Area Representative to serve as a liaison person for the promotion and facilitation of NAM's activities and affairs in the District of Columbia.
C. Each State/Area Representative shall be selected-appointed for a period of two years.
D. Persons selected-appointed to a position of the State/Area Representatives by the Board of Directors may be chosen by whatever method or procedure the Board of Directors may deem proper and effective for a given state/area.

## Section 2. Affiliation with the Board of Directors

Each State/Area Representative is an official member of the Regional Activity Committee for that region.

## Section 3. Qualifications for a State/Area Representative

A. Each State/Area Representative must be a regular member of NAM in good standing at the time of appointment.
B. Each State/Area Representative must have been a member of NAM for at least two years prior to their appointment.
C. Each State/Area Representative must have resided and have been employed at least two immediate consecutive years in the state/area prior to an àppointment as a Representative in that state/area.
D. Each State/Area Representative must be employed as a professional mathematician in the state/area being represented.

## Section 4. Responsibilities and Duties of the State/Area Representatives

A. At the beginning of each academic year, each State or Area Representative is required to select or appoint a person to be NAM's Institutional Representative at each of the HBCU/MI's in the state/area
B. At the beginning of each academic year, each State/Area Representative is required to attempt to identify under-represented American minority mathematical scientists in non-minority institutions, government and industry in the state/area and under-represented American minority graduate students studying a mathematical science at an institution located the state/area; send their names and addresses to the Executive Secretary of NAM and encourage these persons to become active members of NAM.
C. Each State/Area Representative of NAM is required to plan and conduct (with assistance from Institutional Representatives in his state/area at least one meeting annually. Announcements prior to the meeting and a detailed written report of the meeting is to be sent to the Executive Secretary of NAM and to NAM's Newsletter as well as to the Region Representative on NAM's Board.
D. Each State/Area Representative is an official member of the Regional Activity Committee. Each year in January, cach Representative is to file an annual report with the Regional Activity Committee Chairperson and with the Executive Secretary of NAM. This report should be a summary of NAM's activities in his/her area over the past year, projections for the next year and suggestions of activities at the Regional and National level for the next two years.
E. Each State/Area Representative is required to submit (and encourage others to submit) information of interest to NAM's Newsletter and other publications, and to NAM's databases.

## ARTICLE VI. NAM'S INSTITUTIONAL REPRESENTATIVES

## Section 1. Institutions where Representatives are to be Selected-Appointed

Each HCBU/MI in a state/area that has a NAM State/Area Representative shall have an Institutional Representative to serve as a liaison for the promotion and facilitation of NAM's activities at the institution of higher learning where he/she has bcen appointed.

## Section 2. Term of Appointment and Selection Process

A. Each Institutional Representative shall be selected-appointed for a period of two years.
B. Each State/Arca Representative is to select-appoint an Institutional Representative by whatever method or procedure the State or Area Representative deems proper and effective for a given institution.
C. Each Institutional Representative shall be a full time employee in an area of mathematical science (at the time of appointment) at the institution where he/she is appointed.

## Section 3. Affiliation with NAM

Each Institutional Representative is an official member of the Regional Activity Committee of the region in which he/she resides.

## Section 4. Responsibilities and Duties of Institutional Representatives

A. Serve as NAM's Liaison person at the institutions of his/her appointment.
B. Solicit membership and involvement in NAM from collcagues of their institutions;
C. Organize and preside over at least one NAM awareness meeting at their host institution annually;
D. Serve on national, regional, and state committees of NAM that are compatibie to interest;
E. Submit information of interest to NAM's Newsletter and other NAM publication, and to NAM's databases.

## ARTICLE VII. NAM'S NATIONAL OFFICE <br> (Office of the Executive Secretary)

## Section 1. Purpose and Primary Function

A. NAM's Board of Dircetors shall establish and maintain a National Office, to be operated by the Executive Secretary and a small support staff.
B. The Office's telephone and post office address is to serve as the official national headquarters of NAM.
C. The Office is to be the focal point and physical location of the major perfunctory and perpetual activities of NAM that have not been delegated otherwise.
D. The Office shall serve as the focal point of all major communications and distributions that are received and transmitted by NAM.

## Section 2. Authority

The perpetual operation and day-to-day decision-making in the Office shall be part of the authority vested in the Exccutive Secretary.

## ARTICLE VIII. MEETINGS

## Section 1. Membership

A. There shall be an Annual Mecting for the membership of the Corporation each year for receiving reports, transacting the business affairs that are germane to the membership, and for presenting programs and activities that are deemed proper and worthwhile. All Annual Meetings shall be announced to the membership via Newsletter at least ninety ( 90 ) days prior to the date of the meeting.
B. A special meeting may be called by the Board of Directors or upon the petition of two-thirds of the membership. All notices of a special mecting shall be sent by mail to each member at his/her post office address as shown by the records of the Corporation (or otherwise delivered) at least fourteen days prior to the date of the mecting.
C. A Quorum shall consist of those members present at a properly called meeting.

## Section 2. Representatives

There shall be an annual meeting of the Rcgional Activity Committees of NAM at the time and place deemed most feasible for the meeting to occur. All State/Area and Institutional Representatives are members of the Committec and are required to attend the meetings when feasible.

## Section 3. Board of Directors

Sce Article IV for responsibilities of mectings of the Board of Directors.

## ARTICLE IX. PERPETUAL ACTIVITIES OF THE CORPORATION

## Section 1. Publications

A. The Corporation shall publish a Newsletter at least quarterly, reporting items of information for the membership that will aid NAM in the accomplishing of its mission, purpose and goals.
B. The Corporation shall develop and maintain the publication of a Mathematical Sciences Journal; at least one issue a year shall be published. The journal shall print research articles, articles in mathematics education, and other appropriate items of interest to the Mathematical Sciences Community.
C. NAM shall encourage and engage in the publications of books and monograms that are relative to under-represented American minorities in mathematics and in general.

## Section 2. Databases-Directories

A. The Corporation shall develop and maintain a current directory (database) of under-represented mathematical scientists and educators in the United States especially of those who have carned a doctorate degrec.
B. The Corporation shall develop and maintain a current directory (database) of all under-represented American graduate students studying for a doctorate degree in one of the mathematical sciences.
C. The Corporation shall develop and maintain a current directory (database) of all faculty in the mathematical sciences at HBCU/MI's.
D. The Corporation shall develop and maintain a current directory (database) of all mathematical sciences programs offered at $\mathrm{HBCU} / \mathrm{MI}$.
E. The Corporation shall develop and maintain a current directory (database) of the under-represented American minority undergraduate enrollments in the degree programs in the mathematical sciences at the junior and senior levels at HBCU/Mr's.

## Section 3. Reports

The Corporation shall research, compile and disseminate reports about various issues of the mathematical sciences that are deemed useful in achieving the mission, purposes and goals of NAM.

## Section 4. Conference-Workshop

The Corporation shall convene and host conferences and workshops that are deemed appropriate for helping to achieve some aspects of the mission, purposes and goals of NAM.

## Section 5. Service Bureaus

A. NAM shall establish and maintain a current Speaker Bureau Service to be available for the total mathematical sciences community but will give preference to serving HBCU/MI's and public schools.
B. NAM shall establish and maintain a current Consultant Bureau Service to be available to the total mathematics community but will give preference to serving HBCU/MI's and public schools.

## Section 6. Undergraduate Student Incentives

NAM will annually engage in some appropriate activities at some organizational level of NAM to encourage undergraduate students to pursue careers in the mathematical sciences.

## ARTICLE X. AMENDMENTS

## Section 1. Vote and Manner

These By-Laws may be amended by two-thirds of the votes cast by the membership at a properly called meeting or by two-thirds of the votes returned in a mail ballot.

## Section 2. Process

A proposed amendment shall be submitted in writing to every member of the Corporation at least thirty days prior to the actual vote on the amendment.

## Section 3. Revision or Extension of By Laws

A. A complete revision of the By-Laws will be subject to the same procedure as that for amending the By-Laws.
B. An updating of these By-Laws may be done by a three-fourths approval of the Board of Directors, where the updating does not involve adding or deleting entire amendments or totally altering the basic intent of an existing amendment.

## H. NAM'S PRESIDENTS AND EXECUTIVE SECRETARIES

## PRESIDENTS -... NAM -..- EXECUTIVE SECRETARIES

| 1969 | Johnny L. Houston (Acting) |  |  |
| :--- | :--- | :--- | :--- |
| 1970 | Irvin Vance |  |  |
| 1971 | Frank James | 1971 | Bernis Barnes (Appointed for one year before |
| 1972 | Frank James | 1972 | Vacant |
| 1973 | Theodore Sykes | 1973 | Vacant |
| 1974 | Theodore Sykes | 1974 | Vacant |
| 1975 | Japheth Hall | 1975 | Johnny L. Houston |
| 1976 | Japheth Hall | 1976 | Johnny L. Houston |
| 1977 | Samuel Douglas | 1977 | Johnny L. Houston |
| 1978 | Samuel Douglas | 1978 | Johnny L. Houston |
| 1979 | Samuel Douglas | 1979 | Johnny L. Houston |
| 1980 | Samuel Douglas | 1980 | Johnny L. Houston |
| 1981 | Samuel Douglas | 1981 | Johnny L. Houston |
| 1982 | Samuel Douglas | 1982 | Johnny L. Houston |
| 1983 | Samuel Douglas | 1983 | Johnny L. Houston |
| 1984 | Roger Newman | 1984 | Johnny L. Houston |
| 1985 | Roger Newman | 1985 | Johnny L. Houston |
| 1986 | Roger Newman | 1986 | Johnny L. Houston |
| 1987 | Roger Newman | 1987 | Johnny L. Houston |
| 1988 | Roger Newman | 1988 | Johnny L. Houston |
| 1989 | Roger Newman | 1989 | Johnny L. Houston |
| 1990 | Roger Newman | 1990 | Johnny L. Houston |
| 1991 | Roger Newman | 1991 | Johnny L. Houston |
| 1992 | Roger Newman | 1992 | Johnny L. Houston |
| 1993 | Roger Newman | 1993 | Johnny L. Houston |
| 1994 | John Alexander | 1994 | Johnny L. Houston |
| 1995 | John Alexander | 1995 | Johnny L. Houston |
| 1996 | John Alexander | 1996 | Johnny L. Houston |
| 1997 | John Alexander | 1997 | Johnny L. Houston |
| 1998 | John Alexander | 1998 | Johnny L. Houston |
| 1999 | John Alexander | 1999 | Johnny L. Houston |
| 1000 | John Alexander | 2000 | Johnny L. Houston |
|  |  |  |  |

## 1. NAN'S PAST EEADERSHIP GROUPS AND BOARD OF DIRECTORS, 1969-1999

1. Executive Committe: 1969

Acting Chairman: Johny L Houston, Stillman College
Acting Secretary: Vivienne Mayes, Bay lor University
2. Executive Committee: 1970

| Chairman: | Irvin Vance, Michigan State University |
| :--- | :--- |
| Other Members: | Frank Jatıes, Grambling College |
|  | James Joseph, Federal City College |
|  | Benjamin Martin, Southern University |
|  | L.K. Bradley, Texas Southern University |
|  | E.M. Carroll, New York University |
|  | Recorder: Vera Rugley |

3. Executive Committee: 1970-1972

President: Frank James, Grambling College
First Vice-President: Walter Talbot, Morgan State College
Sccond Vice-President: Edward Carroll, New York University
Treasurer: Lillian Bradley, Texas Southern University
Recording Secretary: Etta Falconcr, Spelman College
At-Large Member at
Non-Black Institution: Irvin Vance, Mich State University
Executive Secretary: Bernis Barnes (NAM had not established a National Office)
Coordinator of Activitics: Benjamin Martin, Southern University
4. Executive Committee: 1973-1974

| President: | Theodore Svkes, Fisk University |
| :--- | :--- |
| Vicc-President: | Japheth Hall, Jr., Stillman College |
| Sccretary-Treasurer: | Geraldine Darden, Hampton Institute |
| Editor: | Eleanor Jones, Norfolk State College |
| Board Members | Walter Talbot, Morgan State College |
| at Large: | Frank James, Univ Arkansas Little Rock |

## 5. Board of Directors: 1975-1976

President: Japheth Hall, Jr., Stillman College<br>Vice-President: Eleanor Jones, Norfolk State College<br>Sccretary-Treasurer: Geraldinc Darden, Hampton Institute<br>Editor: Virginia Newell, Winston-Salem State University<br>Executive Secretary: Johnny Houston. Savannah State College<br>Board Members at Large: Benjamin Martin, Morehouse Colicge<br>Louis Richards, Virginia State University

## 6. Board of Directors: 1977

| President: | Samuel Douglas, Grambling State College |
| :--- | :--- |
| Vice-Prcsident: | Elcanor Jones, Norfolk State College |
| Secretary-Treasurer: | Geraldine Darden, Hampton Institute |
| Editor: | Virginia Newell, Winston-Salem State University |
| Executive Secretary: | Johnny Houston, Atlanta University |
| Member-at-Large: | Louis Dale, Miles College/Univ of Alabama-Birmingham <br>  <br>  <br> Benjamin J. Martin, Morchousc Collcge |

## 7. Board of Directors: 1978

| President: | Samuel Douglas, Grambling College |
| :--- | :--- |
| Vice-President: | Eleanor Jones, Norfolk State College |
| Secretary-Treasurer: | Geraldine Darden, Hampton Institute |
| Editor: | Virginia Newell, Winston-Salem State University |
| Executive Secretary: | Johnny Houston, Atlanta University |
| Member-at-Large: | M. Solveig Espelie, Howard University |
|  | Benjamin J. Martin, Morehouse College |
|  | Louis Dale, Miles College/Univ of AL-Birmingham |

8. Board of Directors: 1979-1982

| President: | Samuel Douglas, Grambling College |
| :--- | :--- |
| Vice-President: | Eleanor Jones, Norfolk State College / Louis Richards, Virginia State College |
| Secretary-Treasurer: | Geraldine Darden, Hampton Institute |
| Editor: | Virginia Newell, Winston-Salem State University |
| Executive Secretary: | Johnny Houston, Atlanta University |
| Members-at-Large: | M. Solveig Espelie, Howard University <br>  <br>  <br>  <br>  <br>  <br> Benjamin J. Martin, Morehouse College <br> Louis Dale, Miles College/Univ of AL-Birmingham |

