Geographers by Gender

Geography in the United States has traditionally been, and remains, a male-dominated discipline. According to various data sources, currently around two-thirds of geographers are male and one-third are female.

AAG members

The AAG membership can be used as a proxy for geographers as a whole since the members are a diverse group including students and educators, government, private sector and non-profit workers, unemployed and retirees.

- Currently 62% of AAG members are male and 38% are female1.

- When the Association was established in 1904, just two of the original 48 members were women. The proportion of female members has been very steadily rising since.

- Figure 1 shows comparable membership records dating back to 1972 when 14% of members were female2.

\[ \text{Figure 1: Change in gender balance among AAG members, 1972-2015} \]

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1 Source: AAG membership data, 2015; sample size 6,312.
2 Source: Annual AAG membership data, 1972 to 2015.
Geography in K-12 education

Teachers

- Of the approximately 18,500 geography teachers in public, county, state, and private schools in the United States, 59% are male and 41% female\(^3\).

- Geography shows a much stronger male bias than among teachers of all subjects and grades at public and private schools, where 24% are male and 76% female\(^4\).

- Among AAG members, the gender balance of K-12 educators has fluctuated over the years. In 1972, 80% were male and 20% female; in 2015 the figures were 70% male, 30% female (although the sample size was too small to be statistically significant) with gender balance around the turn of the century and an overall average across 43 years of 67% male and 33% female\(^5\).

Students

Contrary to trends across the rest of geography, the gender balance at high school level is towards more females taking the subject.

- During the most recent year, 44% of the students taking the Advanced Placement (AP) exam in Human Geography were male and 56% were female\(^6\). The figures were similar for the AP exam in Environmental Science at 45% male and 55% female\(^7\).

- Looking across the 37 subjects currently available as AP programs, these two subjects lie around the overall average of all AP students (45% male, 55% female) with the extremes in gender balance being 23% female in Computer Science and 79% female in Studio Art (Drawing)\(^8\).

- Figure 2 shows that Human Geography has become increasingly female since AP programs started in 2001, while Environmental Science has varied little since starting in 1998\(^9\).

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\(^4\) Source: NCES number of teachers in public and private elementary and secondary schools, 2011-12; sample size 3,850,058.

\(^5\) Source: Annual AAG membership data, 1972 to 2015.

\(^6\) Source: The College Board, AP Program Summary Report 2016; sample size 184,663.

\(^7\) Source: The College Board, AP Program Summary Report 2016; sample size 149,096.

\(^8\) Source: The College Board, AP Program Summary Report 2016; sample size 4,704,980.

Faculty

- Currently 63% of faculty in university and college geography departments are male and 37% are female\(^{10}\).

- In comparison, instructional faculty in postsecondary institutions across all disciplines are more gender-balanced at 51% male and 49% female\(^{11}\).

- Among AAG members, the proportion of female geographers in higher education has been increasing steadily by about 1% every two years. In 1972, 93% of AAG members who worked working in colleges or universities were male and 7% female, rising to 72% male and 28% female in 2015\(^{12}\).

Students

- The current gender balances among geography students are 58% male to 42% female among graduate students\(^{13}\) and 62% male to 38% female among undergraduate students\(^{14}\), averaging out at 60% male to 40% female.

- Geography students are considerably more male-dominated than the student population overall where 42% of graduate students\(^{15}\) and 44% of undergraduate students\(^{16}\) are male.

- Among AAG members, the proportion of female geography students has been increasing steadily by about 0.66% every year. In 1972, 85% of AAG members who reported their employment status as student were male and 15% female, rising to 56% male and 44% female in 2015\(^{17}\).

Figure 3: Faculty and students in higher education by gender

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\(^{10}\) Source: AAG supplemental survey to geography departments, 2015; sample size 1,657.

\(^{11}\) Source: NCES number of faculty in degree-granting postsecondary institutions, 2013; sample size 1,545,381.

\(^{12}\) Source: Annual AAG membership data, 1972 to 2015.

\(^{13}\) Source: AAG supplemental survey to geography departments, 2015; sample size 1,088. These data are very similar to the NCES figures for degrees conferred in geography by postsecondary institutions 2013-2014 which gives the proportions as 59 male/41 female.

\(^{14}\) Source: AAG supplemental survey to geography departments, 2015; sample size 3,564. These data are very similar to the NCES figures for degrees conferred in geography by postsecondary institutions 2013-2014 which gives the proportions as 64 male/36 female.

\(^{15}\) Source: NCES Fall enrollment in degree-granting postsecondary institutions, 2014; sample size 2,914,582.

