# To: SDS Policy Council From: Navid Ghaffarzadegan Subject: Estimate Impact of Proposed Tiered Dues Structure on Society Membership Income (Gross and Net)

### Date: June 11, 2007

### 1- Results:

1-1- Summary of annual gross revenue for different scenarios (discussed below).

Scenario 1: \$ 77,228 Scenario 2: \$ 80,456 Scenario 3: \$ 75,317

1-2- Comparison of "Gross" and "Net" revenue in the worst-case scenario with actual data from last two years is illustrated in Table-1.

	Scenario 3 for 2007	2006	2005	
Gross	75,317	79,425	80,190	
Net	50,004	47,105	48,300	

# Table 1: Comparison of estimated gross and net revenuewith actual data for 2005 and 2006 in dollars

Almost no change in gross revenue and just a slight increase in net revenue is predicted.

## 2- Scenarios:

<u>Scenario 1:</u> System Dynamic Society members' revenues depend on what country they live (e.g. Iran). I assume they earn equal to average people in their country. I used GDP per Capita (reported by World Bank) as their annual income, and calculated their membership fee.

<u>Scenario 2</u>: Society members' revenues depend on their country and the sector they are working in (e.g. An Iranian working in Academia). I assume:

- Professional distribution is the same for all countries and it is equal to the results of our member survey: i.e. 25% of members are students, 18% professors, 38% working in private sector, 14% working in public sector, 3% in military, and 2% others.
- 2) Salary distribution follows this pattern in all countries: faculties receive
  1.5 times of average salary of their countries. This ratio for students,
  people from military, private sectors and public sectors are 0.33, 1, 2, 1.5
  respectively. For others, we assume they receive equal to average people.
  \*: This pattern of distribution is similar to US salary distribution.

<u>Scenario 3:</u> Same as second scenario, but assuming people always underestimate their revenue 20% less than their actual revenue.

In all scenarios, I have used the average membership number from 2003 to 2006. Society members come from 77 countries. The total number of members is equal to 1013. It means that I have assumed total members of SDS is given, and changes exogenously (!) independent from what we are going to set the membership fee. Scenario 3 mitigates this assumption, considering people, in the worst case, will underestimate their revenue, as a result of change in membership fee.

#### **3- Inputs:**

Salary Range		Paper SDR & eSDR	eSDR only
from	to	-	-
0	7999	N/A	15
8000	19999	45	35
20000	39999	60	50
40000	69999	95	85
70000	99999	120	110
100000	and above	140	130

3.1. Membership fee:

We assume 50 percent of members will subscribe electronic-only.

3.2. GDP per Capita and number of members from each country are used as inputs to the model.

Data shows our revenue is strongly depended in our US members. Almost half of the members are from United States, and our revenue is very sensitive to how many people from the US are members and how much they pay for their membership. So almost any new model that increases our revenue from our US members will result in a rise in Society revenue.

**4- Note:** the model can easily be run for other inputs. Web address of the file: <u>http://www.systemdynamics.org/PolicyCouncil/revenueprojection.xls</u>

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