9. Board of Directors: 1983-1985

| President: | Samuel Douglas, Grambling Collcge Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | Louis Richards, State University at New York/Westbury |
| Secretary-Treasurer: | Harriet Walton, Morchouse College |
| Editor: | Roosevelt Gentry, Jackson State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Members-at-Large: | M. Solveig Espelie, Howard University |
|  | Louis Dale, Miles College/Univ of Alb-Birmingham |

## 10. Board of Directors: 1986-1987

| President: | Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | Sylvia Bozeman, Spelman College |
| Secretary/Treasurer: | Harriett Walton, Morehouse College |
| Editor: | James Donaldson, Howard University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Member-at-Large A: | Merdis McCarter, Winston Salem State University |
| Member-at-Large B: | Vivienne Mayes, Baylor University |
| Member-at-Large C: | Don Hill, Florida A \& M University |

## 11. Board of Directors: 1988-1989

| President: | Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | Sylvia Bozeman, Spelman College |
| Secretary/Treasurer: | Harriett Walton, Morehouse College |
| Editor: | James Donaldson, Howard University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Member-at-Large A: | Merdis McCarter, Winston Salem State University |
| Member-at-Large B: | Vivienne Mayes, Baylor University |
| Member-at-Large C: | Don Hill, Florida A \& M University |

## 12. Board of Directors: 1990

| President: | Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | Gerald Chachere, Howard University |
| Secretary/Treasurer: | Harriett Walton, Morehousc College |
| Editor: | James Donaldson, Howard University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Eleanor Jones, Norfolk State University |
| Region B: | Vivienne Mayes, Baylor University |
| Region C: | Don Hill, Florida A \& M University |

13. Board of Directors: 1991

President: Rogers Newman, Southern University
Vice-President: Gerald Chachere, Howard University
Secretary/Treasurer: Robert Bozeman, Morehouse College
Editor: James Donaldson, Howard University
Executive Secretary: Johnny Houston, Elizabeth City State University
Region A: Eleanor Jones, Norfolk State University
Region B: $\quad$ Wilbur Smith, North Carolina A \& T University
Region C: Vivienne Mayes, Baylor University

## 14. Board of Directors: 1992

| President: | Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | John Alexander, Jr. University of District of Columbia |
| Secretary/Treasurer: | Robert Bozeman, Morehouse College |
| Editor: | Loretta Braxton, Virginia State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Eleanor Jones, Norfolk State University |
| Region B: | Wilbur Smith, North Carolina A \& T University |
| Region C: | Vivienne Mayes, Baylor University |

## 15. Board of Directors: 1993

| President: | Rogers Newman, Southern University |
| :--- | :--- |
| Vice-President: | John Alexander, Jr. University of District of Columbia |
| Secretary/Treasurer: | Robert Bozeman, Morehouse College |
| Editor: | Loretta Braxton, Virginia State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Eleanor Jones, Norfolk State University |
| Region B: | Wilbur Smith, North Carolina A \& T Univcrsity |
| Region C: | Mary Hawkins, Prairie View A \& M University |

## 16. Board of Directors: 1994

| President: | John Alexander, Jr., University of District of Columbia |
| :--- | :--- |
| Vice-President: | Stella Ashford, Southern University |
| Secretary/Treasurer: | Robert Bozeman, Morehouse College |
| Editor: | Loretta Braxton, Virginia State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Sylvia Bozeman, Spelman College |
| Region B: | Wilbur Smith, North Carolina A \& T University |
| Region C: | Mary Hawkins, Prairie View A \& M University |
| Majority Inst. Member: | Raymond Johnson, University of Maryland |
| President Emeritus: | Rogers Newman, Southern University |

17. Board of Directors: 1995

| President: | John Alexander, Jr., University of District of Columbia |
| :--- | :--- |
| Vice-President: | Stella Ashford, Southern University |
| Secretary/Treasurer: | Robert Bozeman, Morehouse College |
| Editor: | Loretta Braxton, Virginia State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Sylvia Bozeman, Spelman College |
| Region B: | Wilbur Smith, North Carolina A \& T University |
| Region C: | Mary Hawkins, Prairie View A \& M University |
| Majority Inst. Member: Raymond Johnson, University of Maryland |  |
| Gov't/Industry Member: Nathaniel Dean, Belcore |  |
| President Emeritus: | Rogers Newman, Southern University |

## 18. Board of Directors: 1996

President: John Alexander, Jr., National Research Council<br>Vicc-President: Stella Ashford, Southern University<br>Scerctary/Treasurer: Robert Bozeman. Morehousc College<br>Editor:<br>Executive Sccretary: Johnny Houston, Elizabeth City State University<br>Region A: Sylvia Bozeman, Spelman College<br>Region B: Wilbur Smith. North Carolina A \& T University<br>Region C: Mary Hawkins, Prairie View A \& M University<br>Community Coll Member: Jacqueline Giles, Houston Community College System<br>Majority Inst. Member: Raymond Johnson, University of Maryland<br>Gov t //Industry Mcmber: Nathanicl Dean, AT \& T Bell Labs<br>President Emeritus: Rogers Newman, Southern University

## 19. Board of Directors: 1997

| President: | John Alexander, Jr., National Research Council |
| :--- | :--- |
| Vice-President: | James Turncr, Jr., Florida A \& M University |
| Secretary/Treasurer: | Robert Bozeman, Morehouse College |
| Editor: | Janis Oldham, NC A \& T State University |
| Executive Secretary: | Johnny Houston, Elizabeth City State University |
| Region A: | Sylvia Bozeman, Spelman College |
| Region B: | Leon Woodson, Morgan State University |
| Region C: | Mary Hawkins, Prairie View A \& M University |
| Community Coll Member: Jacqueline Giles, Houston Community College System |  |
| Majority Inst. Member: | Gloria Hewitt, University of Montana/Missoula |
| Gov t/Industry Member: Nathaniel Dean, AT \& T Bell Labs |  |
| President Emeritus: | Rogers Newman, Southern University |

## 20. Board of Directors: 1998-99

President: John Alexander, Jr., Atlanta Metropolitan / Spelman College
Vice-President: James Turner, Jr., Arizona State University
Sceretary/Treasurer: Robert Bozeman, Morehouse College
Editor: Janis Oldham, NC A \& T State University
Executive Sccretary: Johnny Houston, Elizabeth City State University
Rogion A: Sylvia Bozeman, Spelman College
Region B: Lcon Woodson, Morgan State University
Region C: Mary Hawkins, Prairic View A \& M University
Community Coll Mcmber: Jacqueline Giles, Houston Community College System
Majority Inst. Member: Gloria Hewitt, University of Montana/Missoula
Gov`t/Industry Member: William Massey, AT \& T Bell Labs
President Emeritus: Rogers Newman. Southern University

## J. NAM'S LIFE TIME ACHIEVEMENT AWARD RECIPIENTS

The NAM Lifetime Achievement Award is given to a Mathematician-Mathematics Educator who has provided at least twenty-five years of exemplary service to the mathematical sciences community and who has affirmed by others as having been the kind of professional and role model whose professional life has made a difference, a professional life worthy of emulating.

## Recipient

Johnny L. Houston, Ph. D.
Clarence Stephens, Ph.D.
Charles B. Bell, Jr. , Ph.D.
Evelyn Boyd-Granville, Ph.D.
Lee Lorch, Ph.D.
J. Ernest Wilkins, Jr., Ph. D.

David Blackwell, Ph.D.

Date Presented
January 15, 1999
March 20, 1998
January 10, 1997
January 12, 1996
June 10, 1995
October 14, 1994
August 16, 1994

## K. SOME RECIPIENTS OF NAM'S DISTINGUISHED SERVICE AWARD

| $\quad$ Recipient |
| :--- |
| Dr. Earl Barnes |
| Dr. Joshua Leslie |
| Dr. James Robinson |
| (posthumously) |
| Dr. Nathaniel Pollard |
| Dr. Wilbur Smith |
| Dr. Stella Ashford |
| Dr. Loretta Braxton |
| Dr. Raymond Johnson |
| Dr. Carolyn Mahoney |
| Dr. Teresa Edwards |
| Dr. Ronald E. Mickens |
| Prof. Rosaland Exum |
| Dr. Mickey L. Burnim |
| Dr. William A. Massey |
| Dr. Irvin E. Vance |
| Dr. James Curry |
| Dr. A. D. Stewart |
| Dr. Llayron L. Clarkson |
| Dr. William Hawkins |
| Dr. Donald St. Mary |
| Dr. Etta Falconer |
| Dr. James Turner |
| Dr. Beauregard Stubblefield |
| Dr. Japheth Hall, Jr. |
| (posthumously) |
| Dr. Vivienne M. Mayes |
| Dr. Beauregard Stubblefield |
| Dr. Samuel Douglass |
| (posthumously) |
| Dr. Tepper Gill |
| Dr. Theodore Sykes |
| Dr. Frank James |
| Dr. Eleanor G. D. Jones |

Date Presented
January 1999
January 1998
January 1998
January 1997
January 1997
January 1997
January 1997
January 1997
January 1997
June 1997
March 1996
March 1996
October 1996

January 1995
January 1995
January 1995
March 1995
March 1995
April 1995
August 1995
January 1994
January 1994
April 1994
April 1994
April 1994
April 1994
April 1994
April 1994
April 1994
April 1994
April 1994

Recipient
Dr. M. Solveig Espelie (posthumously)
Dr. Edward Fort
Dr. James Hayes
Dr. Wilbur Smith
Dr. Janis Oldham
Prof. Patricia Shelton
Dr. James Hicks
Dr. Sullivan Welborn
Dr. Fern Hunt
Dr. Gloria Gilmer

Dr. Jimmy R. Jenkins
Dr. Amassa Fauntleroy
Dr. Harriot Walton
Dr. James Donaldson

Dr. Scott Williams
Dr. Johnny Houston
Dr. Marjorie Lee Browne January 1988
Dr. Evelyn Boyd-Granville January 1988
Dr. J. Ernest Wilkins

Dr. David Blackwell
Prof. Albert T. Bharucha-Reid January 1984
Prof. James Joseph January 1980
Dr. J. Arthur Jones
Dr. Charles Bell
Dr. Walter Talbot
(posthumously)

January 1986
January 1985

January 1980
Date Presented
April 1994
October 1994
October 1994
October 1994
October 1994
October 1994
October 1994
October 1994
January 1993
January 1992
May 1992

January 1991
October 1991
October 1991
January 1990
January 1990

January 1979
January 1978

## L.

Dr. John Alexander, Jr.
Life Member - NAM
Georgia

Dr. Earl Barnes
Life Member - NAM
California

Dr. Manuel Berrioazabal Life Member - NAM Texas

Dr. Evelyn Boyd-Granville Life Member - NAM Texas

Dr. Arthur E. Bragg
Life Member - NAM Delaware

Dr. Louis Dale
Life Member - NAM
Alabama

Prof. John Douglas, Jr.
Life Member - NAM Florida

Dr. Icabod Flewellen
Life Member - NAM Ohio

Dr. Tepper L. Gill
Life Member - NAM
District of Columbia

## NAM’s Life Members

## As of December 1999

Dr. Stella Ashford<br>Life Member - NAM<br>Louisiana

Dr. Lydia Barrett
Life Member - NAM
Georgia

Dr. Ronald Biggers
Life Member - NAM
Georgia

Dr. Robert Bozeman
Life Member - NAM
Georgia

Dr. Gerald Chachere
Life Member - NAM
District of Columbia

Dr. Nathaniel Dean
Life Member - NAM
Texas

Dr. Reuben Drake
Life Member - NAM
District of Columbia

Dr. Lloyd A. Gavin
Life Member - NAM
California

Dr. Mary Gray
Life Member - NAM
District of Columbia

Dr. Melvis Atkinson Life Member - NAM Georgia

Dr. Charles Bell
Life Member - NAM
Tennessee

Dr. David Blackwell
Life Member - NAM
California

Dr. Sylvia Bozeman
Life Member - NAM
Georgia

Dr. Duane A. Cooper
Life Member - NAM Maryland

Dr. James A. Donaldson Life Member - NAM District of Columbia

Dr. Etta Falconer Life Member - NAM Georgia

Prof. Jacqueline B. Giles Life Member - NAM Texas

Col. William Hargraves Life Member - NAM Ohio

Dr. Evelyn Hart Life Member - NAM New York

Dr. Melvin Heard Life Member - NAM Illinois

Dr. Don Hill
Life Member - NAM Florida

Dr. Frank James
Life Member - NAM Arkansas

Dr. Eleanor D. Jones
Life Member - NAM Virginia

Dr. Nathaniel Knox
Life Member - NAM
Maryland

Dr. Carolyn Mahoney
Life Member - NAM California

Dr. William A. Massey
Life Member - NAM
New Jersey

Dr. Robert Megginson Life Member - NAM Michigan

Dr. Rogers Newman Life Member - NAM Louisiana

Dr. Gerald Porter
Life Member - NAM
Pennsylvania

Dr. Frank T. Hawkins
Life Member - NAM
Texas

Dr. Leon Henkins<br>Life Member - NAM<br>California

Dr. Johnny L. Houston
Life Member - NAM
North Carolina

Prof. Charles Johnson Life Member - NAM North Carolina

Dr. Patricia Kenschaft Life Member - NAM New Jersey

Dr. Joshua A. Leslie Life Member - NAM
District of Columbia

Dr. Benjamin Martin Life Member - NAM Georgia

Dr. Jane Matthews Life Member - NAM New York

Dr. Ronald Mickens Life Member - NAM Georgia

Prof. Mohammad Nikravesh
Life Member - NAM South Carolina

Dr. Freda Porter-Locklear
Life Member - NAM
North Carolina

Dr. Mary S. Hawkins Life Member - NAM Texas

Dr. Gloria Hewitt
Life Member - NAM Montana

Prof. Ronald Jackson Life Member - NAM Alabama

Dr. Raymond L. Johnson
Life Member - NAM
Maryland

Dr. Genevieve M. Knight
Life Member - NAM
Maryland

Dr. Lee Lorch
Life Member - NAM
Canada

Dr. Thomas Mason Life Member - NAM Florida

Dr. Merdis McCarter Life Member - NAM North Carolina

Dr. n'Ekwunife Muoneke
Life Member - NAM Texas

Dr. Janis M. Oldham Life Member - NAM North Carolina

Dr. Louise A. Raphael Life Member - NAM District of Columbia

Dr. Abdulalim Shabazz
Life Member - NAM
Pennsylvania

Dr. Martha Siegel
Life Member - NAM Maryland
Mrs. Harriette Stephens
Life Member - NAM
New York

