# COUNCIL MINUTES 

## Chicago, IL

## 21 April 2012

Prepared April 23, 2012


#### Abstract

The Council of the Society met at on Saturday, 21 April 2012, in the Dublin/London room at the Hilton Chicago O’Hare Airport Hotel, O’Hare International Airport, Chicago, IL, 60666. These are the minutes of that meeting. Although some items were treated in Executive Session, all actions taken are reported in these minutes.


## Contents

I. MINUTES

1. Call to Order. ..... 4
1.1. Opening of the Meeting and Introductions. ..... 4
1.2. Recent Additional to this Council ..... 4
1.3. List of Council Members. ..... 4
2. Minutes. ..... 5
2.1. Minutes of the January 2012 Council. ..... 5
2.2. Minutes of Business by Mail. ..... 5
3. Consent Agenda. ..... 5
4. Reports of Boards and Standing Committees. ..... 5
4.1. Nominating Committee. ..... 5
4.1.1. President. ..... 5
4.1.2. Vice President. ..... 6
4.1.3. Members at Large of the Council. ..... 6
4.1.4. Trustee ..... 6
4.2. Editorial Boards Committee. ..... 6
4.2.1. Mathematical Surveys and Monographs. ..... 6
4.3. Notices of the American Mathematical Society Editorial Committee. ..... 6
4.4. Committee on Science Policy. ..... 6
4.5. Committee on Meetings and Conferences ..... 7
4.5.1. Guidelines for Choosing Speakers. ..... 7
4.6. Committee on Profession. ..... 8
4.6.1. AMS F4ellows Selection Committee. ..... 8
4.6.2. Committee on the Status orf Women in Mathematics (CoSWIM). 9 ..... 9
4.7. Committee on Human Rights of Mathematicians. ..... 10
4.8. AMS-MAA Committee on Mathematicians with Disabilities. ..... 10
4.9. AMS-AWM-ASA-IMS-MAA-NCTM-SIAM Jt Committee on Women. ..... 10
5. Old Business. ..... 10
6. New Business. ..... 11
6.1. Discussion. ..... 11
6.2. Report of the Executive Director. ..... 11
6.3. President's Remarks ..... 11
7. Announcements, Information and Record ..... 12
7.1. 2012-2013 Centennial Fellowship. ..... 12
7.2. Executive Committee Actions. ..... 12
7.3. Associate Secretary Opening. ..... 12
7.4. Next Council Meeting. ..... 12
8. Adjournment. ..... 11

## ATTACHMENTS

Attachment A. 2012 Council
Attachment B. Minutes of Council Business By Mail Attachment C. AMS Programs that Support Diversity
Attachment D. AMS "Improving Diversity" web page
Attachment E. Report on Faculty Retention by Gender

## I. MINUTES

## 1. Call to Order

### 1.1. Opening of the Meeting and Introductions

AMS President Eric Friedlander called the meeting to order promptly at 12:07 pm, CDT, and he presided throughout. He asked those present to introduce themselves. Other Council members present were: Dan Abramovich, Alejandro Adem, Matthew Ando, Hélène Barcelo, Estelle Basor, Arthur T. Benjamin, Georgia Benkart, Susanne C. Brenner, James A. Carlson, Robert J. Daverman, Robert Guralnick, Richard Hain, Jane Hawkins, Patricia Hersh, Tara S. Holm, Barbara Lee Keyfitz, Bryna Kra, Zbigniew Nitecki, Andrew M. Odlyzko, Victoria Powers, Joseph H. Silverman, T. Christine Stevens, Christoph Thiele, David A. Vogan and Steven H. Weintraub. Other interested parties and guests were: Richard Brualdi (Chair, AMS Nominating Committee), Sandy Golden (Administrative Assistant, AMS Secretary), Robin Marek (AMS Development Director), Ellen Maycock (AMS Associate Executive Director), Donald McClure (AMS Executive Director), and Ronald J. Stern (AMS Board of Trustees). Steven Weintraub was the voting Associate Secretary.

