Topic	**Undergraduate Project Supervision**
Issues for consideration	• **Project allocation**
Faculty	Natural Sciences
Department	Chemistry
Name	John de Mello and Ian Gould
Email address	j.demello@imperial.ac.uk and Ian Gould
Description of the approach taken	Accommodating student (and staff) preferences during the matching of students with staff supervisors of final year research projects has long been a challenge in Chemistry. Previously, this had been achieved strictly on the basis of student grades (highest ranked student gets 1st choice *etc.*) but in practice, for a class of ~100 required ranking by each student of at least their 6 preferred supervisors/projects and the lowest ranked students could receive their 6th choice – leading to some student dissatisfaction. John de Mello developed an allocation protocol based on the Hungarian algorithm, which is a combinatorial optimization algorithm that allow weightings for both student and supervisor preferences. In practice, this has allowed each student to rank just their 3 preferred supervisor/projects and all students receive at least their 3rd choice. See attached **Appendix** for a presentation of the method and its features.
Benefits of this approach	Both staff and student preferences are accounted for and the balance between these can be varied as desired. Students need to select and rank fewer potential preferred supervisors/projects and overall are more likely to receive their higher ranked choices than previous methods had allowed. The method requires minimal administrative oversight.
Ways in which your approach has been informed by student engagement	Student feedback on the method has been positive. There has been some debate about the transparency of the algiorithm and how the student *vs* staff choices are weighted.
Advice for others	The method has been in use by Chemistry for 2 years now and the method could easily be adapted to work for other Departments in College.

Maximum 400 words

You will receive an email with a link to a web-page where you will be asked to make your selection

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Name of student

First Name   Last Name

Please enter below in order of preference the names of eight potential supervisors with whom you would like to undertake a research project.

IMPORTANT: You will only be able to submit your preferences **after you have selected eight different supervisors**.

Please note, before completing this form, you should speak to each of your chosen supervisors to discuss potential projects. (They are unlikely to rank you highly if you have not made the effort to meet with them).

Please make your selections by 5pm, Friday 18th March at the latest. Failure to meet this deadline with result in a selection being made for you

1st Choice	Anna_Barnard
2nd Choice	George_Britovsek
3rd Choice	Michael_Bearpark
4th Choice	Chris_Braddock
5th Choice	Silvia_Diez_Gonzalez
6th Choice	Chris_Cordier
7th Choice	Oscar_Ces
8th Choice	Tom_Bond

Submit

Staff members will receive an email, asking them to rank students that have selected them.