\(^{16}\) Source: NCES Fall enrollment in degree-granting postsecondary institutions, 2014; sample size 17,292,787.

\(^{17}\) Source: Annual AAG membership data, 1972 to 2015.
Geography in the workplace

- Among geographers who are working professionals in sectors other than education, 72% are male and 28% female, although there is quite a range between sectors, as shown in Figure 4; for example, 58% male in the non-profit sector but 81% male in state or local government.\(^\text{18}\)

- Among professional geographers outside of the education sector, the proportion of females has increased over the last few decades in every employment sector apart from the military (see Figure 5).

\(^{18}\) Source: AAG membership data, 2015 excluding the employment categories student, K-12 educator, college and university, unemployed, retired; sample size 452.
AAG Staff and Officers

AAG Presidents

Of the 113 AAG Presidents between 1904 and 2018, 99 were male (87.6%) and 14 female (12.4%)\textsuperscript{19}. The first female President was Ellen Churchill Semple who served 1921-22. The next female president was not selected until 1984-85. 11 of the 14 women Presidents have served in the last 20 years (1996-2016).

The American Society of Professional Geographers, which was established in 1944 and merged with the AAG in 1948, had five Presidents, all of whom were men\textsuperscript{20}.

Between 1955 and 1966 the AAG appointed an Honorary President in addition to a President, the former had a year to prepare a presidential address and the latter carried out the executive duties of the organisation. All 12 people who served annual terms as Honorary President were male\textsuperscript{21}.

AAG Council

There are 19 members of the AAG Council\textsuperscript{22}. Over the last two decades, the ratio of men to women has fluctuated year by year with the extremes being 14 men/5 women and 6 men/13 women, as shown in Figure 6\textsuperscript{23}.

AAG Executive Directors and Staff

In 1963 the AAG established a national office with a full-time Executive Officer\textsuperscript{24}. To date eight different people have held this position, of which just one was a woman, who served from 1979 to 1984\textsuperscript{25}.

In 1963 the central office had two female full-time assistants, and two part-time assistants in addition to the male Executive Officer\textsuperscript{26}. Today there are 7 male and 16 female members of staff\textsuperscript{27}.

\textsuperscript{19} Source: AAG Handbook 2016, p314; William Morris Davis served three terms as President but as two were separate in time so he is counted twice.
\textsuperscript{20} Source: AAG Handbook 2016, p315.
\textsuperscript{21} Source: AAG Handbook 2016, p315.
\textsuperscript{22} The AAG Council comprises the Officers of the Association (President, Vice President, Secretary, Treasurer), Councilors (6 elected at large plus 1 elected from each regional division), the most recent Past President, and the Executive Director (ex officio).
\textsuperscript{23} Source: AAG Council minutes and internal documents, 1998-2016.
\textsuperscript{24} The first 3 office holders had the title of Executive Officer, the next was Executive Secretary, and since then the position has been Executive Director.
\textsuperscript{25} Source: AAG Handbook 2016, p315.
AAG Journals

Journal Editors, Associate Editors, Editorial Board members

AAG has four scholarly journals: Annals of the AAG, The Professional Geographer, the AAG Review of Books, and GeoHumanities.

The gender composition of those currently serving as editors, associate editors and on the editorial boards is shown in Table 1\textsuperscript{28}. Overall, 58\% of those serving in different roles are male and 42\% female.

Table 1: Gender composition of AAG journals editors and editorial board members, 2016

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editors</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Associate Editors</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Editorial Board</td>
<td>101</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>80</td>
</tr>
</tbody>
</table>

Considering the editorial boards separately, Figure 7 shows some difference ranging from the Annals of the AAG board being almost two-thirds male while the GeoHumanities board being almost two-third female\textsuperscript{29}.

Of the 49 people who have served as editors of the AAG journals from 1911 to 2016, 39 were male and 10 female. The distribution by journal is shown in Figure 8\textsuperscript{30}.

The first female was Evelyn L. Pruitt who served as editor of The Professional Geographer from 1958 to 1959.

It was more than 70 years from the founding of the Annals of the AAG that its first female editor was appointed: Susan Hanson who served from 1982 to 1987.

\textsuperscript{27} Source: http://www.aag.org/cs/staff, correct at 17 Nov 2016.

\textsuperscript{28} Source: Names of Editors, Associate Editors and Editorial Board members are on the webpages for each journal http://www.aag.org/cs/publications/journals, correct at 17 Nov 2016.

\textsuperscript{29} Source: ibid.