### 1.2. Recent Additions to this Council

Newly elected or appointed members of the Council took office on 01 February 2012, and they are:

| President Elect | David A. Vogan, Jr. |
| :--- | :--- |
| Vice President | Andrew M. Odlyzko |
| Associate Treasurer | Zbigniew Nitecki |
| Members at Large | Dan Abramovich <br> Hélène Barcelo <br> Arthur T. Benjamin <br> James Carlson <br> Victoria Powers |
| Colloquium Editorial Committee Chair | Peter Sarnak |
| Editor in Chief, Mathematics of Computation | Susanne C. Brenner |
| President Friedlander welcomed them all. |  |

### 1.3. List of Council Members

A list of current Council members can be found in Attachment A.

## 2. Minutes

### 2.1. Minutes of the January 2012 Council

The minutes of the January 2012 Council were distributed by mail prior to the meeting. They also are available on the web at
$\underline{\text { http://www.ams.org/about-us/governance/council/council-minutes0112.pdf }}$
The Council approved these Minutes as distributed.

### 2.2. Minutes of Business by Mail

The Council has conducted business by mail since the last Council meeting. Minutes for this business are attached (Attachment B). The action taken was to elect HÉLÈNE BARCELO to the Executive Committee of the Council for the four-year term 01 February 2012-31 January 2016. The council also approved these Minutes.

## 3. Consent Agenda

## 4. Reports of Boards and Standing Committees

### 4.1. Nominating Committee

The AMS Nominating Committee had recommendations for the AMS Council concerning the forthcoming AMS election in Fall 2012. It also has recommendations concerning two candidates for President to stand in the Fall 2013 AMS Election. Richard Brualdi, Chair of the Nominating Committee, reported.

### 4.1.1. President

The Nominating Committee recommends the nominations of ROBERT L. BRYANT (Mathematical Sciences Research Institute and University of California, Berkeley) and BENEDICT H. GROSS (Harvard University) to stand as candidates for President Elect in the 2013 Election.. This would be for a one year term, 01 February 2014-31 January 2015, followed by a two year term as President and then by a one year term as Immediate Past President. The Nominating Committee also recommended that David Eisenbud (University of California, Berkeley) and others be named to write the nominating article for Bryant and Kenneth Ribet (University of California, Berkeley), aided by Joe Buhler (Reed College), to write the one for Gross. The Council nominated them to stand for election as President in 2013.

### 4.1.2. Vice President

The Nominating Committee recommends the appointment of CHUU-LIAN TERNG (University of California, Irvine) and CHRISTOPH THIELE (University of California, Los Angeles) as candidates for election to one post as Vice President for a term of three years, beginning 01 February 2013 and ending 31 January 2016. The Council appointed the two of them as candidates.

### 4.1.3. Members at Large of the Council

The Nominating Committee recommends the appointment of JESUS A. DE LOERA (University of California, Davis), PAUL G. GOERSS (Northwestern University), ALLAN T. GREENLEAF (University of Rochester), BRENDAN E. HASSETT (Rice University), DAVID E. MARKER (University of Illinois, Chicago), NATAŠA PAVLOVIĆ (University of Texas at Austin), AMBER PUHA (California State University, San Marcos), KENNETH A. RIBET (University of California, Berkeley), BENJAMIN SUDAKOV (University of California, Los Angeles) and YURI TSCHINKEL (Courant Institute) as candidates for election to positions as Member at Large of the Council. Five people are to be elected. The term is three years, beginning 01 February 2013 and ending 31 January 2016. The Council appointed these ten as candidates.

### 4.1.4. Trustee

The Nominating Committee recommends the appointment of JOEL SPENCER (Courant Institute) and KAREN VOGTMANN (Cornell University) as candidates for election as Trustee for a term of five years, beginning 01 February 2013 and ending 31 January 2018. The Council appointed them as candidates.

### 4.2. Editorial Boards Committee

### 4.2.1. Mathematical Surveys and Monographs

The Editorial Boards Committee recommended extending the term of RALPH L. COHEN as member and chair of the Mathematical Surveys and Monographs Editorial Committee for two years (01 February 2013 31 January 2015). The Council did so.

