

**Gender Diversity in Logic and the ASL
Context and Data**

July 2009

Relevant Recommendations on Maximizing the Potential of Women in Academic Science and Engineering

4.8 Scientific and professional societies should provide professional development training for members that includes a component on bias in evaluation; develop and enforce guidelines to ensure significant representation of women on meeting speaker lists, on editorial boards, and in other significant leadership positions; and work to ensure that women are recognized for their contributions to the nation's scientific and engineering enterprise through nominations for awards and leadership positions.

4.10 Journals should examine their entire review process, including the mechanisms by which decisions are made to send a submission to review, and take steps to minimize gender bias, such as blinded reviews.

5.8. Scientific and professional societies should serve in an analogous role to individual national governing bodies for sports and set professional and equity standards and collect and disseminate field-wide education and workforce data.

5.9. Universities and scientific and professional societies should provide child-care and elder-care grants or subsidies to enable their members to attend work-related conferences and meetings.

Source: National Academy of Sciences, National Academy of Engineering, and Institute of Medicine: *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*, National Academies Press, 2007

http://www.nap.edu/catalog.php?record_id=11741#toc

Links & References

Statistics on women compiled by the AMS (published annually in the Notices, eg: <http://www.ams.org/notices/200809/tx080901132p.pdf>). Includes much of the data we've compiled for the ASL here.

ACM Committee on Women in Computing
<http://women.acm.org/>

Association for Women in Mathematics
<http://www.awm-math.org/>

American Philosophical Association Committee on Women in Philosophy
<http://www.apaonline.org/governance/committees/women/index.aspx>

European Women in Mathematics
<http://www.math.helsinki.fi/EWM/>

Women in Computability at CiE
http://www.math.uni-heidelberg.de/logic/cie2009/c_women.php

National Academy of Sciences, National Academy of Engineering, and Institute of Medicine: *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*, National Academies Press, 2007
http://www.nap.edu/catalog.php?record_id=11741#toc

Virginia Valian, *Tutorials for Change: Gender Schemas and Science Careers*, 2006
<http://www.hunter.cuny.edu/gendertutorial/>

**Invited Speakers at ASL Meetings
By Field, Type of Talk, Repeat Speakers, 2000-2009**

Field	Data	All Speakers	All Talks	Plenary Talks	1-3 Invites	>3 Invites
Total #		550	960	357	702	258
# Women		68	101	32	87	14
% Women		12%	11%	9%	12%	5%
Model Theory	#		237	93	206	31
	# Women		40	14	35	5
	% Women		17%	15%	17%	16%
	% of All		25%	26%	87%	13%
Recursion Theory	#		138	44	73	65
	# Women		18	8	9	9
	% Women		13%	18%	12%	14%
	% of All		14%	12%	53%	47%
Set Theory	#		210	76	124	86
	# Women		17	3	17	0
	% Women		8%	4%	14%	0%
	% of All		22%	21%	59%	41%
Logic in Computer Science	#		99	43	95	4
	# Women		7	2	7	0
	% Women		7%	5%	7%	0%
	% of All		10%	12%	96%	4%
Proof Theory and Constructive Math	#		116	42	85	31
	# Women		3	0	3	0
	% Women		3%	0%	4%	0%
	% of All		12%	12%	73%	27%
Philosophical logic, Philosophy of Math, History	#		144	59	106	38
	# Women		15	5	15	0
	% Women		10%	8%	14%	0%
	% of All		15%	17%	74%	26%
Education	#		16		13	3
	# Women		1		1	0
	% Women		6%		8%	0%
	% of All		2%		81%	19%

% of All: For first two columns, this gives the percentage of talks in that field among all talks, e.g., the 25% in the left column in the row “Model Theory” means: 25% of all invited talks were in model theory. For the second two columns, this gives the percentage of talks by the corresponding class of speakers of all talks in that field, e.g., 87% in the third column, first row means: 87% of model theory talks were given by speakers with 1-3 invited talks during 2000-2009.

