

# **Diversity Committee Report**

## **Summer Policy Council Meeting 2008**

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This report provides an update to the 2004 analysis of membership demographics and summarizes several initiatives planned for the 2008 Athens Conference. Overall, diversity in the System Dynamics Society (SDS) is increasing along dimensions of gender and country of residence. Procedures for tracking demographic trends implemented in 2005 are yielding results consistent with previous analyses. Several areas are identified for further discussion and consideration. These include issues related to the selection of conferences and concerns about underrepresentation of younger members in SDS membership. For the 2008 Athens Conference, two activities are scheduled: “Diversity in the System Dynamics Society Roundtable” and “Sharpening Soft Skills for Better Modeling” workshop. We are also looking for new members to join the committee and would welcome any suggestions from the nominating committee or Policy Council.

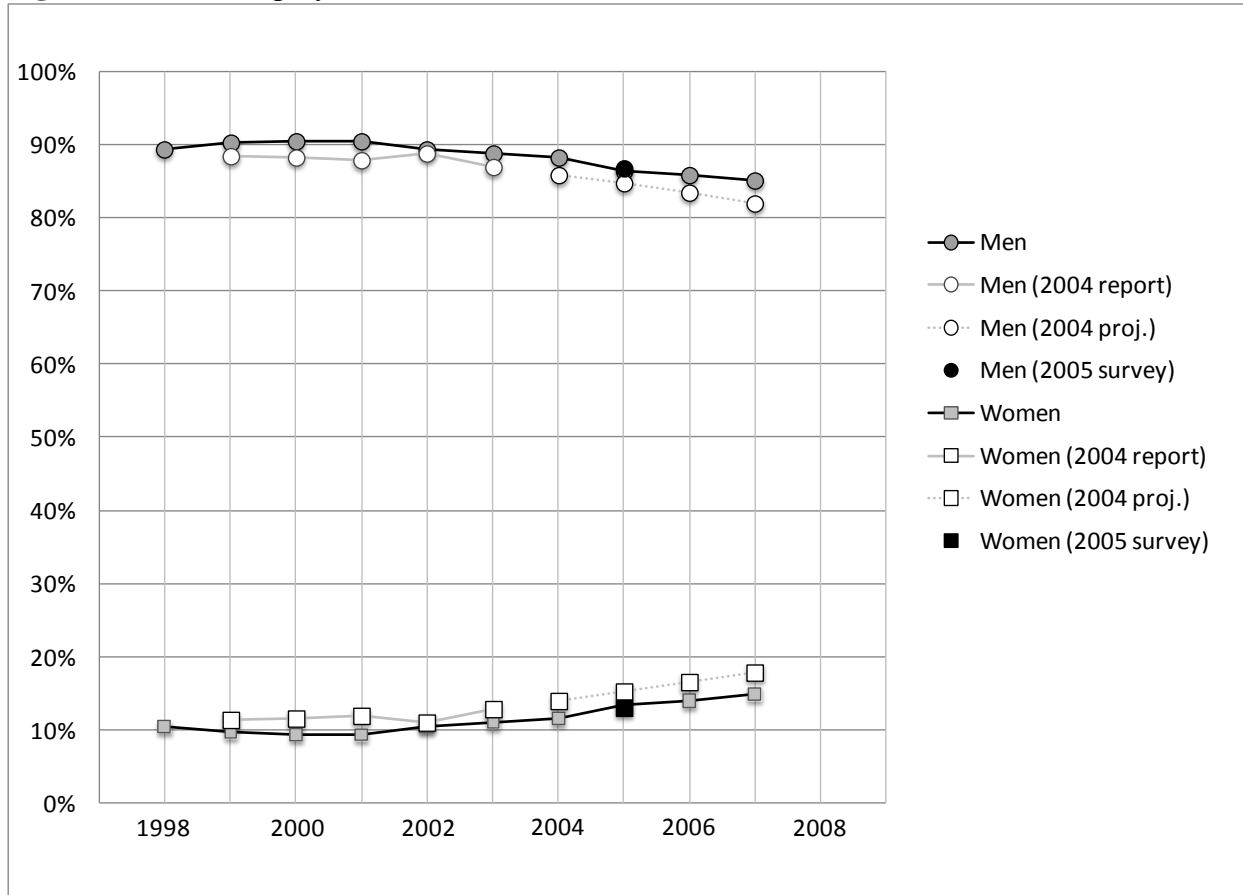
### **1. Membership Demographics and Trends**

In 2004, an analysis of the System Dynamics Society membership was conducted to estimate the proportion of women in the Society. In this earlier analysis, gender was imputed for over 98 percent of individuals in the membership database by examining first names. However, this analysis did not consider age demographics. To remedy this, a pilot demographic survey was distributed in the membership renewal forms in 2004 that included questions about gender, age group and student status. Approximately 34 percent of members returned completed surveys. Survey results were presented to the Policy Council at the Boston 2005 conference. One of the recommendations from the 2005 report was to modify the membership renewal form to collect demographic information along with name, mailing address, and other information. Nearly 83 percent of active members have now provided basic demographic information.