Dr. Shirley W. Thompson
Life Member - NAM
Georgia

Dr. Harriett Walton
Life Member - NAM
Georgia

Dr. Daniel Williams
Life Member - NAM
District of Columbia

Dr. Scott Williams
Life Member - NAM
New York

Dr. Lou Shapiro
Life Member - NAM
District of Columbia

Dr. Steven Shreve Life Member - NAM Pennsylvania

Dr. Clarence Stephens Life Member - NAM New York

Dr. Elaine Terry
Life Member - NAM Pennsylvania

Dr. James C. Turner, Jr Life Member - NAM Arizona

Dr. J. Ernest Wilkins Life Member - NAM Georgia

Prof. Robert F. Williams
Life Member - NAM
Texas

Dr. Leon Woodson Life Member - NAM Maryland

## M. NAM's Claytor Lectures

The Claytor Lecture will be a one hour scholarly address in honor of the late William Waldron Schieffelin Claytor, the third Black to receive the Ph.D. degree in mathematics. Professor Claytor's work has been cited by mathematicians over the years and he is considered by many to be the pioneer Black to make a concerted effort to devote his career to mathematical research. The Claytor Lecture was established in 1980 and is given annually at NAM's National Meeting in January.

| Year | Speaker | Lecture Title | Location | Date |
| :---: | :---: | :---: | :---: | :---: |
| 1999 | Dr. Earl Barnes | "Maximum Cliques \& Minimum Colorings of Graphs" | San Antonio, TX | Jan. 16, 1999 |
| 1998 | Dr. Joshua Leslie | "Lie's 3 rd Theorem in Infinite Dimenson" | Baltimore, MD | Jan. 10, 1998 |
| 1997 | Dr. Carolyn Mahoney | "On Calculating The Log Concavity of Matriods" | San Diego, CA | Jan. 11,1997 |
| 1996 | Dr. William Massey | "The Mathematics of Queuing Networks" | Orlando, FL | Jan. 13, 1996 |
| 1995 | Dr. James Curry | "Endomorphisms \& the Factorization of Polynomials" | San Francisco, CA | Jan. 7, 1995 |
| 1994 | Dr. James Turner, Jr. | "A Novel Approach to Turbulent Modeling" | Cincinnati, OH | Jan. 15, 1994 |
| 1993 | Dr. Fern Hunt | "Approximating the Invariant Measures of Finite Dimensional Maps" | San Antonio, TX | Jan. 16, 1993 |
| 1991 | Dr. Amassa Fauntleroy | "Projective Subspaces of Hermitian Symmetric Spaces" | San Francisco, CA | Jan. 19, 1991 |
| 1990 | Dr. Scott Williams | "The Box Product Problem" | Louisville, KY | Jan. 19, 1990 |
| 1989 | Dr. James Robinson | "Crownover Shifts \& Schauder Bases" | Phoenix, AZ | Jan. 15, 1989 |
| 1988 | Dr. Wade Ellis, Jr. | "What Do Your Need To Know For Sure" | Atlanta, GA | Jan. 1988 |
| 1987 | Curtis Clark, Bessie Tucker, Donald Cole, ( 15 min . each) | NAM's Claytor Session of Invited Presentations | San Antonio, TX | Jan. 1987 |
| 1986 | Dr. J. Ernest Wilkins, Jr. | "Optimization of Extended Surfaces for Heat Transfer" | New Orleans, LA | Jan. 11, 1986 |
| 1985 | Dr. David Blackwell | "Three Applications of Topolgy to Statistics" | Anaheim, CA | Jan. 12, 1985 |
| 1984 | Dr. Albert Bharucha-Reid | "Some ApplicationsUsing Probabiblity Analysis" | Louisville, KY | Jan. 1984 |
| 1980 | Prof. James Joseph | "Some New Continuity Notions and Applications" | San Antonio, TX | Jan. 4, 1980 |

National Association of Mathematicians Cox-Talbot Address January 15, 1999
$6: 00$ p.m.
Grand Salon D
Marriott Rivercenter
An activity of the
1999 Annual National Meeting
In conjunction with
The Joint Mathematics Meetings
January 13-16, 1999
San Antonio, Texas
1999 National Meeting

Panel: Effective Networking and Research Dialogue
via Teleconference/Telecommunication
Moderator: Leon C. Woodson, Morgan St University Panelists: James C, Turner, Arizona State University Kenneth Hoffman, MSRI
Tepper Gill, Howard University
Room 107, CC
Business Meeting
John W. Alexander, Jr., Presiding
Room 107, CC
NAM William W.S. Claytor Lecture
"Maximum Cliques and Minimum Colorings in
Graphs"
Dr. Ear R, Barnes, Georgia Institute of Technology
Room 107, CC Room 107, CC
January 16
9:00-10:00 a.m.
10:00-10:55 a.m
1:00-2:00 p.m.

Elbert Frank Cox was born in Evansville, Indiana, December 5, 1895. He earned the baccalaureate degree from lite University of Indiana in 1917 with a majo mathematics. After serving in the U.S. Army in France during World War I, he returned to pursue a career in teaching. Bcfore enrolling 1922 he taught mathematics program at Cornell Universily in Septernber, 1922, he taught University in Raleigh, North Carolina. In 1925, he was awarded the doctor of philosophy degree in mathematics from Cornell and, thus, he is the first known Black person to receive the Ph.D. degree in mathematics in the United States.

In September, 1925, Cox accepted a teaching position at West Virginia State College. He staycd there four years and in 1929 moved to Howard University. Cox remained at Howard until his retirement in 1965 and Served is Chairman of the Mathematics Department, at the time of the inauguration of the Ph.D. program, established the Elbert F. Cox Scholarship Fund for undergraduate mathematics majors to encourage young black students to study mathematics at the graduate level.

## WALTER RICHARD TALBOT

(1909-1977)
Walter Richard Tulbot was born in Pittsburgh, Pennsylvania, December 9, 1909. Ite attended the University of Pittsburgh and received thee A.B., M.A. and Ph.D. degrees in mathematics from that institution in 1931, 33, and 34, respectively. In 1934 he accepted an assistant professorship in the Mathematics Department at
Lincoln University (Missouri) and remained there, moving through the ranks to professor, until 1963. While at Lincoln, he held several administrative positions: Chairman, Mathematics Department, 1940-63, Dean of Men, 1939-44; Registrar, 1946-48; Acting Dcan of Instruction, 1955-57. In 1963, Talbot moved to Morgan State University (formerly Morgan State College) as Chairman and Professor of Mathematics. He retired from Morgan in 1977.

Talbot's scientific interests were in mathematical and numerical analysis and computer science. During his career, Talbot was concerned about the teaching of mathematics and computer science. He served the Mathematical Association of America in several capacities and was a participant in the founding of NAM. In 1978, NAM honored him "in memoria" at a luncheon and Morgan State University students and his service to the mathematical community will not be forgotlen.

## N. NAM'S COX-TALBOT ADDRESS

It is planned that the Cox-Talbot Address shall occur during the NAM Luncheon/Banquet. The address has been inaugurated in honor of the first and fourth Blacks to earn the Ph.D. degree in mathematics. Each year NAM will invite a mathematical scientist or educator who exemplifies the spirit of Cox and Talbot in both personal achievement and service to the mathematical community.

| $\frac{\text { Year }}{1999}$ | Speaker | Lecture Title <br> Dr. Johnny L. Houston | "The End of One Era, <br> the Dawn of Another" | San Antonio, TX |
| :--- | :--- | :--- | :--- | :--- |$\quad$| Jan. 15, 1999 |
| :---: |

## O. PRESENTERS: GRANVILLE-BROWNE SESSIONS OF RECENT PH. D. RECIPIENTS, 1989-99

1. NAM's National Meeting;

Name
De Juran Richardson
Arouna Davies
Nathaniel Dean
n'Ekwunife Muoneke
Melvin Currie
Shiferaw Berhanu
Abdulkeni Zekeria
2. NAM's National Meeting;

Name
Rosalyn Williams
Leon Woodson
Dennis Davenport
Amha Lisan
3. NAM's National Meeting;

No Presentations Were Recorded
4. NAM's National Meeting;

Name
Stella Ashford
Teresa Edwards
5. NAM's National Meeting;

Name
Patricia Beaulieu
Boyd Coan
Charles Pierre
Eleanor Velasquez
6. NAM's National Meeting;

Name
Ollies Manyes
Vernise Steadman
Lloyd Edwards
Freda Porter-Locklear
Marcia Ciol

Phoenix, AZ January 1989
Institution
Lake Forest College
Prairie View A \& M University.
Bellcore
Prairie View A \& M
University of Richmond
Temple University
Fitchburg State College
Louisville, KY January 1990
Institution
Florida A \& M University
Howard University
Miami University
Louisiana State University
San Francisco, CA January 1991

Baltimore, MD January 1992
Institution
Southern University
Spelman College
San Antonio, TX January 1993
Institution
Univ. of Southern Louisiana
Hampton University
San Jose State University
University of California/Berkeley
Cincinnati, OH January 1994
Institution
Bradley University
University of the District of Columbia
University of North Carolina/Chapel Hill
Pembroke State University
University of Washington/Seattle
7. NAM's National Meeting;

Name
Juanita Bates
Duane Cooper
Dawn Lott-Crumpler
Aniekan Ebiefung
8. NAM's National Meeting;

Name
Patty Anthony
Shannon Cobb
Debra Curtis
Maria Dunn
Andrea Lawrence
Joseph Meyiness
Gregory Smith
9. NAM's National Meeting;

Name
David Farley
10. NAM's National Meeting; Name
Errol Rowe
Alfred Noel
Michael Keeve
Alan Togebe
Mark Smith
Elaine Terry
11. NAM's National Meeting;

Name
Pamela Williams
Sonya Stephens
Mark Smith
Monica Stephens
Afi Harrington
Rhonda Sharpe
Garakai Campbell

San Francisco, CA January 1995
Institution
Southern University
University of Maryland/College Park
University of Maryland/College Park
University of Tennessee/Chattanooga
Orlando, FL January 1996
Institution
National Security Agency
University of Alabama/Huntsville
Bloomfield College
Southern University
Spelman College
Southern University
Norfolk State University
San Diego, CA January 1997
Institution
Vanderbilt University
Baltimore, MD January 1998
Institution
North Carolina A \& T State Univ.
Northcast University
Norfolk State University
University of Laval
AT \& T Research Labs
St. Joseph`s University
San Antonio, TX January 1999
Institution
Sandia National Labs
Florida A \& M University
AT \& T Research Labs
University of Wisconsin/Madison
National Security Agency
Barnard Coll/Columbia Univ
Swarthmore College

## P. NAM'S ANNUAL FACULTY REGIONAL CONFERENCE ON RESEARCH AND TEACHING EXCELLENCE

Location of Site By Years

| Year <br> $* * * * * * *$ | Event \# <br> $* * * * * * * *$ | Region <br> $* * * * * * * *$ | Host Institution <br> $* * * * * * * * * * * * * * * * * * * * * *$ | City - State <br> $* * * * * * * * * * * * ~$ |
| :--- | :--- | :--- | :--- | :--- |
| 1994 | I | A | Morris Brown College | Atlanta, GA |
| 1995 | II | C | Texas Southern University | Houston, TX |
| 1996 | III | B | Norfolk State University | Norfolk, VA |
| 1997 | IV | A | Tuskegee University | Tuskegee, AL |
| 1998 | V | C | Lemoyne-Owen Collcge | Memphis, TN |
| 1999 | VI | B | Howard University | Washington, DC |
| 2000 | VII | A | Alabama A\&M University | Normal, AL |
| 2001 | VIII | C | Jackson State Univ. (tentative) | Jackson, MS |
| 2002 | IX | B | TBA (tentative) |  |

## NAM's Regional Faculty Conference On Research and Teaching Excellence GENERAL FORMAT

## Friday

11:00 am --- 12:30 pm
12:30 pm - 2:00 pm
2:30 pm -- $4: 30 \mathrm{pm}$
5:00 pm --- 6:00 pm
6:30 pm --- 8:30 pm
Registration
Lunch And Opening Session
Short Course: In Computational Science
Albert Turner Bharucha-Reid Lecture
Recognition Banquet
Saturday
8:15 am --- 8:45 am
Continental Breakfast
MORNING SESSION
8:50 am --- 9:20 am
9:30 am - 10:00 am
10:10 am --- 10:30 am
10:30 am --- 11:00 am
11:10 am - 11:40 am
11:45 am - 1:15 pm
Faculty Presentation I
Faculty Presentation II
Break
Faculty Presentation III
Faculty Presentation IV
Lunch and Regional Business Meeting

| AFTERNOON SESSION |  |
| :--- | :--- |
| $1: 30 \mathrm{pm}--2: 00 \mathrm{pm}$ | Faculty Presentation V |
| $2: 10 \mathrm{pm}--2: 40 \mathrm{pm}$ | Faculty Presentation VI |
| $2: 40 \mathrm{pm}--3: 00 \mathrm{pm}$ | Beverage Break |
| $3: 00 \mathrm{pm}--\mathbf{3 : 4 5} \mathrm{pm}$ | NAM's Regional Panel |
| $3: 45 \mathrm{pm}--\mathbf{4 : 0 0} \mathrm{pm}$ | Closing Session/Wrap-Up |
|  | Adjournment |

# National Association of Mathematicians 



# The 1999 Regional Faculty Conference on Research and Teaching Excellence 

Region B<br>Mid-Atlantic

Delaware
Kentucky
New York

New York<br>North Carolina Maryland

District of Columbia

Virginia
W. Virginia

Pennsylvania

March 19-20, 1999

## Howard University <br> Washington, DC

Conference Hotel: Washington Plaza Hotel
10 Thomas Circle, Washington, D.C.
Conference Coordinators: Dr. Walter Miller
Mathematics Department, Howard University
Dr. Leon Woodson, NAM Board, Region B

Friday, March 19
11:00a.m. - 12:30p.m.
12:30p.m. - 2:00p.m.
$* * *$

## The Occasion Dr. J. L. Houston

## Short Course in Computational Science

Dr. John W. Alexander, Atlanta Metropolitan Coll Prof. Richard Bayne, Howard University


Albert Turner Bharucha-Reid Lecture Topic: "Industrial Perspectives on Mathematics"
Dr. William Massey, Lucent Technologies - Bell Labs NAM's Recognition Dinmer
Washington Plaza Hotel

2:30p.m. - 4:30p.m.
5:00p.m. - 6:00p.m.
6:30p.m. - 8:30p.m.
Q. PRESENTERS: NAM'S FACULTY CONFERENCE ON RESEARCH AND TEACHING EXCELLENCE, 1994-1999

\author{

1. Morris-Brown College; Atlanta, GA <br> Name <br> Roselyn Williams <br> Samuel Masih <br> Yewande Olummo <br> J. Ernest Wilkins, Jr. <br> *Bharucha-Reid Lecture <br> Tepper Gill <br> Institution <br> Florida A \& M University <br> Albany State College <br> Spelman College <br> Clark-Atlanta University <br> Howard University
}

April 22-23, 1994
Title
"Constructing Finite Dimensional Algebra using Matrices"
"What is Interactive Pre-calculus?"
"Base and Order-Unit Normed Space"
"Undergraduate Research
Experiences"
"Gronwall Inequalities for Weak Solutions of Nonlinear Systems with Applications to the Navier-Stokes Equations"

March 3-4, 1995

Title
"Constructing Unramified Abelian Extensions"
"On the Solution of a first Order Differential Equation"
"Multidimensional Volumes, XSimplices and Convexity in Banach Spaces"
"Factors that influence the performance and participation of AfricanAmericans"
"Assessment of attitudes towards technology and Calculus reform"
"The relations of standardized test scores and GPA's of college students"
"On Certain Types of Polynomials"

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|  | Michael Parker |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | *Bharucha-Reid Lecture |  |  |  |  |  |  |  |  |
|  | Ronald Mickens |  |  |  |  |  |  |  |  |

4. Tuskegee University; Tuskegee, AL

Name
John Bales
Zephyrinus Okonkwo
Anjali Datta
Bonita Lawrence
Gerald Agbegha

## *Bharucha-Reid Lecture

Teresa Edwards

Institution
Tuskegee University Alabama State University

Tuskegee University
NC Wesleyan College
Johnson C. Smith Univ.