### 4.3. Notices of the American Mathematical Society Editorial Committee

Steven Krantz, Editor in Chief of the Notices, recommended the appointment of ERIC BEDFORD (Bloomington, Indiana), JAMES S. WALKER (Eau Claire, Wisconsin) and GERALD B. FOLLAND (Seattle, Washington) as Associate Editors of the Notices for three year terms, beginning 01 January 2013 and ending 31 December 2015. The Council appointed each of them for the specified term.

### 4.4. Committee on Science Policy

The AMS Science Policy Committee met in Washington, D.C., on March 16-17, 2012. A report from this committee will be attached to the January 2013 Council Agenda.

### 4.5. Committee on Meetings and Conferences

The AMS Committee on Meetings and Conferences (CoMC) met in Providence, Rhode Island, on March 24, 2012. A report from this committee will be attached to the January 2013 Council Agenda.

### 4.5.1. Guidelines for Choosing Speakers

In addition, CoMC forwarded the following for Council action, with the presumption that, if adopted, it would be transmitted to AMS program committees.

## How to choose plenary speakers

It should be remembered that giving a plenary AMS talk is a privilege, not a right. Proving an excellent theorem is necessary but not sufficient for an invitation.

Each of the following criteria should be considered when choosing plenary speakers:

1. Committee members are encouraged to look outside their departments and their fields when they choose speakers.
2. Each speaker should have made a recent notable contribution to mathematics.
3. The committee should have evidence that the proposed speaker is a good (preferably excellent) expositor.
4. Speakers should have the ability to explain their areas and their contributions to a general audience. For example, a talk on the details of a hard technical advance is not appropriate for a plenary AMS talk.
5. The list of all plenary speakers should represent the full diversity of mathematics, in terms of fields, career stages, and membership in underrepresented groups.

The Council agreed that, in place of "plenary speakers," it would be better to use either " invited speakers" or "invited addresses." It was also agreed to remove the second sentence of Item 4 and to change Item 5 to read, "The choice of all invited speakers should seek to represent the full diversity of mathematics." It was also agreed that, in the preamble, the second sentence should begin "Making a notable contribution to mathematics is a necessary ...."

The Council approved the modified guidelines, which read:

## How to choose AMS Invited Speakers

It should be remembered that giving a AMS Invited Address is a privilege, not a right. Making a notable contribution is necessary but not sufficient for an invitation.

Each of the following criteria should be considered when choosing invited speakers:

1. Committee members are encouraged to look outside their departments and their fields when they choose speakers.
2. Each speaker should have made a recent notable contribution to mathematics.
3. The committee should have evidence that the proposed speaker is a good (preferably excellent) expositor.
4. Speakers should have the ability to explain their areas and their contributions to a general audience.
5. The choice of all invited speakers should seek to represent the full diversity of mathematics.

### 4.6. Committee on the Profession

The Committee on the Profession recommended the following general descriptions and charges for two new committees.

### 4.6.1. AMS Fellows Selection Committee

## General Description

Committee is standing.
Term is three years.
Number of members is twelve, selected from among the AMS Fellows, appointed by the President

## (Proposed) Charge

The Selection Committee names new Fellows each year after a nomination process, which is carried out under the direction of the Secretary with logistical support from the AMS staff. Each January the Council provides a guideline for the number of Fellows to be selected. The Selection Committee will consider both the quality of the nominees and diversity of every kind. The Selection Committee has the discretion to consider individuals beyond those identified in the nomination process. It should comply to the extent possible with the guideline for the number of new members provided by the Council. It should complete its deliberations early enough in the Fall so that rising Fellows can make arrangements to attend the induction ceremony at the Joint Mathematics Meetings held the following January.