Source: ASL Meeting Programs, 2000-2009

**Program Committees of ASL Meetings
By Field and Meeting Type, 2000-2009**

Field		Annual Meeting	Logic Colloquium	Joint with APA	Joint with AMS	Total
Total #		65	127	29	33	254
# Women		9	9	2	9	29
% Women		14%	7%	7%	27%	11%
Model Theory	#	13	29	0	9	51
	# Women	3	7	0	2	12
	% Women	23%	24%		22%	24%
	% of all	20%	23%	0%	27%	20%
Recursion Theory	#	10	16	0	6	32
	# Women	1	0	0	4	5
	% Women	10%	0%		67%	16%
	% of all	15%	13%	0%	18%	13%
Set Theory	#	13	25	0	15	53
	# Women	3	1	0	3	7
	% Women	23%	4%		20%	13%
	% of all	20%	20%	0%	45%	21%
Logic in Computer Science	#	11	14	2	1	28
	# Women	2	0	0	0	2
	% Women	18%	0%	0%	0%	7%
	% of all	17%	11%	7%	3%	11%
Proof Theory and Constructive Math	#	6	20	4	1	31
	# Women	0	0	0	0	0
	% Women	0%	0%	0%	0%	0%
	% of all	9%	16%	14%	3%	12%
Philosophical Logic, Philosophy of Math, History	#	12	23	23	1	59
	# Women	0	1	2	0	3
	% Women	0%	4%	9%	0%	5%
	% of all	18%	18%	79%	3%	23%

Of 40 program committees for ASL meetings 2000-2009, 18 (45%) were all-male.

Of 10 program committees for the Annual meetings, 3 (30%) were all-male.

Of 10 program committees for the Logic Colloquia, 4 (40%) were all-male.

Average number of women speakers at meetings with all-male PC: 8%

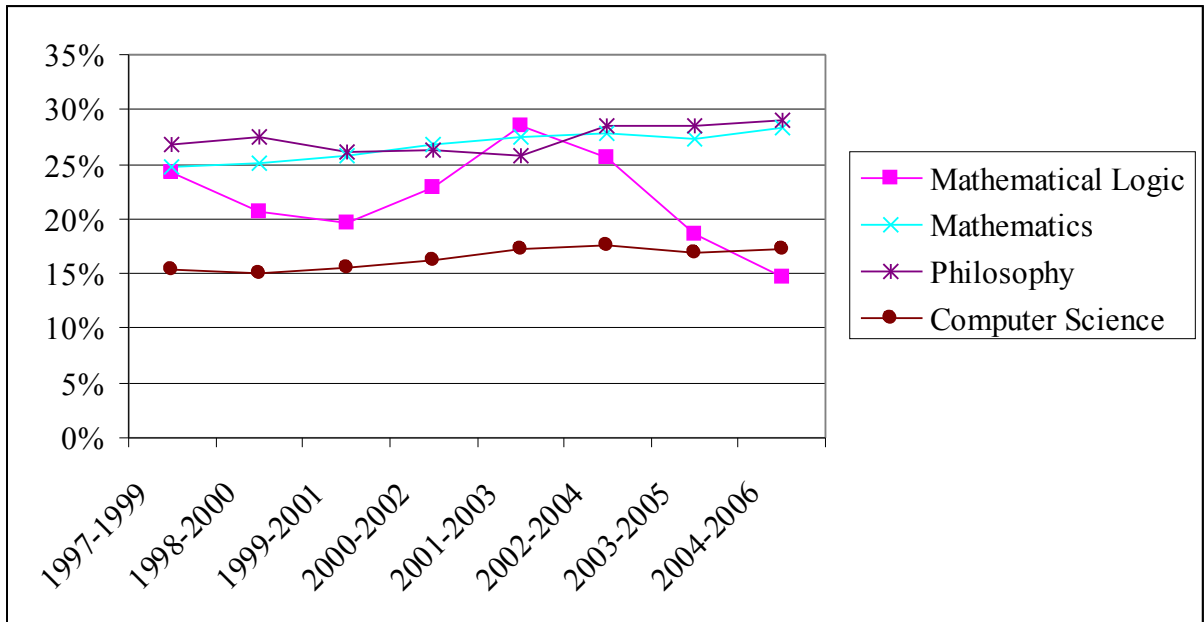
Average number of women speakers at meetings with not all-male PC: 12%