Spelman College

Title
"Closed products for Vector Spaces" "Stability of Stochastic Functional Differential Equations"
"Differentiation of Solutions of Boundary
Value Problems with respect to Boundary Matrices"
"Optimizing Autocarrier Loading"
"A maximum cut heuristic for the no-split-demand ring loading problem"


## R. NAM'S BHARUCHA-REID LECTURES

The Albert Turner Bharucha-Reid Lecture series was inaugurated in 1994 during NAM's year-long "Twenty Fifth Year Observance." The inaugural lecture was given by Professor Tepper Gill of Howard University who had written his Ph.D. dissertation under the direction of Professor Bharucha-Reid. The Lecture is to be given annually at the Faculty Conference on Research and Teaching Excellence.

| Year | Speaker | Lecture Title | Location | Date |
| :---: | :---: | :---: | :---: | :---: |
| 1999 | Dr. William Massey | "Industrial Perspectives on Mathematics" | Washington, DC | Mar. 19, 1999 |
| 1998 | Dr. Dennis Davenport | "Sub-Semi Groups of Beta-N" | Memphis, TN | Mar. 21, 1998 |
| 1997 | Dr. Teresa Edwards | "A Maximum Cut Heuristic for the No-Split Demand Ring Loading Problem." | Tuskegee, AL | June 20, 1997 |
| 1996 | Dr. Ronald Mickens | Analysis of the WCM Oscillator ODE | Norfolk, VA | March 22,1996 |
| 1995 | Dr. Llayron L. Clarkson | "On Certain Types of Polynomials." | Houston, TX | Mar. 3, 1995 |
| 1994 | Dr. Tepper Gill | "Gronwall Inequalities for Weak Solutions of Nonlinear Systems with Applications to the Navier-Stokes Equations" | Atlanta, GA | April 22, 1994 |



## NAM - MAA David Blackwell Lecture <br> NAM - MAA David Blackwell Lecture

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## About The National Association of Mathematicians (NAM)

The National Association of Mathematicians, Inc., NAM, was founded in 1969 in New

 the years, the mission and purposes have been articulated in various expressions. state the mission and parposes as they are articulated today:

1. The promotion of excellence in the mathematical sciences and
2. The promotion of the mathematical development of under-
represented American minorities.

The mission and associated purposes of NAM lead NAM to several major specific goals which are articulated in programs and activities sponsored by NAM annually in winter, spring, summer and fall. Moreover, NAM publishes a newsletter quarterly publicizing its programs and activities. NAM hold its National meeting during the joint winter Mathematics Meeting each ycar. It will observe its $30^{\text {th }}$ anniversary in January 1999 in San Antonio, Texas.

To receive NAM's Newsletter, get a membership application and learn of other
activities of NAM, one may contact NAM as follows:
NAM, Box 959, Elizabeth City State Univerity, Elizabeth City, NC 27909
ABSTRACT: A network is commonly used to model any system of discrete objects including communications systems, transportation systems, social and

 psychology to make important features of the system immediately recognizable.
 terms of networks and then to render the networks in a form that enables users
to perceive significant patterns or items of information.
Network visualization is closely related to the growing field called "graph drawing" where algorithms are being developed that automate layout generation. There is no simple definition of the "niceness" of a drawing. A variety of parameters must be optimized to measure this, including the number of bends in edges, number of edge crossings, and node placement. Further, one might like to draw the network so that the points in a cluster appear physically close. In practical applications, weights are associated with the nodes and edges to describe any attributes of the corresponding objects and their relationships. In an interactive computing environment certain properties of the drawing could
 for drawing infinite graphs and methods for identifying networks that are incomprehensible.
Basically, how we visually present a network can make a large difference in our ability to understand its workings, improve its functioning, and enhance decision making. This talk focuses on the many challenging questions that arise
in this field.

## presenter: Melvin Currie

Currently Melvin Currie holds the position of Mathematician at the National Security Agency, since 1990. Melvin R. Currie received the B.A. from Yale University in 1970 and worked as an economic analyst at the headquarters of Gulf Oil. Currie received the Ph.D. in Mathematics from the University of Pittsburgh in 1983. From 1983 to 1986, Dr. Currie was an Assistant Professor of Mathematics at Auburn University. From 1986 to 1990, Assistant Professor of Mathematics at the University of Richmond. He has published research is in the area of metric spaces but has recently begun to cultivate his long-running analytic number theory, has had the good company of Donald $\mathbf{J}$. Newman, Newman having in 1996 become a member of the Agency branch that Currie supervises. For further details you may wish to view his web-site. http://www.caam.rice.edu/-nated/

## About David Blackwell - The Honoree

David Blackwell currently lives in Berkcley, California, where he is still active as a scholar, even though he retired a few years ago from the University of California at Berkeley as a distinguished professor of Mathematics and Statistics., He joined the (Wash., DC), one year at Stanford, one year at Clark College, now Clark-Atlanta University, one year at Southern University, Baton Rouge, Louisiana and one year at the Advanced Study Institute, Princeton, New Jersey,

Born April 19,1919 in Centralia, Illinois, David Blackwell spent ten years there in public schools. At the age of sixteen he entered the University of lllinois in Champaign-Urbana in 1935 where he received his A.B. degree in 1938, his A.M. in 1939 and his Ph.D. in 1941; all his degrees are in mathematics. At the age of 22 he had earned a Ph.D. in mathematics and had been awarded a Rosenvald Fellowship to attend the Advanced Study Institute. This was the beginning of his more than fifty professional years as a world-class mathematician.

While at Howard University David Blackwell distinguished himself as an excellent teacher, an able leader (department chair, 1947-1954) and a very productive scholar, publishing more than twenty papers during his tenure there. When he joined the faculty at Berkeley, these characteristics became even more manifested. At Berkeley, and worldwide, he was recognized as a distinguished scholar and gifted teacher. He chaired the Department of Statistics (1957-61) and he published an additional 50 -plus papers
(a total of 80 publications prior to retirement).

His professional activities as a scholar brought him widespread recognition and acclaim. He has received twelve honorary Doctorate of Science degrees from twelve institutions: Harvard, Yale, University of Illinois, Howard University, Carnegie-Mellon, University of Southern California, Michigan State, Syracuse, Southern Illinois, University of Warwick, National University of Lesotho, and Amherst College. He has been selected president: Institute of Mathematical Statistics, president: International Association for Statistics in the Physical Sciences, president of the Bernoulli Society, Vice President of the International Statistical Institute, Vice President: American Statistical Association, and Vice President of the American Mathematical Society, along with many other positions and honors. Two of the highest honors bestowed upon him have been his election to the National Academy of Science (first and only African-American Aditionally he bolds membership in num being a life member of NAM.

## S. NAM'S BLACKWELL LECTURES

The David Blackwell Lecture Series was inaugurated by the honoree at the 1994 Joint Summer Meeting in Minneapolis, Minnesota On August 16, 1994. Dr. David Blackwell is Professor Emeritus, University of California Berkeley.

| Year | Speaker | Lecture Title | Location | Date |
| :---: | :---: | :--- | :--- | :--- |
| 1999 | Dr. Melvin Currie | "Wide Open Spaces" | "Providence, RI | July 31, 1999 |
| 1998 | Dr. Nathaniel Dean | "Network Visualization" | Toronto, CA | Jan. 17, 1998 |
| 1997 | Dr. Fern Y. Hunt | "Fractal Dimensions, <br>  <br> Peano-Like Curve" | Atlanta, GA | Aug. 3, 1997 |
| 1996 | Dr. Johnny L. Houston | "The No-Three-In-A- <br> Line Problem" | Scattle, WA | Aug. 11,1996 |
| 1995 | Dr. Donald St. Mary | "Computational Ocean <br> Acoustics" | Burlington, VT | Aug,, 1995 |
| 1994 | Dr. David H. Blackwell | "Large Derivations of <br> Martingales" | Minneapolis,MN | Aug. 16,1994 |

## T. NAM'S ANNUAL UNDERGRADUATE MATHFESTS

## Site Locations - Planned Site Locations

Geographically, NAM is organized by regions. The undergraduate MATHFest will be held in a different region each year at an institution in that region which has requested to be the host institution.

Region A<br>Southeast/West

Alabama<br>Georgia<br>Florida<br>South Carolina<br>California<br>Puerto Rico<br>Virgin Islands<br>Gaum<br>All other USA States/Territories (not listed in another region)

## Region B

Mid-Atlantic
North Carolina
Virginia
District of Columbia
Maryland
Delaware
New Jersey
West Virginia
Pennsylvania
New York

Region C
Midwest/Southwest
Arkansas
Louisiana
Mississippi
Oklahoma
Tennessee
Kentucky
Texas
Ohio
Illinois

Undergraduate MATHFest
Location of Site By Years

| $\underset{* * * * * * *}{\text { Year }}$ | Event \# | $\underset{* * * * * * * *}{\text { Region }}$ | $\xrightarrow[* * * * * * * * * * * * * * * * * * * * ~]{\text { Host Instition }}$ | $\underset{* * * * * * * * * * * *}{\text { City - State }}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1991 | I | B | На |  |
| 1992/93 | II | A | Spelman College | Atlanta, GA |
| 1993 | III | C | Southern University | Baton Rouge, LA |
| 1994 | IV | B | NC AT\&T State University | Greensboro, NC |
| 1995 | V | A | Clark Atlanta University | Atlanta, GA |
| 1996 | VI | C | Xavier University | New Orleans, LA |
| 1997 | VII | B | Elizabeth City State University | Elizabeth City, NC |
| 1998 | VIII | A | Benedict College | Columbia. SC |
| 1999 | LX | C | Texas Southern University | Houston, TX |
| 2000 | X | B | Morgan State University | Baltimore, MD |
| 2001 | XI | A | Florida A\&M Univ. | Tallahassee, FL |
| 2002 | XII | C | TBA | TBA |

## GENERAL ANNUAL CONFERENCE FORMAT for Undergraduate MATHFests

Final planning for Undergraduate MATHFest will be conducted during the summer preceding the Fall Conference. However, we present here an outline of the general format that will be used as a general guide for finalizing the program each year.

GENERAL PROGRAM OUTLINE
(TENTATIVE)


## U. INVITED SPEAKERS - UNDERGRADUATE MATHFESTS

Undergraduate MATHFest II; Spelman College; Atlanta, GA; March 18-20,1993

| Name | Institution | Title of Presentation |
| :---: | :---: | :---: |
| Dr. Danielle Carr | New York University | "Mathematical Questions in Axonal Transport" |
| Dr. Nathaniel Dean | Bell Laboratories | "Research Problems in Telecommunications" |
| Dr. Johnny Houston | Elizabeth City State Univ. | "Some Pioneers in Scholarship: Underrepresented Professionals in the Mathematical Sciences, 1865-1990" |
| Dr. Adermi Kuku | University of Ibadan/Nigeria | "Mathematics as a Universal Language" |
| Dr. Iris Mack | Associated Technologists | "From Space Engineering to Financial Engineering" |
| Dr. Wanda Patterson | Spelman College | "Geometry of Banach Spaces" |
| Dr. Freda Porter-Locklear | Pembroke State University | "Hyperbolic Difference Equations" |
| Undergraduate MATHFest III; Southern University, Baton Rouge, LA; October 21-23, 1993 |  |  |
| Name | Institution | Title of Presentation |
| Dr. Patricia Beaulieu | Univ. of S.W. Louisiana | "Induced Representations" |
| Dr. Benjamin Martin | Spelman College | "Using Mathematics to Solve Real World Problems" |
| Dr. Geraldine Darden | NCR/AT \& T Company | "Working Through Networks" |
| Dr. Johnny Gills | Ford Aerospace/ Loral Space Systems | "Reliability Analysis at NASA" |
| Dr. Theodore Hatcher | AT \& T Laboratories | "The Career of a Semi-Mathematician" |
| Dr. Duane Cooper | Univ. of Maryland/ College Park | "Neural Networks and Function Learning" |
| Dr. Stella Ashford | Southern University | "Some Attributes of Prime Numbers" |
| Dr. Donald St. Mary | Univ. of Massachusetts/ "Fu Amherst | Numbers" |
| Undergraduate MATHFest IV; NC A \& T State Univ.; Greensboro, NC; October 13-15, 1994 |  |  |
| Name | Institution | Title of Presentation |
| Dr. Melvin Currie | National Security Agency | "Mathematical Applications at NSACryptography \& Others |
| Dr. William Fletcher | NC Central University | "Structure Theorems for Algebra Relative to Their Radicals" |
| Dr. Melvin Heard | Univ. of Illinois/Chicago"Dynamical Systems" |  |
| Dr. Wendell Jones | NC A \& T State University | "What Are Your Goals for the Future?" |
| Dr. Carolyn Mahoney | California State University | "The Unit Distance Graph Problem" |
| Dr. Marva Moore | GTE Laboratories | "Statistics Research and Development at GTE Laboratories" |
| Dr. J. Ernest Willkins, Jr. | Clark-Atlanta University"Rea 206 | Zeros of Random Polynomials" |