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Name

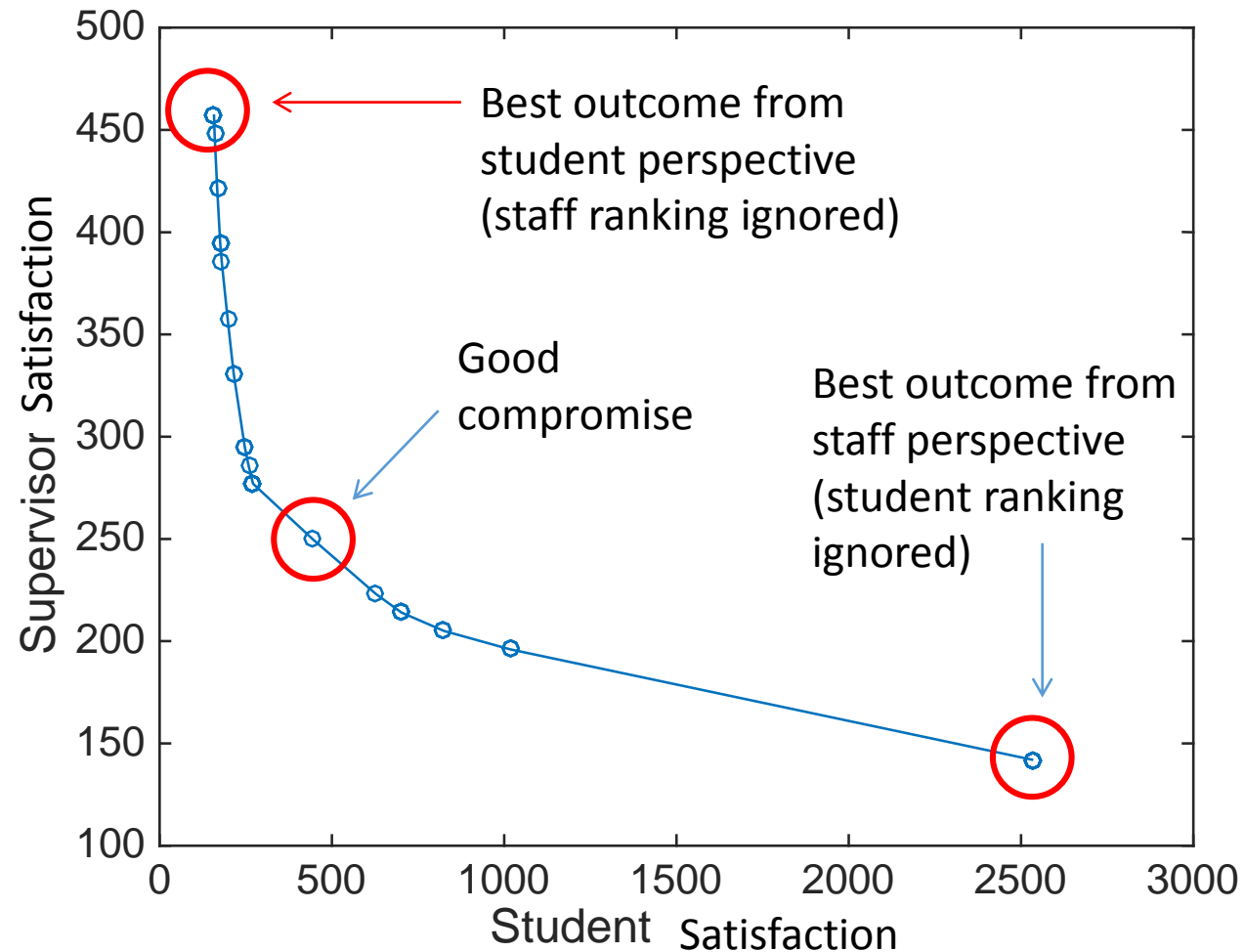| Dr	A
First Name	Last Name

The following students have selected you as a potential supervisor for their fourth year research project. If you wish to do so, you may rank them in order of suitability for the projects you have on offer, with "1" being the most suitable, "2" being the second most suitable and so on. Once you have completed your ranking, please scroll to the bottom of this screen and press the "Submit" button. You should make your ranking by 5pm on Monday 21st March . If we have not received a response by this time, we will assume that you consider all students equally suitable for projects in your group.

Please note, if you consider all candidates to be equally suitable and therefore wish to express no preference, then there is no need to complete this form.
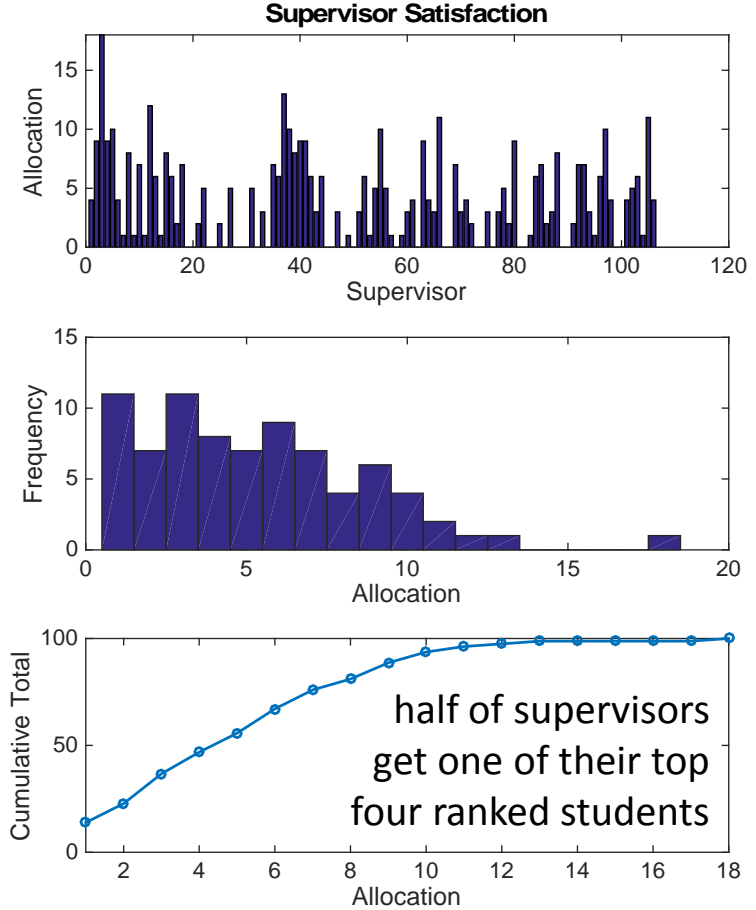
Jake_Johnson