While the three methods used to generate demographic information differ, they yield similar estimates for the gender distribution of society membership. Figure 1 shows the general trends for percentage of men and women in the society based on the present membership data, 2004 report, projected trends from the 2004 analysis, and results from the 2005 membership survey. While the number of members providing information varies between the different methods and only recent members had the opportunity to provide demographic information, the similarity in the trends suggest that these data provide reasonable estimates of membership trends.

The last five years show a steady increase in the number of women in System Dynamics Society. The number of women in the society more than doubled between 2003 and 2007, while the number of men increased by approximately seventy percent during the same period (see Table 1). The result was an increase in the overall percentage of women in the society from 11.2 to 14.9 percent.

**Figure 1** Membership by Gender and Year



**Table 1** Membership by Gender and Year

Gender	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Women	28	28	33	38	49	60	69	99	124	142
% of known	10.5%	9.7%	9.4%	9.5%	10.5%	11.2%	11.6%	13.4%	14.0%	14.9%
Men	239	261	317	363	417	478	526	638	763	813
% of known	89.5%	90.3%	90.6%	90.5%	89.5%	88.8%	88.4%	86.6%	86.0%	85.1%
Unknown	328	326	327	318	332	342	339	313	183	197
% of total	55.1%	53.0%	48.3%	44.2%	41.6%	38.9%	36.3%	29.8%	17.1%	17.1%
<b>Total</b>	<b>595</b>	<b>615</b>	<b>677</b>	<b>719</b>	<b>798</b>	<b>880</b>	<b>934</b>	<b>1050</b>	<b>1070</b>	<b>1152</b>

**Table 2** Membership by Age Group and Year

	2005	2007
Under 25	1%	1.7%
25 to 29	8%	6.2%
30 to 39	28%	23.9%
40 to 49	21%	25.9%
50 to 59	30%	25.5%
60 or older	12%	16.8%
Total	100.0%	100.0%

**Table 3** Conference Attendance by Gender and Year

Gender	2005	2006	2007
Women	52	55	70
% of known	17.8%	21.3%	20.3%
Men	240	203	275
% of known	82.2%	78.7%	79.7%
Unknown	109	73	102
% of total	27.2%	22.1%	22.8%
Total	401	331	447

The new membership information includes information about the age groups of members. The groupings were based on the 2005 pilot survey as shown in Table 2. Comparison between the present membership data and 2005 pilot survey shows roughly similar distributions by age. Membership tends to be evenly distributed between ages 30 and 59, but lagging in the under 30 groups. This is significant because the ratio of men to women is lowest in the under 30 group. Under 30, the ratio of men to women is approximately 2:1, whereas for members over 30 it is nearly 7:1.

Women represent a higher proportion of members attending conferences. Specifically, 20.3 percent of members attending conferences were women in 2007 while women represented 14.7 percent of the overall membership (see Tables 1 and 3). In contrast, 79.7 percent of members attending the 2007 conference were men even though 85.1% of the members were men. Or put differently, 1 in 2 women members attended the conference in 2007 versus 1 in 3 men.

Students represent about 15% of the membership. Doctoral students account for two-thirds of this (10% of membership), followed by masters level

students (3%), and undergraduates (1%). Age does not appear to correlate with student status, but this is partly explained by the fact that the majority of students are at the doctoral level. Doctoral students do, however, represent more than half the membership in the 25 to 29 age group.

The most complete demographic information about members comes from their country of residence. The largest proportion of members lives in the United States, followed by the United Kingdom, Germany, Netherlands, Australia, and Switzerland (see Table 4). Membership has generally increased in most countries, with a few exceptions including Japan, Egypt, France, Turkey, and Greece. Table 4 also lists countries with chapters and recent conferences (since 1998).