It was moved and seconded to strike the sentence beginning "It should comply ..." The amendment failed. Then it was moved and seconded to strike the sentence beginning "The Selection Committee has the discretion ...," which the Council approved. It was moved and seconded to insert in its place, "The members of the Selection Committee have the discretion to make nominations to fulfill the general goals of the Fellowship, according to the established procedures." The amendment carried. It was moved and seconded to change "rising Fellows" by "Fellows-elect." That amendment also carried. It was moved and seconded to rescind the action of inserting a sentence, and the Council voted to rescind. It was moved and seconded to amend by inserting, in its place, "Current members of the Selection Committee may not make nominations for Fellows." After further debate, it was moved to call the question, and the Council immediately concurred with that motion. The amendment carried. Finally, the amended general description and charge carried. The charge as adopted reads:

## Charge (as adopted)

The Selection Committee names new Fellows each year after a nomination process, which is carried out under the direction of the Secretary with logistical support from the AMS staff. Each January the Council provides a guideline for the number of Fellows to be selected. The Selection Committee will consider both the quality of the nominees and diversity of every kind. Current members of the Selection Committee may not make nominations for Fellows. It should comply to the extent possible with the guideline for the number of new members provided by the Council. It should complete its deliberations early enough in the Fall so that Fellows-elect can make arrangements to attend the induction ceremony at the Joint Mathematics Meetings held the following January.

### 4.6.2. Committee on the Status of Women in Mathematics (CoSWIM)

## General description

Committee is standing.
Term is three years.
Number of members is five.

## Charge

In order to support the broadest possible participation of women in mathematics, the Committee on the Status of Women in Mathematics (CoSWIM) will collect and disseminate data, propose actions to encourage participation and recognition of women in mathematics, and promote best practices within the mathematical community.

It was moved and seconded to change the committee name and acronym to Mathematical Participation of Women in Research (MPOWR). The motion failed. It was moved and seconded to insert the words
"career development" after "participation." The amendment carried. It was moved and seconded to insert "analyze" after "collect." That amendment failed. It was moved, seconded and approved to change the name to Committee on Women in Mathematics (CoWIM), which carried. The Council approved the amended charge and the modified name.

## Charge as adopted for Committee on Women in Mathematics (CoWIM)

In order to support the broadest possible participation of women in mathematics, the Committee on Women in Mathematics (CoWIM) will collect and disseminate data, propose actions to encourage participation, career development and recognition of women in mathematics, and promote best practices within the mathematical community.

### 4.7. Committee on Human Rights of Mathematicians

The annual report of this committee has been filed in the AMS Committee Report Book as Committee Report Number 111228-012.

### 4.8. AMS-MAA Committee on Mathematicians with Disabilities

The annual report of this committee has been filed in the AMS Committee Report Book as Committee Report Number 111107-011.

### 4.9 AMS-AWM-ASA-IMS-MAA-NCTM-SIAM Joint Committee on Women

The annual report of this committee has been filed in the AMS Committee Report Book as Committee Report Number 111219-013.

## 5. Old Business

No old business was considered at this meeting.

## 6. New Business

### 6.1. Discussion

As a repeat of an item first tried in April 2002, the Council devoted a portion of this meeting to a discussion of one of the items in its purview. At its meeting in November, 2011 the Council's Executive Committee decided that the topic of the Council discussion period will be what additional steps the AMS might take to promote diversity. Three attachments provided some background for the discussion. Attachment $\mathbf{C}$ lists some AMS programs that actively, not just indirectly, support diversity. Attachment D presents a copy of the AMS "Increasing Diversity"web page, which can be viewed interactively at

> http://www.ams.org/programs/diversity/diversity

This Attachment displays a list of resources and suggestions aimed toward that effect described in the page title, and indicates some programs already in effect. The Executive Committee hopes the discussion might lead to ward useful additional steps the Society could take toward this desirable end.

An additional background resource appears as Attachment E: the abstract of an article entitled "Survival Analysis of Faculty Retention in Science and Engineering by Gender," which appeared in a February 2012 issue of Science. Full text may be viewable at
www.sciencemag.org/content/335/6070/864.full .
The discussion lasted nearly an hour. No action was taken.

### 6.2. Report of the Executive Director

The Executive Director, Donald McClure, gave his annual report to the Council, which has been filed in the AMS Committee Report Book as Committee Report Number 120412-014. He added supplementary comments about programs, publications and financials to his written report.