Sue_Sheppard

Peter_Potterly
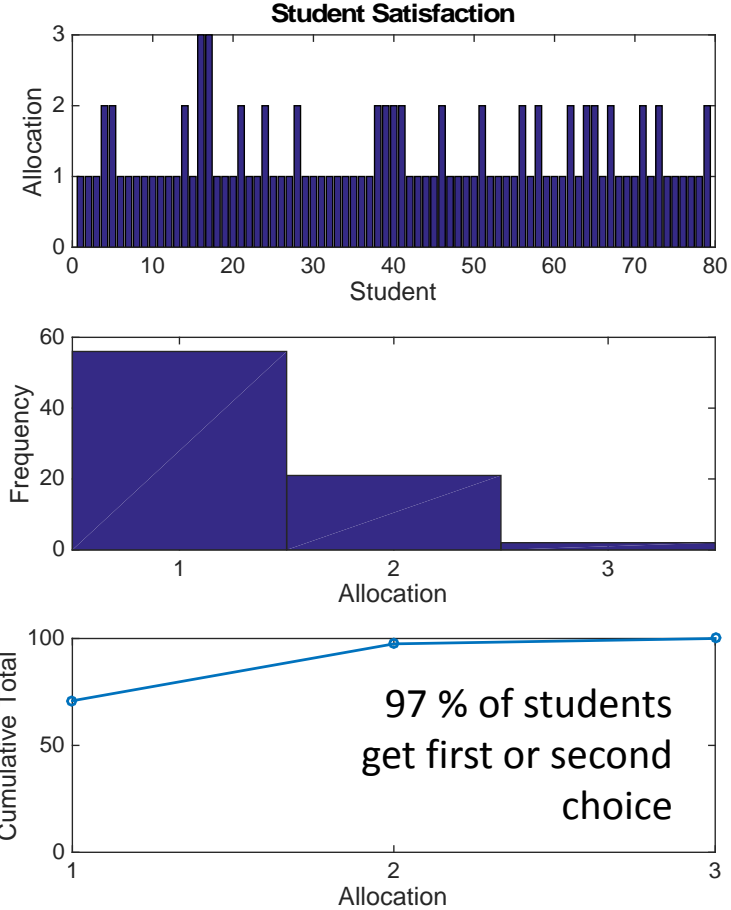
Dirk_Davidson

Will_Williamson

Roger_Redford

Project allocations are made algorithmically, using an algorithm that aims to get the best outcome **for the year as a whole**
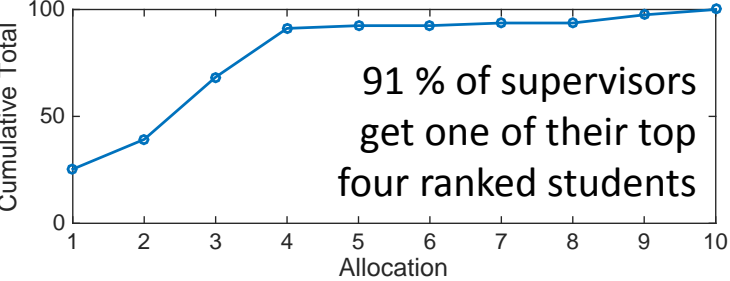