In general, the new approach to collecting demographic information is effective for basic reporting. Trends appear to be generally consistent across methods with no indication of biases from missing data. However, there are some limitations in the way data are structured for variables that change (i.e., student status and age). In the present format, only the most recent information available is reported. Thus we have accurate snapshots for the current year, but are limited in being able to use the same data to examine trends retrospectively. However, this can readily be handled without needing to restructure the membership database. One option is to simply produce annual reports of membership demographics.

**Table 4** Distribution of Membership by Country and Year<sup>1</sup>

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Recent conferences
United States	265	255	277	306	306	357	362	448	422	482	Atlanta, 2001; New York, 2003; Boston 2005, 2007
United Kingdom	53	55	60	64	75	77	92	85	80	78	* Oxford 2004
Germany	14	21	23	25	30	37	42	49	54	59	*
Netherlands	15	17	21	22	24	30	34	35	40	44	Nijmegen 2006
Australia	20	26	28	27	26	26	31	34	34	41	*
Switzerland	14	14	19	20	26	27	34	32	34	31	*
Japan	29	32	32	34	31	34	31	29	27	28	*
Canada	17	20	19	21	24	27	28	26	24	25	Québec City 1999
Norway	13	13	18	17	18	21	26	25	26	24	Bergen 2000
Italy	23	18	20	18	24	22	20	21	22	21	* Palermo 2002
Spain	16	16	17	15	19	13	17	17	22	20	
Brazil		6	5	5	9	15	15	21	21	18	*
China		5	5				5	6	19	16	*
India						6	5	6	11	14	
Colombia					5	6	5	6	7	12	*
Mexico		5	6	9	10	9	10	11	13	12	*
New Zealand	7	7	7	7	5	5	7	10	11	12	Wellington 1999
Croatia								8	13	11	
Sweden				7	12	14	15	12	10	11	
Indonesia	6	10	8			7	7	8	9	10	
Korea	5	8	8	8	10	9	11	8	12	10	
Russia								9	7	10	*
Belgium		5	5	6	8	8	10	11	14	9	
Egypt					17	12	8	9	8	9	*
France		5	7	7	12	12	10	10	8	9	
Pakistan								10	9	9	*
Taiwan	9	7	8	6	8	7	6	11	11	9	
Malaysia	7						10		5	8	
South Africa						6	5	6	6	8	
Iran										7	
Poland								6	7	7	
Turkey		12	7	7		5	6	7	6	7	Istanbul 1997
Chile										6	*
Greece			5	6	9	13	13	8	7	6	* Athens 2008
Portugal	5		6	7	8	7	7	9	6	6	
Finland			5		5	6	6	5	6	5	
Denmark				5	5	5	5	5	5		
Singapore						5	5		5		
Argentina	7	7	6	5							*
Czech Republic								5			

<sup>1</sup> Cells with fewer than 5 members have been removed to protect the privacy of individuals. Countries with fewer than 5 members for all years have been excluded from the table.

\* Has a country or regional chapter.

Overall, membership is growing with increasing diversity in both the gender and geographic distribution of members. While no trends are available for age distributions, the underrepresentation of younger members and students below the doctoral level may be a concern that warrants further discussion. Specifically, younger members tend to reflect greater gender diversity and represent the future of the Society. However, aside from discussions about K-12 education and undergraduate programs, very little attention has been devoted to whether increasing membership of younger members should be a goal of the System Dynamics Society or diversity committee.

Regarding geographic diversity, it may be beneficial to consider the distribution of membership and trends, previous conferences, and chapters in considering selection of future conferences. Of particular note, there have been no recent conferences in developing countries. Nor have there been any recent conferences in Latin America or Africa. It might also be useful to consider mechanisms for promoting country chapters as a means to growing and diversifying society membership.

### **3. Diversity Forum**

The Oxford 2005 Policy Council Meeting initiated a series of discussions about diversity, which motivated a diversity forum at the 2005 Boston conference. The 2005 forum provided a unique opportunity to hear members' views on diversity. As part of the 2008 Athens conference, we will facilitate a diversity roundtable scheduled for Tuesday from 1:30 to 2:30, "Diversity in the System Dynamics Society Roundtable". A summary of this discussion will be provided to the Policy Council.

### **4. Pilot Diversity Workshop**

In an effort to help increase the capacity of the System Dynamics Society membership for engaging discussions related to human diversity, we will pilot a workshop this year as part of the Athens conference titled, "Sharpening Soft Skills for Better Modeling". The focus of this workshop would be on developing cross-cultural competence for group model building and facilitation skills. In doing so, the workshop will also provide a framework for thinking about diversity issues within the society.