### 6.3. President's Remarks

President Friedlander remarked about current issues facing the AMS.

## 7. Announcements, Information and Record

### 7.1. 2012-2013 Centennial Fellowship

The AMS Centennial Fellowship Committee has announced that Karin Hanley Melnick (University of Maryland) is the winner of the 2012 Fellowship competition. Melnick has accepted the award. The amount of this fellowship for 2012-2013 will be $\$ 80,000$, with an additional expense allowance of $\$ 8000$.

### 7.2. Executive Committee Actions

Acting upon a recommendation from Peter Kuchment, the new Bulletin Editor for Book Reviews, the Executive Committee (EC) appointed Evans Harrell (Atlanta, Georgia) as a BAMS Associate Editor for Book Reviews for the 01 Feburary 2012-31 January 2015 term. The EC also reappointed each Jonathan Alperin (Chicago, Illinois), Lisa Jeffrey (Toronto, Ontario), Steven Krantz (St Louis, Missouri) , Ken Ono (Atlanta, Georgia), and Philip Protter (New York, New York) to the same position for that term.

### 7.3. Associate Secretary Opening

Matthew Miller, Associate Secretary for the Southeastern Section, has stepped down from that post. A search committee consisting of Ruth Charney, Carla Savage, Joseph Silverman and Robert Daverman (chair) has been formed to identify his successor.

### 7.4. Next Council Meeting

The next meeting of this Council will be Tuesday, 08 January 2013, in San Diego, California, starting at 1:30pm.

## 8. Adjournment

At 4:00pm the Council was engaged in its scheduled Discussion (Item 6.1), having concluded all its other business. President Friedlander called a brief pause, allowing departure for those who needed to leave. The Discussion then continued until $4: 40 \mathrm{pm}$, when the meeting officially adjourned.

## Attachment A

## 2012 AMS GOVERNANCE

## 2012 COUNCIL

## Officers

President
President Elect
Vice Presidents
Secretary
Associate Secretaries
Treasurer
Associate Treasurer

Eric Friedlander
David A. Vogan, Jr. Sylvain Cappell Barbara Lee Keyfitz Andrew M. Odlyzko
Robert J. Daverman
Georgia Benkart
Michel Lapidus
Steven H. Weintraub
Jane M. Hawkins
Zbigniew Nitecki

University of Southern California 2013
Massachusetts Inst. of Technology 2016
New York University-Courant 2012
Ohio State University 2013
University of Minnesota 2014
University of Tennessee 2012
University of Wisconsin 2013
University of California, Riverside 2013
Lehigh University 2012
University of North Carolina 2012
Tufts University 2013

## Representatives of Committees

Bulletin Editorial
Colloquium Editorial
Executive Committee
Executive Committee Journal of the AMS
Math Reviews Editorial
Math Surveys \& Monographs
Mathematics of Computation
Proceedings Editorial
Transactions and Memoirs

| Susan J. Friedlander, Chair | University of Southern California | 2014 |
| :--- | :--- | :--- |
| Peter Sarnak, Chair | Princeton University | 2013 |
| Joseph H. Silverman | Brown University | 2012 |
| Bryna Kra | Northwestern University | 2013 |
| Karl Rubin, Chair | University of California, Irvine | 2013 |
| Ronald M. Solomon, Chair | Ohio State University | 2012 |
| Ralph L. Cohen, Chair | Stanford University | 2012 |
| Susanne C. Brenner, Chair | Louisiana State University | 2015 |
| Ken Ono, Chair | University of Wisconsin | 2013 |
| Robert Guralnick, Chair | University of Southern California 2012 |  |

## Members at Large

Dan Abramovich Alejandro Adem Matthew Ando
Hélène Barcelo
Estelle Basor
Arthur T. Benjamin
James A. Carlson
Richard Hain
Patricia Hersh
Tara S. Holm
Victoria Powers
Jennifer Schultens
T. Christine Stevens