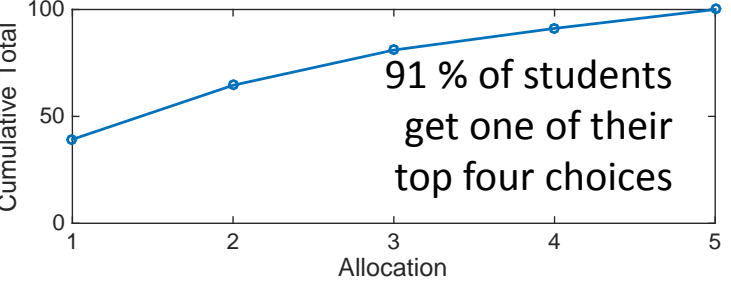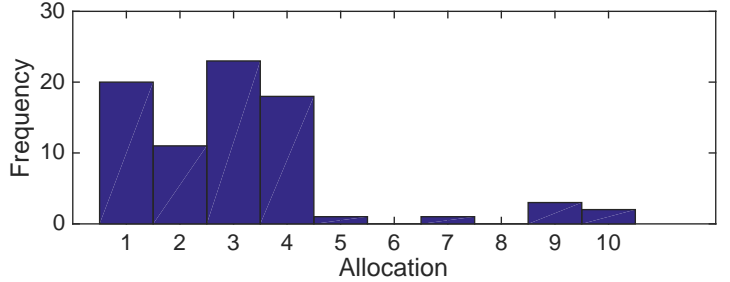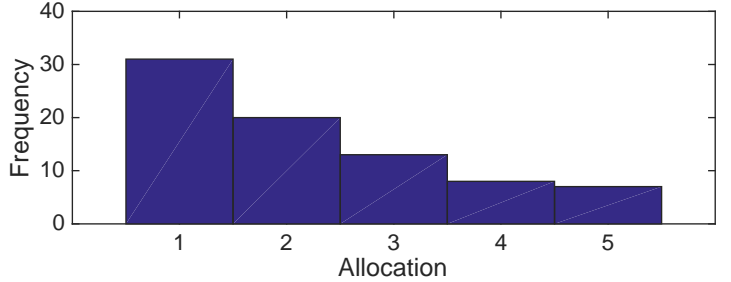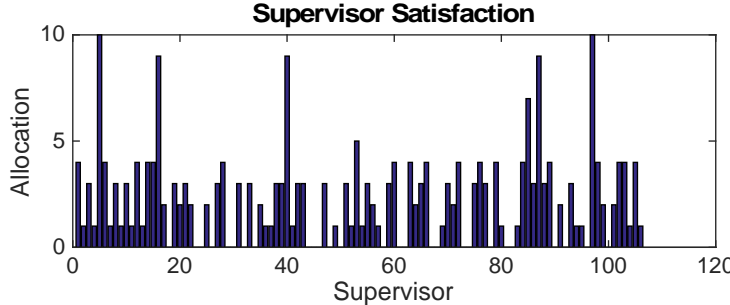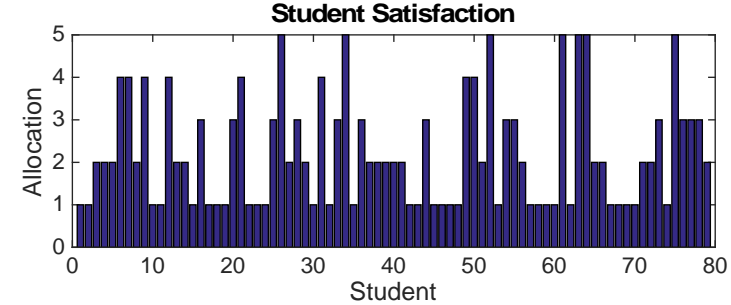
The algorithm determines different solutions depending on the weighting placed on staff and student preferences

