**PROFILES**

We identify the profile structures regarding the positions of the FB and MS winners by a four-digit number. The first and second two numbers show the cardinality of the upper counter set of the FB and MS winners, respectively, across the two voters.

Ex: 0324 (a profile at which the FB winner is top-ranked by one voter and 4th-ranked by the other while the MS winner is 3rd- and 5th-ranked respectively by the two voters.)

**EMPLOYED PROFILES IN OUR SURVEY**

* **Q1** = 0324

As Q1, we randomly picked one of the profiles Example 1 – Example 30 in section 4.4 of the paper at overleaf.

* **Q2** = 0657

As Q2, we randomly picked one of the profiles Example 31 – Example 60 in section 4.4 of the paper at overleaf.

* **Q3** = 1435 at which the FB winner is one of the Borda winners, i.e., FB(P) ⊂ B(P).

As Q3, we randomly picked one of the profiles Example 61 – Example 90 in section 4.4 of the paper at overleaf.

* **Q4** = 3657 at which the FB winner is also the Borda winner, i.e., FB(P) = B(P).

As Q4, we randomly picked one of the profiles Example 91 – Example 120 in section 4.4 of the paper at overleaf.

* **Q5** = 3657 at which the FB winner is not a Borda winner, i.e., FB(P) ∩ B(P) = ∅.

As Q5, we randomly picked one of the profiles Example 121 – Example 150 in section 4.4 of the paper at overleaf.

* **Q6** = 0324

As Q6, we randomly picked one of the profiles Example 151 – Example 180 in section 4.4 of the paper at overleaf.

**THE SURVEY**

6 profiles (Q1-Q6 in random order) + one of the appeared profiles is randomly picked as the 7th profile in a subject’s menu.

+

S. Schwartz Values Survey

+

Demographics (gender, undergrad study, parent’s education, etc.)

**OUR DATA:**

So far, we have 328 subjects. (We keep the survey link active until the end of July, so the observations might be higher in number.)

Of the 328 subjects, 270 subjects are consistent, i.e., gave the same answers to the repeated profiles in their menus. *(Note: To be frank, this is really a high number, which means that the students were careful about their answers. Amazingly nice!)*

Here are the subjects’ choices:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** |
| all subjects | **FB** | 255 | 238 | 271 | 273 | 275 | 266 |
| **MS** | 73 | 90 | 57 | 55 | 53 | 62 |
|  |  |  |  |  |  |  |  |
| consistent subjects | **FB** | 223 | 213 | 233 | 233 | 236 | 219 |
| **MS** | 47 | 57 | 37 | 37 | 34 | 51 |

**RESULTS**

Below are the significance results for the null hypothesis that *the distribution of the subjects’ choices over FB and MS across the “compared” profiles*. The highlighted results are the statistically significant ones.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All subjects | | Consistent subjects | |
|  | Statistic | P value: | Statistic | p-value |
| **Q1vsQ2** | 51004 | 0.1249 | 35100 | 0.275772 |
| **Q1vsQ3** | 56416 | 0.117432 | 37800 | 0.235701 |
| **Q1vsQ4** | 56744 | 0.076439 | 37800 | 0.235701 |
| **Q1vsQ5** | 57072 | 0.047654 | 38205 | 0.117624 |
| **Q1vsQ6** | 55596 | 0.288588 | 35910 | 0.655751 |
| **Q2vsQ3** | 59204 | 0.00202 | 39150 | 0.023371 |
| **Q2vsQ4** | 59532 | 0.001 | 39150 | 0.023371 |
| **Q2vsQ5** | 59860 | 0.000472 | 39555 | 0.00826 |
| **Q2vsQ6** | 58384 | 0.009632 | 37260 | 0.51925 |
| **Q3vsQ4** | 54120 | 0.835969 | 36450 | 1 |
| **Q3vsQ5** | 54448 | 0.676383 | 36855 | 0.703048 |
| **Q3vsQ6** | 52972 | 0.612926 | 34560 | 0.103253 |
| **Q4vsQ5** | 54120 | 0.833605 | 36855 | 0.703048 |
| **Q4vsQ6** | 52644 | 0.475792 | 34560 | 0.103253 |
| **Q5vsQ6** | 52316 | 0.355933 | 34155 | 0.0448 |
|  |  |  |  |  |

**RESULTS regarding the questions we posted** (see section 4.1 at the paper)

**1. Does high δ favor MS?**

• Q1=0324 vs Q2= 0657

Result: NO.

**2. Does it matter for the FB winner to be top-ranked by a voter?**

• Q1=0324 vs Q3= 1435 with FB(P) ⊂ B(P)

Result: NO.

**3. Does the best position of the FB winner matter?**

• Q1=0324 vs Q4=3657 with FB(P)= B(P)

Result: YES (overall).

*(Note: For the consistent subjects, the same result does not prevail. However, we will look closer at the repeated profiles of the consistent subjects, which might change the result for the consistent subjects or the power of the result.)*

**4. Does FB(P) = B(P) favor FB?**

* Q4=3657 with FB(P)= B(P) vs Q5=3657 with FB(P) ∩ B(P) = ∅

Result: NO.

**5. Does d(λp(y))=max MS(P) – min MS(P) matter for given δ?**

• Q1=0324 vs Q6= 0627

Result: NO.

**6. Do people select Borda rather than FB or MS?**

• Q3= 1435 with FB(P) ⊂ B(P) vs Q5= 3657 with FB(P) ∩ B(P) = ∅.

Result: NO.

**7. Does showing profiles in favor of MS first favor MS choices in other profiles?**

Not tested yet.