Does a project studying aggregated observational data on human subjects (say, the total number of road accident injuries per state per year) need Institutional Review Board (IRB) approval to receive federal funding?

- A. "Yes, this project has human participants."
- **B**. "No, a project that uses existing data and does not work directly with human subjects does not require IRB approval."

Can you think of an example of a project that uses existing data, does not ask for human participants to perform anything, yet needs IRB approval and might not get it? Suggest some ingredients which could lead to successful collaboration between two statisticians and/or between a statistician and a scientist.

"Be optimistic and responsible when facing difficulties. Be fair to consider everyones interest when the research project is successful. Be willing to help others."

"An important element is a mutual understanding and continued communication over the responsibilities and expectations of each side. All parties in the collaboration need to have a firm understanding of the work they are responsible for doing and the goals they are trying to achieve. This is often helped by having a lead researcher take on some administrative and coordination roles."

Collaborative group sizes can be small or large. Identify some strengths and weaknesses of larger collaborative groups relative to smaller collaborative groups.

"Strength: it is easy for large groups to apply for great grants and to deal with huge & complex research projects. For example, only a huge group could accomplish the 'Manhattan project'."

"Weakness: it is hard to organize a large group, to deal with the personal relationships. Also, large groups tend to do some normal and low risky research projects; instead, a lot of small groups achieve risky and novelty work." "In larger collaborative groups, there are more people with different background and skills. So the group can come up with more diverse and creative ideas and solutions to their project compared to a small group. However, since there are more people in the group and usually each part of the project is assigned to each researcher, they may not go over every detail of the project. (assuming other people in the group did a good job) Also, there may be lack of communication about their project between group members. This may lead to errors in the project."

## Some practical considerations about group size

google: The Mythical Man Month

or, google: The free rider problem

or, think about incentive structures in large vs small groups (also, think about incentive structures for the group leader deciding who to add to the author list)

or, think about the right group size for your favorite style of research

What are the advantages and disadvantages of being a conscientious collaborator who (i) makes careful, thoughtful but timely contributions to the project; (ii) reads widely and takes the time to understand as much of the project as possible.

"Advantage: when the collaborator takes effort to understand the project, it will facilitate the progress of the project since both of researchers have a clear idea about what is going on. And better understanding from collaborator could generate more ideas, and avoid some potential mistakes. Disadvantage: I can not think of any obvious disadvantages... Maybe it takes more time for the collaborator to understand the project such that the project would go a bit slower."

"The advantages are obvious: higher chances doing good work that benefits the field, improving your reputation as a researcher and collaborator, making close connections with other researchers, learning about new areas, etc. The disadvantage is also obvious: all of those take significant amounts of time, and time is generally the biggest limit on how much a researcher can do in a day/month/career."

"One of the advantages of joining a project and then making a minimal contribution is that you can be a part of some big projects by doing little work. Also, this way, you can increase your publications. I think one cannot say this is irresponsible since you did put in effort even though it is a small part. However, the behavior in the following example is not responsible. If you accept coauthorship on some paper, you should learn every aspects of it."

IT IS USUALLY ASSERTED THAT ALL AUTHORS SHOULD BE RESPONSIBLE FOR THE WHOLE PAPER, IF IT HAS THEIR NAME ON IT. IS THIS REALISTIC? IF NOT, WHAT SHOULD WE DO?

Would you expect a PhD thesis adviser to act like the conscientious collaborator of the previous question on your own thesis research?

- **A**. "Yes I expect that and prefer such adviser."
- B. "I would not expect that. I think it is mainly the PhD student himself to carry out the progress of his thesis, an advisor could give some ideas or guidance, but is not obliged to read widely or put decent amount of time on understanding the whole thesis or every detail"
- **B**. "Conscientious, as much as possible, although it may depend somewhat on the overlap between the interests of the adviser and advisee."

What are some advantages and disadvantages of joining a project and then making a minimal contribution? Can this be responsible behavior? Consider the following example: you help a scientist carry out a statistical procedure and you help write up the paragraph describing it; you accept coauthorship on the resulting paper, while ignoring all other aspects of the paper.

"It is good to take up a project that you can participate in entirely and help with the complete thing. It is a matter of responsibility if you are not aware of the project where you are accepting co-authorship. however if as mentioned you are working on a small procedure only, its best not to be coauthor. it is probably better if the author acknowledges your contribution in the paper but not take the co-authorship."

"Advantage is getting an authorship at minimal effort. However if and when something goes wrong in the paper the statistician may be called into question. It is debatable whether, and how deep a statistician should go into the field in which s/he is helping with the analysis."

Is the proper price of an object

- (i) the marginal cost of production, plus some modest markup.
- (ii) the amount that a buyer is willing and happy to pay.

What is the relevance of this question to the RCRS issue?

How can one maintain a reasonable level of agreement within a collaboratoration on the expected involvement of each collaborator?

keep talking...

"This can be done by clearly discuss the duties, expectations, and possible rewards of the project before getting involved in the project.

Communication is always helpful to avoid such conflicts in some ongoing projects."