Undergraduate MATHFest V; Clark-Atlanta University; Atlanta, GA; October 26-28, 1995

| Name | Institution | Title of Presentation |
| :--- | :--- | :--- |
| Dr. Patty Anthony | National Security Agency | "Some Applications of Coding Theory" |
| Dr. Earl Barnes | Spelman College/GA Tech | "Eigenvalues and Graph Coloring" |
| Dr. Nathaniel Dean | BDM Corp./XEROX Corp. | "Clustering Algorithms in Graph Theory" |
| Dr. Henry Gore | Morehouse College | "Perfect Sets" |
| Dr. Abdulalim Shabazz | Clark-Atlanta University | "A Past to Cherish, A Future to Fulfill" |
| Dr. Frances Sullivan | Clemson University | "Some Interesting Ideas in Discrete |
|  |  | Mathematics" |

Undergraduate MATHFest VI; Xavier University; New Orleans, LA; October 24-26, 1996

| Name | Institution | Title of Presentation |
| :--- | :--- | :--- |
| Dr. Henry Hardy | Southern Univ./New Orleans | "A Past to Cherish, A Future to Fulfill" <br> Dr. Isom Herron |
| Renssclaer Polytechnic Inst. | "The Fluid Motion" |  |
| Ms. Oneaka Mack-Humphrey | National Security Agency | "Statistical Application in Biometrics" |
| Dr. Freda Porter-Locklear | Pembroke Waste Collections | "Measuring National Bioattenuation of <br> Ground Water Contaminates" |
| Dr. Bonita Saunders | National Inst. of Standards | "Mathematical Modeling and Adaptive <br>  <br> \& Technology |
| Coordinate Systems for Physics and <br> Engineering Applications" |  |  |
|  | Xavier University | "New Matrix Composition Laws and <br> Dru Dev Sharma |
|  |  | Applications-Coding Theory and <br> Combinatorics" |

Undergraduate MATHFest VII; Elizabeth City State Univ.; Elizabeth City, NC; October 23-25, 1997

Name
Dr. John W. Alexander
Dr. Gloria Hewitt
Dr. Johnny Houston
Dr. Bernard Nestor
Dr. Rodney Wallace

Institution
Metropolitan College
Univ. of Montana/Missoula
Elizabeth City State University
National Security Agency
NCR Corporation

## Title of Presentation

"Some Intriguing Activities in Mathematics"
"The Third Hardest Thing"
"Some Results and Problems in Discrete and Computational Geometry"
"Classical Orthogonal Polynomials"
"Examples In Using Mathematics To Solve Real-World Computer System Problems"

Undergraduate MATHFest VIII; Benedict College; Columbia, SC; October 21-23, 1998

| Name <br> Dr. Louis Dale | Institution <br> Univ. of Alabama/Birmingham | Title of Presentation <br> Monic-Free Ideals in a Ponic and <br> "Tutorial on Fuzzy Logic, Sets and Semi-Ring" |
| :--- | :--- | :--- |
| Dr. Afi Harrington | National Security Agency | Sustems" <br> "A Legacy of Excellence: Bell Lab |
| Dr. William Massey | Bell Laboratories | "Athematical Science - African-Americans" <br> Dr. Christine McMillan <br> Dr. Elaine Terry |
| "Control Theory" |  |  |

## Undergraduate MATHFest IX; Texas Southern University; October 21-23, 1999

Name
Dr. Darry Andrews

Dr. Llayron Clarkson

Dr. Nathaniel Dean

Dr. Jonathan Farley
Dr. Dawn Lott-Crumpler

Dr. Bernard Nestor

## Institution

Lucent Technologies

Texas Southern University

Rice University

Vanderbilt University
New Jersey Inst. of Tech.

National Security Agency

Title of Presentation
"The Role of a Mathematician in Software Development at Lucent Technologies"
"On Your Destiny as a Professional in the Mathematical Sciences"
"Clustering Algorithms and Graph Coloring"
"The Theory of Ordered Sets"
"Optimal Patterns for Suturing Wounds for Arbitrary Configurations: Finite lement Techniques"
"Divisible Linear Recurrence Sequences and Primality Testing"

## V. NAM's J. Ernest Wilkins Lectures

During Undergraduate MATHFest IV, NAM established the J. Ernest Wilkins, Jr. Lecture. Prof. Wilkins gave the inaugural J. Ernest Wilkins, Jr. Lecture at NC A \& T State University in Greensboro, NC, during Undergraduate MATHFest IV on Friday, Oct. 14, 1994. This lecture is to be given annually at Undergraduate MATHFest.

| Year | Speaker | Lecture Title | Location <br> Dr. Richard Tapia | "Historical Development <br> of the Mathematical and <br> Computational Sciences" |
| :---: | :--- | :--- | :--- | :--- |

## W. NAM'S FIVE YEAR STRATEGIC PLAN, 1995-1999

## INTRODUCTION

This ycar (1994) marks NAM•s $25^{\text {th }}$ ycar as a viable professional organization in The Mathematical Sciences. This is a significant milestone for both the organization and the Mathematical Sciences Community. NAM's past is an illustrious one. So many people have contributed in so many different ways to bring NAM to where it is today. Yes, NAM has an outstanding past to cherish. As NAM embarks upon its second quarter century of existence, The Board of Directors, indeed, the entire organization, plans to use the legacy of the past as the foundation on which a more formidable organization will be established to meet the challenges of the future.

There is no doubt that there is as great or a greater nced for NAM today as there was in 1969 when NAM was first founded. The challenges that NAM and the Mathematical Sciences Community face today are both real and awesome, especially as they relate to under-represented Amcrican minorities. NAM as a professional organization in the Mathematical Sciences, with a large portion of its membership being under-represented American minorities, needs to provide even greater services and impacts in the future.

This Strategic Plan builds upon and extends the long range plan that was begun by NAM in 1969. Much has occurred since 1969 to affect the Mathematical Sciences environment in which NAM operates. These include a broader mission as articulated at NAM's Tenth Anniversary Celebration in Boulder, CO in 1979; NAM's Twentieth Anniversary Celcbration in 1990 in Louisville, KY; NAM's Twenty-fifth Anniversary Celebration in 1994 in Cincinnati, OH; the establishment of NAM's National Office in Elizabeth City, NC at Elizabeth City State University in 1990. The establishment of the SUMMA Office by MAA and the Regional and National Conferences: Making Mathematics Work for Minorities. Other activities include the inclusion of NAM as an official member of CBMS, the recognition and respectability of NAM in the mathematical sciences community at large, and the establishment of the Mathematical Sciences Board at the National Academy of Science. Another impact has been the publishing of several major reports during the past decade: Everybody Counts, Curriculum Evaluation Change, Renewing U.S. Mathematics: A Plan for the 1990s, and Moving Beyond Myths; and Revitalizing Undergraduate Mathematics. These and other associated efforts reflect the urgency of our current times for promoting the mathematical development of under-represented American minorities, part of the mission of NAM.

## MISSION AND PURPOSES

The original charter of NAM declared the mission and purposes of the National Association of Mathematicians, Inc., (NAM). The mission and purposes have been articulated in various expressions over the years. However, the fundamental mission and purposes have remained the same. We now state the mission and purposes as they are articulated today.
"The National Association of Mathematicians, Inc. (NAM) is a non-profit professional organization in the mathematical sciences with membership open to all persons interested in the mission and purposes of NAM which are:

## Promoting Excellence in the Mathematical Sciences and Promoting the Mathematical Development of Under-represented American Minorities.

This mission and associated purposes lead to the following specific major goals of NAM:

- To engage in activities, projects, programs, conferences, workshops, seminars, ctc. that are designed to inspire, motivate, promote, and assist persons of all ages to seek, embark or maintain an active interest/carcer affinity in some area (s) of the mathematical sciences;
- To identify and seek viable solutions to problems relevant to the education of all students (at all levels) in the mathematical sciences;
- To promote and assist in the continued professional development of practicing mathematical scientists and educators, especially under-represented American minorities:
- To support the continued development of excellence in teaching and curriculum enhancement in the mathematical sciences, especially at HBCU/MI's;
- To advocate, promote and support research in the mathematical sciences, especially for underrepresented American minorities;
- To increase the mathematical sciences community and general public's awareness of issues of importance in areas of the mathematical sciences; especially those that are of great interest to underrepresented American minorities;
- To annually produce various publications about the affairs of NAM and about the status of underrepresented American minorities in the mathematical sciences;
- To develop and maintain databases regarding baseline data on mathematical professionals and students who are under-represented American minorities; and
- To solicit and aid in the soliciting of funds for the realization of the aforementioned goals."

The mission, purposes, traditions and general goals of NAM lead to six major program goals toward which most activities of NAM are aimed: mathematics education, professional development, scholarly productivity, students, databases, and public policy. These goals express the mission of NAM in pratical terms:

## PROGRAM GOALS:

- MATHEMATICS EDUCATION

Stimulate active learning, promote effective teaching, and encourage appropriate and fair assessment in the mathematical sciences for all persons.

## - PROFESSIONAL DEVELOPMENT

Foster mathematical professional development, especially for under-represented American minorities.

- SCHOLARLY PRODUCTIVITY

Encourage research and scholarly productivity among all mathematical professionals, especially underrepresented American minorities

- STUDENTS

Enhance the interests, talents, and achievements of all individuals in the mathematical professionals, especially under-represented American minorities.

- DATABASES

Establish, maintain, and constantly update current and accurate databases on under-represented American minorities.

- PUBLIC POLICY

Influence societal, institutional and public policy through effective advocacy regarding the needs, uses and importance of the mathematical sciences for all persons in our society.

In addition to the program goals that directly support NAM's mission, other goals are necessary for effective and efficient operations of NAM. These operational goals enable NAM to remain viable, to work effectively toward its mission, and to carry out its program goals:

## OPERATIONAL GOALS:

A. ORGANIZED INSTITUTIONAL, STATE AND AREA REPRESENTATIONS

Strengthen local opportunities for NAM members for leadership and influence.
B. REGIONAL AND SPECIAL INTEREST REPRESENTATION ON NAM'S BOARD

Keep the scope of NAM's Board on local, regional, national and international issues and activities.

## C. PUBLICATIONS

Produce quality exposition of mathematics for students, faculty, professionals, and the public as well as eradicates myths, stereotypes, and misrepresentations about mathematics and under-represented American minorities interest and involvement in the mathematical sciences.
D. GOVERNANCE

Enhance the effectiveness of good management, good communication and strong bonding at all tiers of NAM's organizational structural.

## E. MEMBERSHIP

Expand NAM's membership to include all who have a professional stake in making mathematics work for all citizens of the United States of America.

## F. FINANCE

Solicit and enhance financial support for NAM's established programs and activities as well as for new and special ones. Moreover, exercise effective management and investment of NAM's Permanent and Temporary Funds to increase NAM's Endowment.

## REFLECTIONS <br> During NAM's $\mathbf{2 5}^{\text {th }}$ Year

Over the past twenty-five years (1969-1994), NAM has developed itself into a very viable non-profit professional organization in the mathematical sciences. The insights and plans of the many persons who have made valuable contributions to the birth and growth of NAM have been both visionary and professionally sound. For years, many of the goals and objectives of NAM have been waiting to be brought to fruition. As time has marched onward, more and more of these programs and operational goals of NAM have become a reality. During NAM's $25^{\text {th }}$ Year Observance (1994), the current Board of Directors has made the commitment to bring to fruition all the major goals and objectives of NAM and to plan and embark upon new ones over the next five years. It is the resolve of NAM's current Board of Directors (1994) to further develop NAM as an organization to a level unparalleled in its history and comparable to that of any other Non-profit professional organization in the mathematical sciences.

As an initial effort to achieve these challenging efforts, the current Board of Directors of NAM hereby outlines projected programs, activities, and initiatives in this five-year plan (1994-99) that it anticipates reviewing and updating annually.

It is the Board's highest resolve that this five-year plan reflects the valuable contributions and continuity of the past, addresses the needs of the present, and outlines visionary actions to meet the challenges of the future. The five-year plan will now be presented in detail:

## A FIVE-YEAR PLAN

The major portion of this Strategic Plan consists of a series of objectives and proposed initiatives arranged under each of the program and operational goals. The proposed initiatives offer special opportunities to advance the mission of NAM at this particular time. They represent choices to be made of new priorities that will influence the nature and effectiveness of NAM's work well into the early years of the next century and specifically for the next five years, 1994-1999.

Determining priorities among the various initiatives is a responsibility of the Board of Directors and the NAM staff. The specific responsibility for developing, refining, and implementing particular initiatives rests primarily with the Standing Committees of NAM.

## PROGRAM GOALS

## M. MATHEMATICS EDUCATION

Goal: Stimulate active learning, promote effective teaching, and encourage appropriate assessment in the mathematical sciences.

## Responsibility: Service/Special Projects Committee, Programs Committee, Region A, Region B,

 Region C Committees.
## Objectives:

- View and critique national guidelines for primary, secondary, undergraduate, and graduate programs in the mathematical science dealing with curriculum, teaching, and evaluation.
- Foster widespread implementation of recent \{approved by NAM $\}$ recommendations for teaching, learning, and assessment of undergraduate mathematics at all levels.
- Stimulate and help strengthen college and university departments in the mathematical sciences, especially at $\mathrm{HCBU} / \mathrm{MI}$ 's.
- Support implementation of \{approved by NAM] standards for effective mathematics preparation of prospective teachers at all levels
- Encourage additional studies and research on effective teaching, learning, and assessment, especially those that relate primarily to under-represented American minorities.
- Encourage effective and equitable means of assessing student performance and abilities.
- Stimulate and encourage programs which foster mathematics investigations and research experiences for students at the primary, secondary, undergraduate, and graduate levels.
- Foster quantitative literacy for all students at all levels.

Education in mathematics involves learning to reason mathematically, acquiring knowledge of mathematical theories and methods, and developing skills in applying mathematics. In the complex world of the twenty-first century, more Americans; especially an increasing percentage of the under-represented American minorities, will be challenged to know more mathematics, and to make more applications of mathematics.