\textsuperscript{30} Source: AAG Handbook 2016, p316.
Authors of published material

A total of 535 authors contributed to items published in the four AAG journals across all issues of 2016. Of these, 351 (66%) were male and 184 (33%) were female. Table 2 shows some differences between the journals, with GeoHumanities being the most gender balanced with 48% male and 52% female contributors in 2016, and the AAG Review of Books being the most gender skewed with 80% male and 20% female contributors in 2016.

Table 2: Gender balance of contributors to items published in AAG journals, 2016

<table>
<thead>
<tr>
<th></th>
<th>Annals of the AAG</th>
<th>The Prof Geographer</th>
<th>AAG Review of Books</th>
<th>Geo Humanities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>140</td>
<td>107</td>
<td>55</td>
<td>49</td>
<td>351</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>42</td>
<td>14</td>
<td>53</td>
<td>184</td>
</tr>
<tr>
<td>Total</td>
<td>215</td>
<td>149</td>
<td>69</td>
<td>102</td>
<td>535</td>
</tr>
</tbody>
</table>

The gradual convergence towards gender parity over time from almost 100% authorship by men to 65-70% men is shown in Figure 9. Data was gathered from the two longest-running AAG journals, the Annals of the AAG and The Professional Geographer, taking volumes at decadal intervals (from 1956 to 2016) as a sample and snapshot.

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31 Source: Table of contents of each issue.
32 Source: Table of contents of each issue; the count included substantive content such as research articles, commentaries, technical notes, editorials, presidential addresses, and memorials, but excluded book reviews, association notes, correspondence, and editor reports.
Between 1951 and 2016, there were a total of 651 recipients of AAG Honors and Awards. Aside from the 9 recipients that were organizations, the individuals comprised 497 (77%) men and 145 (23%) women.

The distribution of recipients by the major categories of award is shown in Figure 10. By proportion, males were the recipients of 85% of AAG Honors, 71% of AAG Awards, 76% of AAG Book Awards, and 55% of AAG Research Grants.

Looking at recipients of honors and awards by decade, the growth of female recipients has matched the growth of male participants, as shown in Figure 11. By proportion, there is a gradual move towards gender balance; in the 1950s, 90% of recipients were male but by the 2010s only 64% recipients were male.

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33 Sources: AAG Handbook 2016, pp25-36 and lists on individual honors and awards webpages www.aag.org/cs/grantsawards; together these are not a completely comprehensive list of all AAG awards through time but represents a large sample.
Other Awards and Honors

Finally, in terms of geographers’ representation in the academy more widely, Table 3 shows the
gender balance of those elected to prestigious organizations or recipients of major fellowships. The gender imbalance here is stark, ranging from 83% to 95% male representation.

Susan Hanson was the first female geographer to be a member of the NAS and AAAS, both in 2000. She was also the first female to be a Guggenheim Fellow in Geography in 1989, and 10 of total of 14 women have been selected in the last ten years. The first Macarthur Fellow in Geography was selected in 2007.

<table>
<thead>
<tr>
<th>Table 3: Geographers nominated or elected to prestigious organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographer Members of the National Academy of Sciences (1863-2015)</strong></td>
</tr>
<tr>
<td>41</td>
</tr>
<tr>
<td><strong>Geographer Members of the American Academy of Arts and Sciences (1796-2014)</strong></td>
</tr>
<tr>
<td>55</td>
</tr>
<tr>
<td><strong>Guggenheim Fellows in Geography (1926-2016)</strong></td>
</tr>
<tr>
<td>120</td>
</tr>
<tr>
<td><strong>Geographer MacArthur Fellows (1981-2007)</strong></td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Further information

Quantitative studies

Where Are the Women? Accounting for Discrepancies in Female Doctorates in U.S. Geography

Women in Economic Geography

The representation of women in academic Geography: contexts, climate and curricula

Female Representation in the Discipline of Geography

Qualitative research

Changing Expectations and Institutions: American Women Geographers in the 1970s

Women, Gender, and the Histories of American Geography

Women’s Worlds at the American Geographical Society

Many Roads: The Personal and Professional Lives of Women Geographers

Women in Geography in the 21st Century
Focus Section (2000) in The Professional Geographer 52 (4): 697-758

Other references

Women’s Contributions to Geography and Cartography
A set of articles by Alice C. Hudson and Mary McMichael Ritzlin, Geography and Map Division, Library of Congress

‘Practically All the Geographers Were Women’
By Janice Monk (2008), presentation at Society of Woman Geographers Triennial

The full datasets used to compiled this report are available to download from the Disciplinary Data Dashboard:
http://www.aag.org/disciplinarydata/gender

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