Janet Talvacchia
Christoph Thiele

Brown University 2014
University of British Columbia 2012
University of Illinois 2013
Mathematical Sciences Research Institute 2014
American Institute of Mathematics 2013
Harvey Mudd college 2014
Clay Mathematics Institute 2014
Duke University 2012
North Carolina State University 2013
Cornell University 2013
Emory University 2014
University of California, Davis 2012
Saint Louis University 2013
Swarthmore College 2012
University of California, Los Angeles 2012

## 2012 EXECUTIVE COMMITTEE

| Hélène Barcelo | Arizona State University | 2015 |
| :--- | :--- | :--- |
| Ralph L. Cohen | Stanford University | 2014 |
| Robert J. Daverman | University of Tennessee | ex officio |
| Eric Friedlander | University of Southern California | ex officio |
| Bryna Kra | Northwestern University | 2013 |
| Joseph H. Silverman | Brown University | 2012 |
| David A. Vogan | Massachusetts Institute of Technology ex officio |  |

## 2012 TRUSTEES

Ruth Charney
Eric Friedlander
Mark L. Green
Jane M. Hawkins
William H. Jaco
Ronald J. Stern
Karen Vogtmann
Zbigniew Nitecki

| Brandeis University | 2016 |
| :--- | :--- |
| University of Southern California | ex officio |
| University of California, Los Angeles | 2014 |
| University of North Carolina | ex officio |
| Oklahoma State University | 2015 |
| University of California, Irvine | 2013 |
| Cornell University | 2012 |
| Tufts University | ex officio |

## 2012 EDITORIAL BOARDS COMMITTEE

| Ralph Greenberg | University of Washington | 2014 |
| :--- | :--- | :--- |
| Jonathan I. Hall | Michigan State University | 2012 |
| Anatoly S. Libgober | University of Illinois at Chicago | 2012 |
| Dana Randall | Georgia Institute of Technology | 2014 |
| John R. Stembridge | University of Michigan | 2013 |
| Sergei K. Suslov | Arizona State University | 2013 |

## 2012 NOMINATING COMMITTEE

William Beckner<br>Richard Brualdi<br>Frederick R. Cohen<br>Richard T. Durrett<br>Susan Friedlander<br>Fan Chung Graham<br>Donal B. O'Shea<br>Carla D. Savage<br>Gunther Uhlmann

University of Texas at Austin 2012
University of Wisconsin 2013
University of Rochester 2014
Duke University 2012
University of Southern California 2014
University of California, San Diego 2014
Mount Holyoke College 2013
North Carolina State University 2012
University of Washington, Seattle 2013

# AMERICAN MATHEMATICAL SOCIETY <br> MINUTES OF THE COUNCIL <br> BUSINESS BY MAIL <br> 17 March 2012 

In a mail ballot dated 14 February 2012, there were 26 ballots cast, by:

| Alejandro Adem | Barbara Lee Keyfitz |
| :--- | :--- |
| Matthew Ando | Bryna Kra |
| Hèlèn Barcelo | Zbigniew Nitecki |
| Estelle Basor | Andrew Odlyzko |
| Arthur Benjamin | Ken Ono |
| Susanne Brenner | Victoria Powers |
| Ralph L. Cohen | Karl C. Rubin |
| Robert Daverman | Joseph H. Silverman |
| Eric M. Friedlander | Ronald Solomon |
| Susan J. Friedlander | T. Christine Stevens |
| Jane M. Hawkins | Janet Talvacchia |
| Patricia Hersh | Christoph Thiele |
| Tara Holm | David Vogan |
| Craig Huneke |  |

In the election to the Executive Committee the result was:
Alejandro Adem 9
Hèlèn Barcelo 17

Accordingly, Barcelo is declared elected, effective immediately, and ending when a replacement is determined in the election of February 2016.

Robert J. Daverman
Secretary
April 4, 2012

## Attachment C

## AMS Programs that Support Diversity

The AMS supports and promotes diversity in many ways, some direct, others indirect. The direct ways include:

## Prizes and Awards

The Exemplary Program Prize, which recognizes a department which has distinguished itself by undertaking an unusual or particularly effective program of value to the mathematics community, internally or in relation to the rest of society.