As a larger percentage of the American workforce becomes made up of under-represented American minorities, the greater is the need for the revitalization of mathematics education. The dramatic changes in school mathematics envisioned in the NCTM Standards require totally new preparation for the next generation of teachers of school mathernatics. The focus is on making students active learners so they can in the future become active, productive users of mathematical in their own lives. These changes require re-thinking the preparation of future teachers of mathematics at all levels, especially for the teaching of under-represented American minorities.

The expanding role of mathematics and its applications make continuing mathematics education essential for all mathematicians, whether they are inside or outside academia. Those teaching mathematics and those pursuing non-academic careers need to share their educational experiences with each other to properly frame the educational agenda for students, inside and outside the classroom. Building quality programs and departments in the mathematical sciences is the task of the broad mathematical sciences community. Over the next five years, through a variety of efforts, NAM should encourage departments to meet the "Guidelines for Programs and Dcpartments in the Undergraduate Mathematical Sciences," developed by the MAA and endorsed by other professional mathematically-based organizations. NAM must play a leadership and advocacy role in these changes in mathematics educations, at all levels.

Follow-up efforts, beyond existing reports, are needed to encourage change in teaching, in the preparation of teachers for the NCTM Standards, and in the use of technology. Changes are also needed in the way we teach, giving students a more active role in the learning process. As changes occur, continued attention needs to be devoted to assessing student learning in courses and programs and using the result in program evaluation.

## Initiatives:

- Document What Works. Continue with Undergraduate MATHFest which has been successful in encouraging competent mathematics minority undergraduates to pursue a terminal degree in the mathematical sciences. Produce a report for the mathematics community describing other highly successful undergraduate mathematics programs. Include programs that enhance recruitment and retention of mathematics majors; programs that prepare a substantial number of students cffectively for school teaching; programs that are successful in preparing students for graduate school: programs that particularly cffective in attracting, and addressing the needs of, groups traditionally under-represented in mathematics: and programs that have distinguished themselves in providing research experiences for undergraduates. A part of this effort should be to assist people to document their own growth and effectiveness. A primary measure of successful programs should be assessments of what students learn and how well they are able to use that learning. Examples developed in this initiative can be used to strengthen NAM programs in support of department chairs.
- Teacher Evaluation. Work with AAHE, MAA and MSEB to document more sophisticated ways of evaluating teaching. The Report of the JPBM Committec on Professional Rccognition and Rewards speaks to the need to reward system, but there is widespread dissatisfaction with the current use of student evaluations. Both education about existing methods of evaluation and development of new methods are needed
- College Teacher Preparation. Identify and foster graduate programs in the mathematical sciences especially at HCBU/MI's, in depth as well as in breadth, that are especially effective at preparing students to teach. As part of this initiative, NAM developed special programs aimed at graduate students planning careers in college teaching, e.g., NAM graduate students chapters: a NAM graduate students Newsletter; a graduate fellow mentoring program identifying advanced graduate students and established mathematicians to serve as mentors and role models; and guidance for depariments seeking to assure mathematical breadth of students in doctoral programs
- Elementary and Secondary Teacher Preparation. Inform mathematical sciences departments especially at HCBU/MI's more clearly of the urgency for change in teacher preparation, Encourage their efforts in designing teacher preparation programs that are grounded in the philosophy of the NCTM"s Professional Standards for Teaching Mathematics and MAA's "A Call for Change." Provide national visibility for exemplary effective programs in NAM's publications
- Technology in Classroom. Provide leadership to the mathematical community in the use of new technology-based mathematics classroom materials. NAM should publicize and critique the cost of technology-based mathematics classrooms, the changes in content, the effects of technology on the definition of correct mathematical conduct, and the comparison to traditional methods. Studies may include pilot testing at selected colleges and universities.
- Applied Mathematical Needs of Undergraduate Students. Purpose changes in the content and teaching of course in the mathematical sciences to reflect better the ways mathematics is used in different disciplines and industrial settings. Develop strategies to engage the non-academic mathematicians in shaping new curricula for future needs in mathematics-dependent fields. Collect data on NAM members employed in government, corporate, or small companies about work requirements and mathematical prerequisites.
- Educational Research. Encourage research and studies to determine how to be effective in teaching, learning, and assessment. Although many in the mathematics community are embracing the ideas of change in mathematics education, there is much to be learned about the effects of various approaches to change and how to effectively implement change.
- Computer Science. Conduct a study of the state of computer science education at the collegiate level, possibly in cooperation with the Association of Computing Machinery (ACM). Computer Science is an increasingly important and popular subject of study in the mathematical sciences. Some of the issues to be addressed are the curricular impact of Computer Science on the mathematical science majors and the personnel issues that need to be resolved for departments to do justices to the teaching of Computer Science, especially from an application perspective.


## B. PROFESSIONAL DEVELOPMENT

## Goal: Foster professional development, and a spirit of association among mathematical scientists

## Responsibility: Publications - Publicity Committee and Programs Committee, Region A,

 Region B, Region C Committees.
## Objectives:

- Encourage mathematics faculty to participate regularly in significant professional development activity.
- Strengthen the role of NAM meetings in professional development and in fostering a sense of community among mathematical scientists.
- Convey new mathematics to practitioners and new mathematical practice to mathematicians.
- Enhance use of electronic communication for scholarship, professional development, and fostering a sense of community among mathematical scientists.
- Provide programs in which faculty can learn about new pedagogical approaches.

The rapid pace of change-in technology, in revised perceptions of excellence in teaching, in expanding frontiers of mathematics faculty and mathematical scientists in industry to engage in broad-ranging, carcer-long professional development. Increasing demands on faculty require continued development in many dimensions of professional life that go far beyond traditional responsibilities. NAM as the Association devoted primarily to increasing the participation of American minorities in the mathematical sciences bears responsibility for planning and promoting activities that support this renewed sense of scholarship and professional responsibility and has an important role in informing persons about what resources are available to help with teaching at all levels.

## Scholarly Development

- Provide multiple forms for exposition and dissemination of mathematics.
- Encourage professional cooperation among different NAM constituencies (primary and high school teachers, college and university professors, other mathematicians and administrators).
- Encourage professional cooperation among different NAM constituencies (primary and high school teachers, collcge and university professors, other mathematicians and administrators)


## Initiatives:

- Campus Consultants. Developing a NAM program of school and campus consultants. For example, conduct workshops to prepare consultants; prepare lists of consultants available for specific areas of broad concern (e.g., curriculum, teacher preparation, technology, professional development, electronic services) in consultation with the Committees that are concerned with Math Education: select experienced consultants who can advocate particular new programs (e.g., intervention programs, research experiences for undergraduates, computer laboratories); form teams with balances expertise for colleges and universities who are conducting reviews of their mathematics programs.
- Professional Support for New Ph.D's. In addition to the NAM new Ph.D. Session traditionally held at the Joint Mathematics meetings, establish programs to inform and involve new PhD ©s in education reform. For example: workshops and other special. Events at national or regional meetings; mentoring by senior mathematicians.
- Electronic Services. Promote electronic discussion groups; provide access to electronically stored databases, documents, and archives; and provide links to electronic services offered by other organizations or individuals. Examples: discussion groups on geometry, assessment, multi-culturalism, calculus reform; access to mathematics calendar, NAM reports and NAM committee reports, mathematical software, bibliographies, NAM journal indexes; and links to services provided by the MAA, AMS, SIAM, and the Mathematical Archives. Also, launch a special information campaign to help smaller institutions join the Internet.


## Initiatives:

- Rewards. Promote a broadening of the reward structure. Work with MAA, AMS, SIAM, NCTM and AWM in an active campaign to alert, advise, and assist mathematics faculty, department chairs, deans, provosts, and other higher education administrators in implementing rewards structures reflecting the total mission of schools and departments (teaching, research, scholarship, service to the local community, and services to the broad mathematical community).
- Opportunities for Faculty Professional Development. Identify, publicize, and work to increase opportunities for mathematics teachers and college/university faculty to engage in professional development both in corporations and academia. Examples include summer institutes and mini-courses and holding additional sessions at NAM meetings. Topics should include new pedagogical approaches, assessment, teacher evaluation, the reward structure, and electronic services. An annual report to the membership listing professional development opportunities should be created.


## C. STUDENTS

Goal: Enhance the interest, talents and achievements of all individuals in the mathematical sciences, especially of under-represented American minorities.

Responsibility: Programs, Publications-Publicity, Region A, Region B, and Region C Services- Special Projects Committee.

## Objective:

- Expand the number of people who embrace and participate in the mathematical sciences, especially under-represented American minorities.
- Increase the number who embrace and participate in the mathematical sciences, especially underrepresented American minorities.
- Increase the number of scholarly mathematical publications and convention presentations by underrepresented American minorities.
- Expand the participation of under-represented American minorities in other mathematical sciences societies, associations and organizations.
- Increase the participation of under-represented American minorities in primary, secondary and college level mathematics contests.


## Initiatives:

NAM endorses the concept of life long learning. In this regard the Corporation will endeavor to put in place, mechanisms that will encourage people to continue their study of mathematics throughout their lifetime. Through our programs, newsletter and other vehicles, we hope to simulate and excite people about frontiers of mathematical thought and applicability.

## D. DATABASES

## Goal: Establish, maintain and constantly update current and accurate databases on under-represented American minorities.

Responsibility: Membership, Programs, Publication-Publicity, Region A, Region B, Region C, and Awards-Recognitions Committees.

## Objectives:

- NAM will endeavor to become the established authority on American minorities in the mathematical sciences.
- Expand and refine the network of American minorities in the mathematical sciences.
- Expand contacts with national and local industry.
- Build support mechanisms and communications links for undergraduate and graduate American minority students.


## Initiatives:

NAM intends to build its membership to several thousand by the year 2000. To meet this challenge, comprehensive databases must be developed. Each current member of NAM must take on the responsibility to help strengthen the Corporation by becoming an active recruiter at their institution, in their region, and in their areas of influence.

## E. PUBLIC POLICY

Goal: Influence societal, institutional and public policy through effective advocacy for the importance, use, and needs of the mathematical sciences for all person.

Responsibility: Publications-Publicity, Program, Service-Special Projects, Region A, Region B, and Region C Committees.

## Objectives:

- Enhance the public's awareness of the importance of mathematics in science, engineering and technology as well as in everyday life.
- Increase public awareness that expanded mathematical literacy for the populace is closely tie to national security.
- Increase industry's awareness of the important contributions that can be made by people trained in the mathematical sciences.
- NAM intends to relate and have our mission understood by philanthropic organizations and governmental agencies,
- Establish strategies for sharing information with and obtaining input from local school systems, community colleges and universities.


## Initiatives:

As we move into the $21^{\text {st }}$ century, it will become more and more important for citizens of this nation to be conversant with the language of technology. That language is, of course, mathematics. Currently, only about $7 \%$ of the populace and $2 \%$ of American minorities are practitioners of mathematics bases careers.

We cannot hope to compete with the Pacific countries, Japan and parts of Europe, if we do not enlarge the number of people who can do mathematics. Mathematical mastery will not be a luxury in the coming century, it will be a necessity.

In view of this situation, NAM will explore new strategies that have the potential to educate and enlighten American society with the aim of widening appreciation and thus increasing willingness to study and learn more mathematics.

## OPERATIONAL GOALS

## A. ORGANIZED INSTITUTIONAL, STATE/AREA REPRESENTATIVES

Goal: Strengthen local opportunities for NAM members for leadership and influence.
Responsibility: Executive, Programs, Publications-Publicity, Region A, Region B, Region C Committees

## Objectives:

- Enhance the structure and functioning of NAM regions and areas.
- Build the reputation of region events and activities to the extent that registration/participation increases steadily.
- Establish a standard set of programmatic events to be conducted annually in each region.
- Enlarge the number of Institutional Memberships in NAM.
- Strengthen NAM to the extent that all tiers of the organization function smoothly.


## Initiatives:

With an enhanced, decentralized structure, NAM will be in a position to grow and prosper. As the organization prospers, so will the membership. NAM should become stronger mathematically. This has the potential to open up new opportunities and expand horizons, especially for under-represented American minorities.

## B. REGIONAL AND SPECIAL INTEREST REPRESENTATION ON NAM'S BOARD

## Goal: Keep the focus of NAM broad at the national and international levels.

Responsibility: Legislation-Nomination, Membership, Region A, Region B, and Region C Committees.

## Objectives:

- Identify, on an ongoing basis, potential leaders for NAM's Board.
- Identify, on an ongoing basis, leaders for regional board positions.
- Identify, on an ongoing basis, leaders and participants for regional positions as well as programs and activities.
- Establish a review process for analyzing and refining regional and national systemic problems.
- Establish strategies for recruiting prospective leaders from local school systems, community colleges and universities.


## Initiatives:

The Executive Committee will constantly provide information and planning techniques to the leadership of NAM's regions. The intent is to empower locals to take on more responsibility for programs in the region. By the year 2000, we hope to all regions functioning effectively and with a minimum amount of direction from the national office.

## C. PUBLICATIONS

Goal: Produce quality exposition of mathematics for students, faculty, professionals, and the public as well as eradicates myths, stereotypes, and misrepresentations about mathematics with regards to under-represented American minorities.

## Responsibility: Publications-Publicity, Awards-Recognition, Region A, Region B, Region Committees.

## Objectives:

- Increase the number of American minorities that write and publish mathematical papers.
- Establish a procedure to objectively referee submitted papers and articles.
- Develcp a NAM Mathematic Proceedings and solicit articles on mathematics, mathematics issues, and mathematics education.
- Encourage regions to submit articles about personalities and activities in their locality.


## Initiatives:

The expansion of sophisticated written materials that NAM plans to foster, has the potential to create a more accurate perception of the field of mathematics. Moreover, these writings will also let the nation and the world know about the many talented people that are in the ranks of under-represented American minorities.

## III. Governance

## Goals: Enhance effectiveness of NAM's governance.

## Responsibility: EXECUTIVE COMMITTEE (Pres., Vice Pres., Sec-Treasurer, Exec. Secretary)

## Objectives:

- Restructure functions and meetings of the Board of Directors to increase Board effectiveness in positions of leadership.
- Introduce new NAM leaders to major national policy issues concerning mathematics and mathematics education by having viable activities by NAM, annually, at the national regional, state/area, and institutional levels.
- Making Standing Committees effective advocates for the Strategic Plan of the Association.
- Provide NAM's members with expanded opportunities for service and leadership.
- Implement effective electronic communication within the National Office and between the National office and the various levels of NAM.