Best outcome from student perspective
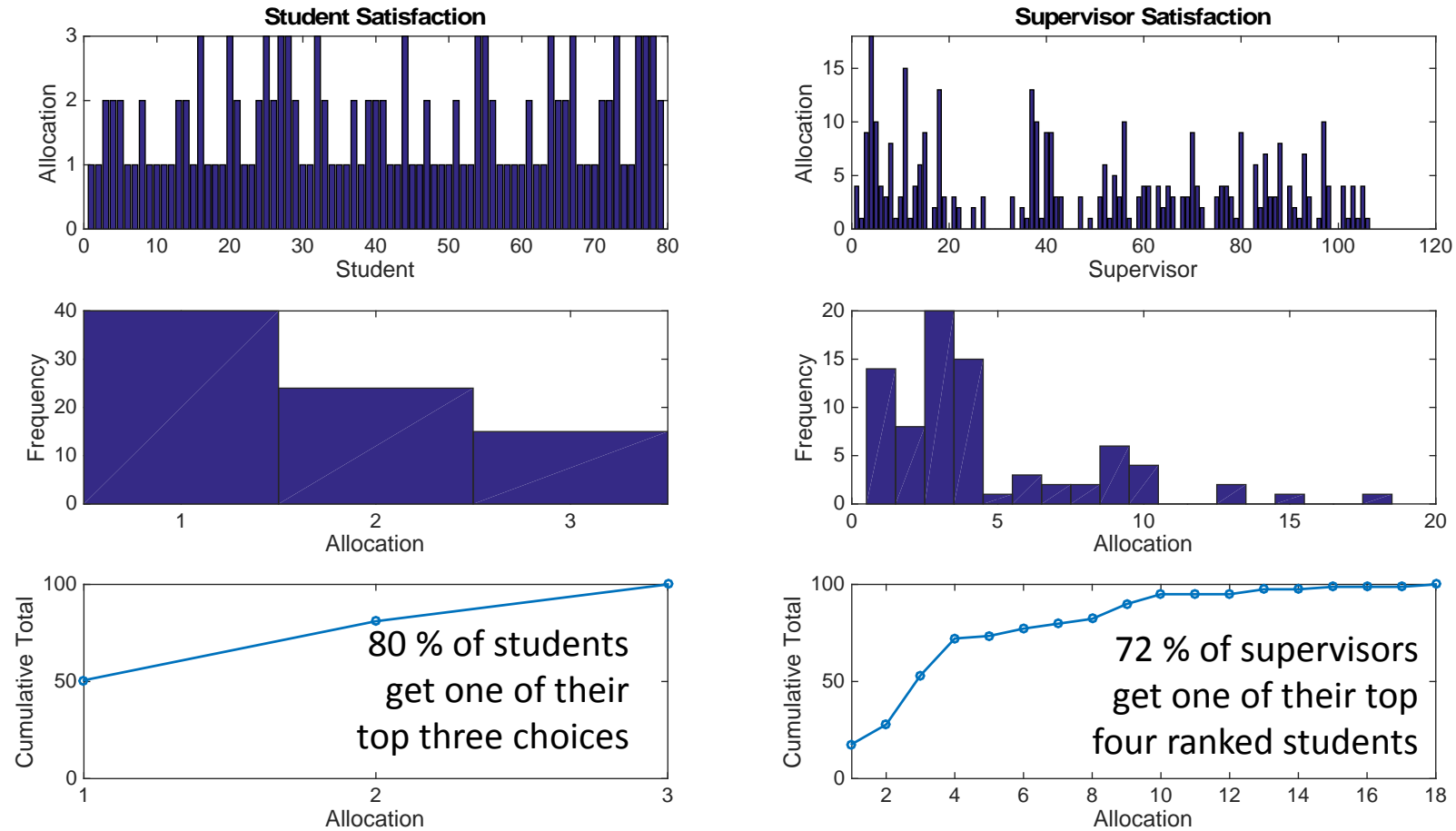
Best outcome from staff perspective

91 % of students get one of their top four choices

91 % of supervisors get one of their top four ranked students

Good compromise

Student Satisfaction

Supervisor Satisfaction

80 % of students get one of their top three choices

72 % of supervisors get one of their top four ranked students

Experience suggests that you should get one of your top three choices, but this depends on what selections you make as a year group!