Programs that Make a Difference Award, offered through the Committee on the Profession. According to the aims of this award series, the AMS will compile and publish a series of profiles of programs that:
a. aim to bring more persons from underrepresented backgrounds into some portion of the pipeline beginning at the undergraduate level and leading to advanced degrees in mathematics and professional success, or retain them once in the pipeline;
b. have achieved documentable success in doing so; and
c. are replicable models.

Preference will be given to programs with significant participation by underrepresented minorities
Ruth Lyttle Satter Prize, which recognizes an outstanding contribution to mathematics research by a woman in the previous six years.

## Committees

AMS-ASA-AWM-IMS-MAA-NCTM-SIAM Joint Committee on Women in the Mathematical Sciences, whose original charge was to identify and to recommend to the Council those actions which in their opinion the Society should take to alleviate some of the disadvantages that women mathematicians now experience and to document their recommendations and actions by presenting data.

Newly forming AMS Committee on the Status of Women in Mathematics, whose tentative charge reads: "is In order to support the broadest possible participation of women in mathematics, the Committee on the Status of Women in Mathematics (CoSWIM) will collect and disseminate data, propose actions to encourage participation and recognition of women in mathematics, and promote best practices within the mathematical community."

## Financial Support

The AMS provides financial assistance to support mathematics programs at the annual SACNAS National Conference. The mission of SACNAS (Society for Advancement of Chicanos and Native Americans in Science) is to encourage Chicano/Latino, Native American, and underrepresented students to pursue graduate education and obtain the advanced degrees necessary for science research, leadership, and teaching careers at all levels.

## Programs

Mathematics Research
Communities
Travel Grants
AMS Fellowships
Supporting Educational Initiatives

Book and Journal
Donation Program
Programs for Students
Increasing Diversity
Other Sources of
Funding

## Information for

## Authors

Faculty
Librarians
Media
MR Community
Researchers
Students

## Member Journals

Bulletin
Notices

## Increasing Diversity in the Mathematics Profession



The AMS strongly supports equal opportunity in employment．Despite increasing participation at many levels，retention and promotion of women and underrepresented minorities remain unacceptably low， particularly at research universities．Therefore，AMS members，both individual and institutional，are urged to examine frequently their policies and procedures to find ways to facilitate careers in mathematics research for women and underrepresented minorities．

## Some Sources for Courses of Action

－Women Mathematicians in the Academic Ranks 园，Report of the 2006 BIRS workshop on Women in Mathematics
－To Recruit and Advance：Women Students and Faculty in Science and Engineering 图，Chapter 4，NAP 2006

- Beyond Bias and Barriers：Fulfilling the Potential of Women in Academic Science and Engineering 图，NAP
- Awardee Websites under the NSF ADVANCE 㻮 Program
- Guidelines for Recruiting a Diverse Workforce 图，Penn State University
- Faculty Recruitment Toolkit 룻 园，University of Washington
- Faculty Search Committee Handbook 芧，Massachusetts Institute of Technology
- Handbook for Faculty Searches and Hiring 芧（⿴囗⿱一兀寸，University of Michigan


## Organizations and Data

－The Annual Survey is a source for recent data concerning hiring，retention，and promotion in mathematics．
－Society for the Advancement of Chicanos and Native Americans in Science（SACNAS）즁
－National Association of Mathematicians is a professional organization that promotes excellence in the mathematical sciences and the mathematical development of underrepresented minorities．
－The Council for African American Researchers in the Mathematical Sciences（CAARMS）通
－National Alliance for Doctoral Studies in Mathematics
－The Association for Women in Mathematics（AWM）충
－Science Career Magazine Annual Diversity Issue 图 provides career help，advice，and support especially for minority students and their mentors．
－Diversity in the Mathematics and Scientific Community 툰 provides resources for addressing issues of diversity in programs，such as improving recruitment，hiring and retention practices，and capitalizing on mentor opportunities to support diversity at all levels．

## Programs，Funding，and Fellowships that Promote Diversity

－Mathematics Programs That Make a Difference Since 2006，the AMS has highlighted programs that aim to bring more persons from underrepresented minority backgrounds into the pipeline beginning at the undergraduate level and leading to an advanced degree in mathematics，or retain them in the pipeline．