NAM has several tiers of responsibility for governance. The Board of Directors has ultimate responsibility for policy and direction of the Association. It meets twice a year, primarily to hear reports and act on recommendations from NAM's Committees.

The Executive Committee "shall review continually the policies and activities of the Association...plan and organize new activities....formulate in broad outline form the programs for meetings and publications, and in general...consider all matters of importance and of interest to the Association."

The Finance Committee "shall receive and administer the funds of the Association, control its properties and investments, make its contracts, and exercise such powers as may be delegated to it by the Board."

The Eleven (11) Standing Committees will carry out much of the work of the Association and recommend action for NAM through the Board of Directors and implement actions approved.

The Association's activities will take place both centrally (from its National Office) and locally within regions/areas/states and institutionally. The Executive Secretary shall have the authority to manage the office of the Association and shall carry out such other duties as may be assigned by the Board. The regional, state/arca, and institutional activities of NAM are under the auspices of the Boards of Directors.

Recent moves to improve governance include the following:

- Revitalization and expansion of Standing Committees, with assignment of Board members to Regional Activities, should enhance communication between committees and the Board. There has also been increased full Board discussion of the important issues facing NAM.
- Greater efforts are being made to bring a broader representation of constituencies to include majority institutions, industry, governmental and community colleges.
- The effectiveness of the revitalizing standing committees will be renewed and evaluated within the next five years. At that time a general review of the organizational structure of NAM will be undertaken.


## Initiatives:

- Program Review. Initiate regular Board review of NAM's programs in relation to goals and priorities in the Strategic Plan. The present forms of some programs may no longer match NAM objectives as well as they once did.
- Increase Board Effectiveness. Conduct a study of the Boards of other organizations and make recommendations on ways to further improve the effectiveness of NAM's Board and Board meetings.
- Leadership Training. Provide opportunities for NAM leaders to become more knowledgeable about the workings of NAM and about the positions of responsibility that they are assuming. Upon election to the Board, each member will be given a specific assignment as a committee chair or vice chair.
- Electronic Service for NAM Leadership. Set up an electronic service for Board of Directors members, State/Area representatives, and committee chairs, designed to keep them well informed about the national affairs of the NAM.


## IV. Membership

Goal: Expand NAM membership to include all who have a professional interest in the mathematical sciences.

## Responsibility: Committee on Membership, Region A, Region B, Region C Committees.

## Objectives:

- Increase individual membership in the NAM to include the diversity of the mathematical sciences community.
- Increase and broaden institutional membership in the NAM to reflect the variety of higher education, business, and industry.
- Enhance efforts to retain members.
- Implement annually an effective membership drive in each region.

In order to support fully the mission of NAM, it is essential to have maximal participation by all of the individuals involved in advancing the mathematical sciences in higher education-students, faculty, and mathematicians from business, industry, and government.

## Initiatives:

- Momentum for Membership. Launch a multi-pronged initiative to shape and strengthen the membership of the NAM. Make efforts to attract more members who are students, non-minoritics, two-year collcge faculty and employees of business, industry, and government. At the same time, work to increase membership of people from groups which have traditionally joined NAM.
- Broaden Institutional Memberships. Launch a special campaign to increase and broaden institutional memberships to reflect the variety of higher education institutions and of non-academic institutions that employ mathematicians. Such a campaign can develop more benefits for institutional members and more involvement with direct appeal to department chairs, deans and industrial employers. Morcover, new markets for publication sales can be developed and particularly by targeting mailings geographically tied to national meeting sites.
- Raise Retention Rates. Develop a strong, systematic program for member retention using special inducements for each segment of membership.


## V. Finance

## Goal: Enhance financial support for current and new NAM programs.

## Responsibility: Finance Committee.

## Objective:

- Work to ensure healthy balance of revenue sources (dues, publications, grants, gifts, endowment).
- Increase net revenue from funded activities, and advertising.
- Create an endowment equal to two years" operating expenses.
- Seek grant support for initiatives that advance major NAM goals and programs.
- Provide budget support for start-up funds and other new initiatives.
- Monitor the financial soundness of all NAM's funds and investments.
- Plan two year budget projections for NAM's General Operations and plan for the securing of revenue to support these budgets.
- Do an internal or external audit of NAM's funds each year or every two years.

NAM has recently launched a planned giving program to encourage estate planning by NAM members and charitable gifts to NAM through bequests, annuities, trusts, life insurance, and other forms of planned gifts that will benefit the donors and NAM.

## Initiatives:

- Endowment. Seek to increase NAM's endowment substantially:
-Identify and cultivate prospective donors;
-Designate special programs or areas (e.g., student activities) to support programs from endowment funds;
-Consider the feasibility of a campaign goal and identify opportunities and potential barriers to reaching that goal; and,
-If deemed appropriate, conduct a national NAM endowment Campaign.
- Develop a Planned Giving Program. Providing prospective donors with additional information and options for special gifts.
- Grant Support for Initiatives. Increase the capacity of NAM to secure grants for major initiatives. Provide committee chairs with up-to-date information (via Handbook, e-mail) on funding programs, hold proposal writing workshops for NAM committee chairs, etc.


## X. NAM'S MILLIONS DOLLAR ENDOWMENT CAMPAIGN, 1999-2000

## "A CAMPAIGN FOR THE PERPETUITY OF NAM"

After two years of planning, NAM launched a "Million Dollar Endowment Campaign." The Campaign will continue during all of 1999 and 2000. The purpose of the Campaign is to develop an endowment or perpetual fund that will virtually guarantee NAM a minimum amount of available financial resources each year for planning and implementing NAM's programs and activities as well as supporting the infrastructure for services to be provided by NAM's National Office. This includes supporting the National Office with a fulltime Administrative Assistant and with summer support for the Executive Secretary; summer support for two (2) interns for one month to do planning specific projects (writing proposals/position papers; planning in details programs/activitics of NAM for various seasons, designing and developing databases, etc.) and to provide a quarterly stipend for NAM's Editor (Newsletter/Annual Proceedings), as well as support for the publication of NAM's Newsletter/Annual Proceedings and other non-funded projects. NAM's next National Office will be located on the campus of Morgan State University in Baltimore, MD effective July 1, 2000.

Funds raised in this Endowment Campaign are never to be spent. Instead, after one year from the end of the Campaign, the interest and dividends earned from investing the principal may be spent for the aforementioned purposes. During its next era, NAM's National Office will be more service oriented for NAM's Board of Directors, NAM's membership, the mathematical sciences community and the general public.

A conservative and safe investment of a Million Dollar Endowment should yield from $\$ 75,000$ to $\$ 100,000$ annually for supporting the aforementioned items.

A viable NAM in its next era will need a minimum of $\$ 100,000$ annually to support infrastructure and planned programs and activities.

The National Association of Mathematicians, Inc. (NAM) has as its fundamental Mission and Purpose:
A. To promote excellence in the mathematical sciences; and
B. To promote the mathematical development of under-represented American minorities.

# NAM's Endowment Campaign Advisory Committee 

Evelyn Boyd Granville, Ph. D., Honorary Co-Chairperson
Clarence Stephens, Ph. D., Honorary Co-Chairperson
J. Ernest Wilkins, Ph. D., Honorary Co-Chairperson
*****************************
John W. Alexander, Jr., Ph. D., Campaign Co-Chair
Johnny L. Houston, Ph. D., Campaign Co-Chair
The full Campaign Advisory Committee consists of members of NAM`s Board of Directors plus fifteen (15) additional mathematical professionals.

For more information about the Campaign or to learn how to make a pledge/contribution, contact: National Association of Mathematicians, Inc. - NAM"s National Office P.O. Box 959; Elizabeth City State University; Elizabeth City, NC 27909

Telephone: (252) 335-3326 Fax (252) 335-3651
E-mail: namoga.unc edu or http://jewel morgan.edu/-nam
Johnny L. Houston, Ph. D., Executive Secretary

## Y. LOCATIONS OF NAM'S NATIONAL OFFICE/HEADQUARTERS, 1972-2000

1. On July 1, 2000, NAM's National Office/Headquarters is scheduled to move to a suite of offices on the campus of Morgan State University in Baltimore, MD under the supervision of Dr. Leon Woodson, NAM's next Executive Secretary.

NAM's National Office (effective July 1,2000 )
Dept. of Mathematics; Morgan State University
Baltimore, MD 21251
Telephone: (443) 885-3776
Fax: (410) 319-4323
E-mail: woodson/Qmorgan.edu or http://jewel.morgan.edu/-nam
2. Currently (1999), NAM's National Office/Headquarters is located in a suite of offices on the campus of Elizabeth City State University in Elizabeth City, NC 27909. This has been the location since July 1, 1990 and will remain the location until June 30, 2000.

NAM"s National Office (until June 30, 2000)
P.O. Box 959; Elizabeth City State University

Elizabeth City, NC 27909
Telephone: (252) 335-3326
Fax (252) 335-3651
E-mail: namajias.ga.unc.edu
3. From 1975-1900, NAM's National Office/Headquarters was on the campus of Atlanta University and its mailing address was P.O. Box 10766, Atlanta, GA 30310.
4. From 1972-1975, NAM’s National Office/Headquarters was on the campus of Morehouse College in Atlanta, Ga under the supervision of Dr. Benjamin Martin, Professor of Mathematics. He was the person who provided leadership in getting NAM incorporated in the state of Georgia as a non-profit organization and as a 501 (c) tax exempt organization with the IRS.
5. Prior to 1972, NAM had no central mailing address or National Office.

For more information about NAM or its Board of Directors, one may contact:
Dr. Robert Bozeman, Secretary/Treasurer - NAM
Dept. of Mathematics, Morehouse College
Atlanta, GA 30314
Telephone: (404) 215-2613
Fax: (404) 589-1661
Email: rbozeman@morchouse.edu

## Z. FIFTY-ONE (51) SIGNIFICANT DATES/EVENTS DURING NAM'S FIRST THIRTY (30) YEARS, 1969-1999

1. January 26, 1969

New Orleans, LA

- A group of seventeen (17) American minority mathematicians assembled to discuss common issues.
- They agree to some ideas and made plans to follow-up and continue an agenda.
- The group selected Johnny L. Houston, Acting President; and Vivienne Mayes, Acting Secretary

2. January 24,1970

San Antonio, TX

- The selection of the group's first Executive Committee: Lillian Bradley, Edward M. Carroll, Frank James, James Joseph, Benjamin Martin, and Irvin Vance.
- Goals: develop a representative organizational structure for the group, identify priority issues and seek financial support for the group.

3. June 19-20, 1970

Washington, DC

- The group's first plenary committee; Frank James was nominated to be president of the group.
- Goals: develop organizational structure and plan first national conference;

4. August 19, 1970

Laramie, WY

- The group selected the name: National Association of Mathematicians (NAM);
- The slated of nominated officers approved (with Frank James as president)

5. January 9-10, 1971

Atlanta, GA

- NAM's first Intermediate Conference of Regional and State Representatives (41)
- Membership drive reported (132 members)
- Frank James delivered first Presidential Address to NAM as a group
- Many plans and assignments were presented and approved; several committees were appointed

6. August 20-21, 1971

Atlanta, GA

- NAM's first National Meeting
- Rogers Newman presents NAM's first scholarly address
- Wade Ellis spoke on problems in mathematics education
- Carl Whitman gave a presentation on computer oriented - mathematics


## 7. January 13, 1972

Atlanta, GA

- NAM was legally incorporated in the state of Georgia


## 8. April 1, 1973

Mail Ballot

- NAM's first national election by mail ballot; persons elected were:
- Theodore Sykes, president (Fisk Univ.); Japheth Hall, vice president (Stillman College)
- Geraldine Darden, secretary-treasurer (Hampton Institute); Eleanor Jones, editor (Norfolk St. Univ.)
- Members-at-Large: Walter Talbot (Morgan St. College) and Frank James (U.- Arkansas/Little Rock)

9. November 2, 1974

- Executive Committee met at Norfolk State University
- NAM's Long Range Plans for the 1970's were outlined

10. January 25-26, 1975

Norfolk, VA

- NAM held it first national (annual) meeting with Washington, DC
- NAM's first national pane Joint Winter Mathematics Meeting of AMS-MAA
- NAM's first national panel was held

11. April 5, 1975

- NAM's Executive Committee was renamed NAM's Board of Directors
- Johnny L. Houston, Savannah State College, was selected as NAM's first active Executive Secretary

12. May 1975

- Japheth Hall,Jr., Stillman College was elected president of NAM

13. January 25-26, 1976

Mail Ballot

- NAM's second national (annual) meeting was held with the Joint Winter Mathematics Meetings

San Antonio, TX

- Two invited scholarly address were given by

Louis Dale, Univ. of Alabama - Birmingham; Japheth Hall, Jr., Stillman Colleges
14. February 1976

Atlanta, GA

- NAM's National Office established at Atlanta University; P.O. Box 10766; Atlanta, GA 30310
- Johnny L. Houston, NAM's Executive Secretary, joined the Atlanta University faculty in Fall, 1975

15. April 1976

- NAM's Restated Article of Incorporation were filed with the Secretary of State in Georgia.

16. May 1976

- Japheth Hall, Jr. resigns as NAM's president
- Samuel Douglas chosen to complete Hall's term


## 17. November 1976

- NAM received Federal ID (Tax Exempt Status)
- NAM began qualifying for Federal Tax Exempt status as a 501(c) non-profit organization

18. August 1976

Washington, DC

- Howard University began implementing a Ph. D. program in mathematics; a first at an HBCU
- This effort was led by James A. Donaldson, Dept. Chair, with assistance from J. Ernest Wilkins, Jr./ others.

19. January 27-28, 1977

Presidency Change
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- NAM held its third National (Annual) Meeting with Joint Winter Mathematics Meetings.
- Raymond Johnson, Howard University, delivers scholarly address.

20. January 7, 1978

- NAM held annual National Meeting with Joint Winter Mathematics Meetings
- Samuel Douglas elected president of NAM
- At Joint Winter Mathematics Meetings NAM, held General membership Meeting.

22. March 30-31, 1979

Boulder, CO

- NAM held Tenth Anniversary Meeting-Conference, supported by a grant from NOAA (secured by Beauregaurd Stubblefield); coordinated by Samuel Douglas and J. L. Houston
- Charles Bell delivered Keynote Address

23. January 3-4, 1980

San Antonio, TX

- NAM held National (Annual) Meeting with Joint Winter Mathematics Meetings and expanded its program.
- The Claytor Lecture was inaugurated - delivered by James Joseph, Howard University.
- Cox- Talbot Address inaugurated - delivered by J. Arthur Jones, Florida A\&M and NSF.


