Biostatistics 203A – Fall 2023
Final Project Submission

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Data Subset Number:2

Written responses to items I, II, III in Step 2

I. Of all the meeting locations, which one corresponded to the highest percentage of respondents endorsing Excellent relationship quality?

Answer: school corresponded to the highest percentage of respondents endorsing Excellent relationship quality, which is 71.73%

II. Of all the different routes of introduction, which one corresponded to the highest percentage of respondents endorsing Excellent relationship quality?

Answer:classmates corresponded to the highest percentage of respondents endorsing Excellent relationship quality, which is 65.77%

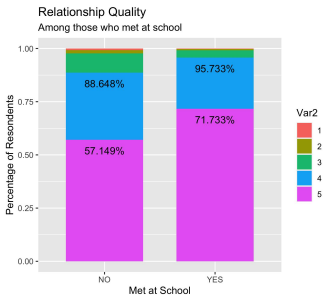
III. What percentage of respondents whose partners were a similar age endorsed Excellent relationship quality?

Answer: 61.09% of respondents whose partners were a similar age endorsed Excellent relationship quality

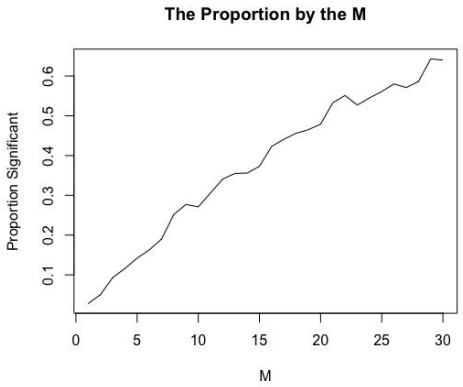
Did this percentage differ significantly ($p < 0.05$) relative to respondents whose partners were not a similar age?

Answer: p=0.0014<0.05, so this percentage differ significantly ($p < 0.05$) relative to respondents whose partners were not a similar age.

Proportional (100%) stacked bar graph generated in Step 2



Line graph generated in Step 3



2-3 sentences you wrote as part of Step 3

Describe the results you obtained and how they may have implications for situations in which multiple hypothesis tests are being conducted.

the proportion of the *G* replications that resulted in at least one statistically significant result is 0.452, the proportions obtain from each iteration of the process are [1] 0.028 0.050 0.093 0.116 0.142 0.163 0.190 0.252 0.277 0.271 0.306 0.341 0.355 0.356 0.373 0.423 0.441 0.456 0.465 0.479 0.533 0.551 0.527 0.545 0.561 0.580 0.571 0.586 0.643 0.640. As M increases, the proportion of statistically significant results also tends to increase. This suggests that when conducting multiple tests, the chances of finding at least one significant result by chance alone also increase.