## Quick Links

（ $)$ Data on New Ph．D．s and Hiring
© Join the AMS！
©．Mathematics
Genealogy

## News

Encouraging Women and Minorities in Mathematics： MSRI Honored for Achievements

AMS Prizes and Awards Page Has a New Look Prizes and Awards has been revamped，with new features including prize winner photos， deadlines，online nominations and more．

Daubechies Wins Nemmers Prize

American Academy of Arts and Sciences Seven people from the mathematical sciences are among the new members．

MSRI Receives 2012
Mathematics Programs that Make a Difference Award

## Calendar

2013 Joint Mathematics Meetings

6th European Congress of Mathematics

MCA 2013 荬
AMS at Mathematics， Scientific and Publishing Meetings
－Association for Women in Mathematics（AWM）Programs 茨A listing of programs，conferences， workshops，lectures，and information on mentoring for women in mathematics．
－Sloan Career Cornerstone Center ${ }^{*}$ A listing of programs for underrepresented minorities and women that focus on science，engineering，mathematics and medicine，including information on university resources， summer programs，precollege programs，scholarship opportunities，and professional association support．
－Ford Foundation Diversity Fellowships 出 Annual fellowships available for predoctoral，dissertation，and postdoctoral levels，which aim to increase the diversity of the nation＇s college and university faculties．
－The Sloan Foundation offers special scholarships to underrepresented minority students who are beginning their doctoral work in engineering，natural sciences，or mathematics．
－NSF－AWM Travel Grants for Women support travel that enhances mathematical research．
－Under the Microscope where women and science connect，from the Feminist Press
－Presidential Awards for Excellence in Science，Mathematics and Engineering Mentoring（PAESMEM）园 program seeks to identify outstanding mentoring efforts that enhance the participation of groups underrepresented in science，technology，engineering，and mathematics．
－National Alliance for Doctoral Studies in Mathematics

## Biographies and More

－Women Doing Mathematics is a poster and web page from the AMS．
－AWM Essay Contest：Biographies of Contemporary Women in Mathematics 圂？AWM and Math for America sponsor an annual contest to increase awareness of women＇s ongoing contributions to the mathematical sciences．
－Biographies of Women Mathematicians 圂 illustrates the achievements of women in the field of mathematics and is part of an ongoing project at Agnes Scott College in Atlanta，Georgia．
－Mathematicians of the African Diaspora exhibits the accomplishments mathematicians from Africa and the African Diaspora．

Questions？Contact the AMS．Email AMS Membership and Programs Department

# Report on Faculty Retention by Gender 

Science 17 February 2012:
Vol. 335 no. 6070 pp. 864-866
DOI: 10.1126/science. 1214844

## Report

# Survival Analysis of Faculty Retention in Science and Engineering by Gender 

Deborah Kaminski ${ }^{1}$, Cheryl Geisler ${ }^{2}$<br>+ Author Affiliations<br>${ }^{1}$ Department of Mechanical, Aerospace, and Nuclear Engineering, Rensselaer Polytechnic Institute, Troy, NY 12180, USA.<br>${ }^{2}$ Faculty of Communication, Art, and Technology, Simon Fraser University, Harbour Centre 7410, 515 West Hastings Street, Vancouver, BC V6B 5K3, Canada.

$\leftarrow^{*}$ To whom correspondence should be addressed. E-mail: kamind@rpi.edu


#### Abstract

Individual assistant professors (a total of 2966 faculty) hired in science and engineering since 1990 at 14 United States universities were tracked from time of hire to time of departure by using publicly available catalogs and bulletins. Results of survival analysis showed that the chance that any given faculty member will be retained over time is less than $50 \%$; the median time to departure is 10.9 years. Of all those who enter as assistant professors, $64.2 \%$ were promoted to associate professor at the same institution. Overall, men and women are retained and promoted at the same rate. In mathematics, however, faculty leave significantly earlier than other disciplines, and women leave significantly sooner than men, 4.45 years compared with 7.33 years.