## 24. January 1981

San Francisco, CA

- NAM did not hold a National Meeting with the Joint Winter Mathematics Meetings.
- NAM was preparing its first proceedings (centered around the San Antonio Meeting).

25. January 1982

Cincinnati, OH

- NAM did not hold a National Meeting with the Joint Winter Mathematics Meeting.
- NAM was preparing its first proceedings (centered around the San Antonio Meeting).

26. January 1983

Denver, CO

- NAM did not hold a National (Annual) Meeting, but did hold a General Membership Meeting at the Joint Winter Mathematics Meetings.

27. January 1984

Anaheim, CA

- NAM held a National ( Annual) Meeting with Joint Winter Mathematics Meetings.
- David Blackwell delivered NAM's Claytor lecture.
- Roger Newman was elected president of NAM by mail ballot

28. January 1985

Louisville, KY

- NAM held a National (Annual) Meeting with Joint Winter Mathematics Meetings.
- Albert Turner Bharucha-Reid delivered Claytor lecture

29. January 1986

New Orleans, LA

- NAM held a National (Annual) Meeting with Joint Winter Mathematics Meetings.
- J. Ernest Wilkins, Jr. delivered the Claytor lecture.

30. January 1987

San Antonio

- NAM held a National (Annual) Meeting with Joint Winter Mathematics Meetings.
- NAM's Claytor Session of three (3) 15 minutes presentations was held.

31. January 1988

Atlanta, GA

- NAM held a National (Annual) Meeting with Joint Winter Mathematics Meetings.
- NAM's Claytor Lecture was given by Wade Ellis, Jr.

32. January 1989

Phoenix, AZ

- NAM held a National (Annual) Meeting with Joint Winter Mathematics Meetings.
- James Robinson delivers Claytor Lecture

33. January 1990

Louisville, KY

- NAM held a National Meeting with the Joint Winters Mathematics Meetings each year in the 1990's; Scott Williams delivered the Claytor Lecture
- Johnny L. Houston delivered the Cox-Talbot Address - $20^{\text {th }}$ Anniversary Meeting (one year later than 1989).

34. July 1, 1990

Elizabeth City, NC

- NAM established its National Office at Elizabeth City State University in Elizabeth City, NC.
- Johnny L. Houston Executive Secretary of NAM had joined the faculty of ECSU a few years earlier.


## 35. November 1991

- Hampton University held the first Undergraduate MATHFest

36. January 1992

Hampton, VA

- Gloria Gilmer was the first woman to deliver the Cox-Talbot Address.

37. January 1993

- Fern Hunt was the first woman to deliver the Claytor Lecture.

38. March 1993

- Spelman College hosted Undergraduate MATHFest II,
- Aderemi O. Kuku, President of the African Union was presented with NAM's Distinguished Service

Award
39. October 1993

- NAM Coordinated the first Undergraduate MATHFest;
- NAM has coordinated this conference each year in October in the 1990's.

40. January 1994

- John W. Alexander was elected president of NAM.

41. April 1994

Baton Rouge, LA
San Antonio, TX
Baltimore, MD

- NAM established an annual Recional Atlanta, GA
- NAM established an $\quad$ Thual Regional Conference on Research and Teaching Excellence Gill.

42. August 1994

Minneapolis, MI

- NAM established the David Blackwell Lecture at MAA MATHFest (Summer Meeting).
- Dr. Blackwell gave the inaugural lecture.
- NAM awarded Dr. Blackwell NAM's Lifetime Achievement Award (first).

43. October 1994

- NAM established the J. Ernest Wilkins Lecture at Undergraduate MATHFest
- Dr. J. Ernest Wilkins delivered the inaugural lecture.
- NAM awarded Dr. Wilkins NAM's Lifetime Achievement Award (second)
- NAM revised its By-Laws (1994 Revision)

44. June 1995

Toronto, CA

- NAM awarded Lee Lorch NAM's Lifetime Achievement Award on his eightieth birthday celebration

45. October 1995

Atlanta, GA

- NAM approved a five (5) year Strategic Plan.

46. January 1996

Orlando, FL

- Evelyn Boyd Granville - Marjorie Lee Browne were honored by the establishment of the GranvilleBrowne Session of presenters by recent recipients of the doctorate in a mathematical science.
- Evelyn Boyd Granville receives NAM's Lifetime Achievement Award.

7. January 1997

San Diego, CA

- Charles B. Bell is awarded NAM's Lifetime Achievement Award.
- NAM's Board approved the launching of a Million Dollar Endowment Campaign
- All NAM Board members were approved for a three year term (By-Law Revision, 1997).

48. March 1998

Memphis, TN

- Clarence Stephens was awarded NAM`s Lifetime Achievement Award.

49. October 1998

Columbia, SC

- Johnny L. Houston submitted a letter to the Board about his plans to retire on June 30, 2000.
- Leon Woodson, Morgan State University was selected to be Associate Executive Secretary and is to become the next Executive Secretary - July 1, 2000.

50. January 1999

San Antonio, TX

- NAM held its Thirtieth Anniversary Celebration
- Johnny L. Houston delivered the Cox-Talbot Address and announced his retirement date: June 30, 2000.
- Johnny L. Houston was awarded NAM's Lifetime Achievement Award


## 51. November 1999

- NAM approved, by referendum, to appoint an editor to a three (3) year term with a modest stipend and abolish the election of an editor in the future, beginning January 2000.


## Johney L. Houston, Ph.D.

Houston has held the position of Senior Research Professor in the Department of Mathematics and Computer Science at Elizabeth City State University (ECSU) since 1988. Previously, he served ECSU for four years as Vice Chancellor for Academic Affairs and Dean of the Faculty. Houston received his B.A. degree from Morehouse College [1964], his M.S. degree from (Clark) Atlanta University (AU or CAU) [1966] and his Ph.D. degree from Purdue University [1974]. He also attended the U. of Georgia [Sum-1969] and studied for a year at the Universite de Strasbourg in France [1966-67]. All of his degrees are in the field of mathematics. Moreover. Houston is also a computer specialist and a computational scientist. Prior to his joining ESCU, Houston served as Chair of the Dept. of Mathematical Sciences at (Clark) Atlanta University for six years [1975-81]. Additionally, he taught at Fort Valley St.
 College (GA), Savannah St. College. (GA), Stillman College (AL), and part-time at Purdue U. (IN), Morehouse College (GA), and Morris Brown College (GA). At Fort Valley St. College (University), Houston held an endowed and distinguished chair; he was the Callaway Professor of Computer Science. Houston has served in several capacities as a Specialist in Mathematics and/or Computer Science. These include his position as Executive Secretary of the National Association of Mathematicians (NAM) [1975-2000], a member of the Board of Governors of the Mathematical Association of America (MAA) [1992-95], a member of the Human Resource Advisory Group of the Mathematical Sciences Research Institute (MSRI) [1993-98], as V. Pres. for Information for the Association of Computer and Information Science/Engineering Departments at Minority Institutions (ADMI) [1990-94] and a four (4) years appointment with the National Institute of Health ( NIH ) as a Mathematics/Computer Specialist on NIGMS' MARC Review Committee [1982-86]. He has been a reviewer for the National Science Foundation (NSF), a Consultant for the Southern Association of Colleges and Secondary Schools (SACS), and he has provided professional service for a number of other organizations and agencies. For his contributions and services, he has received several honors and awards; including an endowed annual award in his name at Fort Valley State (University) [1997] and NAM's Lifetime Achievement Award [January 15, 1999]. A very active and productive mathematical/computational scientist and educator (served on 3 doctoral committees, supervised 15 Master theses, supervised 15 undergraduate honor theses. coordinated 15 national conferences and has been the PI/Co-PI for several millions of dollars in grant proposais/projects), Houston holds regular membership in several major professional organizations: AMS, ACM. AWM, NCTM-NC and holds life membership in NAM, MAA and SIAM. In 1996, Houston received the University of NC Board of Governors Teaching Excellence Award. Houston has worked on national projects. in National Scientific Centers and has made over 100 invited scholarly and specialty presentations throughout the USA and abroad. Among other note-worthy accomplishments, he is the author of several publications (including another book of which he is a co-author). Houston is one of NAM's Founders and he is listed in the World Directory of Mathematicians (1994/98), Who's Who in America (1992-93), Who's Who in the South and Southwest (1991), Who's Who in Technology (1989), Who's Who Among Black Americans (1988), Who's Who in Georgia (1982), and American Men and Women of Science (1981), Additionally, Houston speaks/reads two foreign languages. He has traveled extensively throughout the USA (all 50 states), and in 30 foreign countries in Africa, Asia, Europe, N. and S. America and the Carribeans. He has been active in civic and human rights activities; receiving the NC Governor's Award for Outstanding Volunteer Service in 1998. Houston is married to Virginia Lawrence Houston of Macon, Georgia and they have two daughters: Mave Talibra and Kaiulani Michelle. Houston was born in Sandersville, GA (USA) on Nov. 19. 1941; and he spent his high school and college years in Macon/Atlanta, GA; respectively.

# Some Of Johnny L. Houston, Ph.D.; Involvements With NAM 1969 --.-..-.-........ 1999 

- Houston was there in New Orleans on January 26, 1969 when a group of Seventeen (17), founded NAM, others included: Walter Talbot, James Donaldson, Scott Williams, Harriet Walton, Beauregard Stubblefield, Vivieme Mayes, Robert Smith, Richard Griego, Thyrsa Frazier.
- Houston was selected and served as acting president of the group in 1969.
- Houston entered Purdue U. to work on a doctorate degree in mathematics in September 1969; while at Purdue, Houston communicated with Dr. Talbot and others during the early 1970's.
- Houston received a Ph.D. in mathematics from Purdue in August 1974, attended NAM's National meeting in Jan. 1975 (Wash., DC) and was selected as NAM's first and only active Executive Secretary in April 1975 ( $\mathbf{2 5}$ yrs. in position: 1975-2000), based on plans to retire June 30, 2000.
- Houston co-chaired NAM's Tenth Anniversary Celebration in Boulder, Colorado in 1979 with Samuel Douglass (sponsored by NOAA with leadership/arrangement by Dr. Beaurugard Stubblefield).
- Houston co-chaired the Inauguration of NAM's Claytor Lecture and Cox-Talbot Address in 1980.
- Houston successfully encouraged Albert T. Bharucha Reid, David Blackwell, and J. Ernest Wilkins, to give the Claytor Lecture in the Mid-80's, elevating the Lecture to high acclaim.
- Houston led the effort in the adoption of NAM's Undergraduate MATHFest in the early 1990's as NAM's premiere annual research conference for motivating and encouraging undergraduate students to pursue graduate study and seek research careers in a mathematical science; Houston has been the National Coordinator for seven (7) Conferences 1993-1999.
- Houston selected and recommended for the adoption of NAM's current Logo in the early 1990's.
- Houston led the effort to develop and he co-authored NAM's 5-Year Strategic Plan; early 1990's.
- Houston led the effort to revise and he co - authored NAM's 1994-1999 By-Laws Revision.
- Houston led the efforts in the 1990's to establish three Named Lectures for NAM: the David Blackwell Lecture, the J. Ernest Wilkins Lecture and the Albert T. Bharucha - Reid Lecture.
- Houston helped to establish NAM's Annual "Faculty Conference on Research and Teaching Excellence" in the early 1990's.
- Houston led the efforts to establish and name NAM's "Granville-Browne Sessions of Presentations by Recent Recipients of Doctoral Degrees in the Mathematical Sciences" in the 1990's.
- Houston led the effort to establish NAM's Highest Award: NAM's Life-Time Achievement Award.
- Houston led the efforts to establish and annually present NAM's Distinguished Service Award and/or NAM's Award of Appreciation to deserving persons.
- Houston has written in each quarterly edition of NAM's Newsletter for the past several years a biographical - professional profile entitled: "Spotlight on A Mathematician" in which the life and works of an under-represented American minority mathematician are highlighted.
- Houston helped to establish and is co-chair of NAM's Million Dollar Endowment Campaign.
- Houston gave NAM's Cox-Talbot Address at NAM's 20 ${ }^{\text {th }}$ Ann. Meeting; Louisville, KY 1990.
- Houston gave NAM's David Blackwell Lecture in Seattle, WA in 1995.
- Houston gave NAM's J. Ernest Wilkins Address at UG MATHFest VII in 1997
- Houston gave NAM's Cox-Talbot Address at NAM's 30 ${ }^{\text {th }}$ Anniversary Meeting in 1999.
- Houston received NAM's Life Time Achievement Award; Jan. 15, 1999.
- Houston has written-had funded NAM's proposals totaling several hundred thousands of dollars.
- Houston has represented NAM, The Mathematical Sciences Community and the community of scholars in many capacities throughout the USA and abroad for three decades.


## REFERENCES

I. Houston, Johnny L., "A Brief History of the National Association of Mathematicians, Inc.", African Americans in Mathematics II
Contemporary Mathematics Series
American Mathematical Society; copyright 1999, pp. 139-174.
II Houston, Johnny L., Personal Files and General Library
III. Houston, Johnny L., Photographic Library
IV. Houston, Johnny L., Website: http://cssvc.ecsu edu/johnny houston
V. NAM's Archival Records - The Official Records of the National Association of Mathematicians, Inc. located at NAM's National Office/Headquarters
VI. NAM's Newsletters: December 31, 1971 through December 15, 1999
VII. NAM's 1999 Proceedings
VIII. NAM's 1989 Proceedings
IX. NAM's 1988 Proceedings
X. NAM's 1980 Proceedings
XI. National Association of Mathematicians, Inc. (NAM); Websites:
http://jewel morgan.edu/ nam/:
http://www math buffalo edu/mad/CAARMS/NAM-index.html
http://cssve.ecsu.edu
http://www caam.rice.edu/~nated/orgs/nam/index.html
XII. Mathematicians of the African Diaspora; (Scott W. Williams; SUNY; Buffalo, NY) website: http//www math buffalo edu/mad/mad.html
XIII. The National Association of Mathematicians, Inc.: National Offices

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[^0]:    These highlights conclude Chapter II: "The Formative years of NAM 1969-1974"

[^1]:    * Louise Raphael, Associate Professor of Mathematics at Howard University, received and accepted an invitation to participate in The Differential Equations Workshop in Peiping, China in June, 1985.

[^2]:    MAA 99 MATHFEST Providence, Rhode Islanc Sunday, August 1, 1999
    3:05 P.M. 3:05 P.M.