ASL Editorial Boards and Committees, 2009

	#	# Women	% Women
JSL	9	1	11%
<i>RSL Editorial Board</i>	8	0	0%
<i>RSL Advisory Board</i>	18	2	11%
RSL Combined	26	2	8%
BSL Editorial Board	8	1	13%
BSL Reviews	13	1	8%
LNL	6	0	0%
Perspectives	7	0	0%
All Editorial Boards	69	5	7%
Education	7	2	29%
Australasia	6	0	0%
Europe	7	2	29%
Asia	5	1	20%
Latin America	6	0	0%
North America	7	1	14%
Membership	6	2	33%
Prizes	6	1	17%
Translations	6	1	17%
Officers & Past Presidents	6	1	17%
Electected Exec	6	1	17%
Elected Council	6	2	33%
All Governance	74	14	19%
All ASL Positions	143	19	13%

**Percentage of Women among
New PhDs in Mathematical Logic and Related Fields
3-Year Averages, USA, 1997-2000**

	1997-1999	1998-2000	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005	2004-2006
Mathematical Logic	24%	21%	20%	23%	29%	26%	19%	15%
Total	20.7	19.3	22.0	19.0	18.7	15.7	19.7	20.3
Women	5.0	4.0	4.3	4.3	5.3	4.0	3.7	3.0
Mathematics, all subfields	25%	25%	26%	27%	28%	28%	27%	28%
Philosophy, all subfields	27%	28%	26%	26%	26%	29%	29%	29%
Computer Science, all subfields	15%	15%	16%	16%	17%	18%	17%	17%



Source: NSF, NIH, USED, NEH, USDA, NASA. Doctorate Recipients from United States Universities: Summary Report, 1997-2006
 Survey of Earned Doctorates Project website:
<http://www.norc.org/projects/survey+of+earned+doctorates.htm>

Number of doctorates in mathematical logic in 1997-2006 between 15 and 26 per year; between 2 and 6 women per year.

Earned doctorates data for computer science and philosophy do not categorize by subfields, so these percentages are for all doctorates in philosophy and computer science.

Percentage of Women among ASL Members, 2009

By Field:

Computer Science	#	169
	% Women	7%
	% of all	19%
Mathematics	#	545
	% Women	14%
	% of all	61%
Philosophy	#	183
	% Women	8%
	% of all	20%
Undetermined	#	771
	% Women	13%
Total #		1668
Total % Women		12%

% of all is out of all members with departmental affiliation given (excluding “undetermined”)

By Region:

Asia	#	100
	% Women	13%
Australasia	#	34
	% Women	3%
Europe	#	574
	% Women	12%
Latin America	#	68
	% Women	15%
USA and Canada	#	892
	% Women	12%
Total #		1668
Total % Women		12%

Note: Percentages vary significantly by country. It is unclear to what extent this data reflects the composition of the logic community as a whole. For instance, of the invited speakers at ASL conferences 2000-2009, roughly 50% were ASL members (47% of men and 49% of women). But this varies by field: of the speakers in logic in computer science, only 25% were ASL members; of those in recursion theory, 64% were members. In philosophy, 51% of the male speakers were members but only 38% of the women. In set theory and recursion theory, it’s the other way round: roughly 10% more of the female speakers were ASL members than of the male speakers.

Source: Online ASL membership directory. Region and field determined from mailing address; gender determined by first name and web lookup. Data as of July 2009.