

CLOSEOUT FOR M94030008

On March 9, 1994, the complainant¹ sent OIG and the NSF program officer² a letter alleging that a journal paper³ contained data that was either fabricated or falsified. The paper was authored by three professors, subject 1,⁴ subject 2,⁵ subject 3,⁶ and subject 4, the graduate student.⁷ The complainant said that he notified OIG because two of the authors had NSF funding. The complainant claimed that a scientist's attempts to reproduce the data, using the same data and mathematical techniques, were unsuccessful. He provided the scientist's results and the scientist's comparison of his results to the results claimed in the paper. The complainant also furnished the scientist's estimate of the probability that the authors actually obtained the results they claimed and concluded that the authors did not obtain two thirds of the main results they reported. He was concerned because if these results are false, they could distort the research priorities of the field, a concern he felt was justified because "the original paper has been recently republished as a classic study."

The complainant stated that the scientist had attempted to have a Comment published in the same journal that published the original paper. The journal's editor did not think it was necessary because a previously published Comment by different authors had already addressed the problem the scientist was raising. The scientist had also attempted to clarify the issues directly with the authors. The complainant claimed that their (the professors') response to the scientist indicated that data considered unavailable had been used, contrary to their statements in the paper and their published Response to the Comment by the different authors.

OIG reviewed the subjects' NSF PI history. Of the four subjects, subjects 1-3 had submitted proposals to NSF and subject 1 had received funding, apparently related to this research. Subject 1 had listed the journal paper in several of his proposals as having been supported by NSF.

OIG asked the program officer to assess the validity of the allegations raised by the complainant and if he thought the subjects' response to the scientist contradicted their published results. He agreed with the general substantive analysis of the scientist and also thought the subjects' response indicated that "the[ir] own statements substantially support the allegations" raised in the complainant's letter.

OIG mailed letters to subjects 1-3 asking them to explain the discrepancies in the results presented in their paper, the allegations of the complainant, their response to the scientist, and the relation of the paper to their subsequent proposals. Their responses were consistent and indicated that

¹ (footnote redacted).

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⁴ (footnote redacted).

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⁷ (footnote redacted).

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- 1) only subject 1 had obtained any NSF funds,
- 2) the NSF proposals that followed the publication of the paper were not dependent on it, and
- 3) the professors were responsible for designing the scope of the project and writing the manuscript and the graduate student was responsible for the writing and execution of the computer code that produced the results.

The professors composed the response to scientist because the graduate student had transferred to another university and had refused their requests for assistance in directly addressing the allegations raised by the complainant. Their response to the complainant was consequently based on their interpretation of how they thought the graduate student had calculated the results.

OIG contacted the graduate student who responded that he was indeed responsible for the writing and executing of the numerical codes used to produce the published results. He explained that while responding to our letter, he noticed a significant miswording in the paper. The methodology as described in the original paper was not consistent with the method he had actually employed in his simulations. The graduate student explained how what he really did differed from what one might interpret from a reading of the paper. He offered to submit a correction to the editor of the journal that published the paper.

OIG again consulted with the program officer. He explained that the graduate student's explanation was plausible, but that it then made some of the conclusions not as significant. He also agreed that the figures and tables would have to be better explained to be consistent with the revised procedure.

Regarding subject 1's claim that the research presented in the paper was supported by NSF, we learned from him that it had already been completed and presented at a conference by the time NSF received his proposal related to this research. In the prior support section of his subsequent NSF proposals, subject 1 had merely described related research, rather than research that was strictly supported by NSF. The graduate student also said that he had received no financial support from NSF and was the recipient of a three-year University Fellowship at the time. He apparently worked primarily with subject 3 and left the university after his Fellowship expired.

All subjects agreed that the graduate student was responsible for the numerical simulations and that he had received no funds from NSF. OIG decided that it did not have jurisdiction over this case. OIG agreed, however, with the graduate student's offer to write a correction and submit it to the publishers of the journal and the publishers that made the reprinting. OIG suggested that the graduate student coordinate his response with the other authors (subjects). OIG also cautioned subject 1 to exercise more care in the preparation of his prior support section in his NSF proposals.

This inquiry is closed and no further action will be taken on this case.

cc: Staff Scientist, Deputy AIG-Oversight, AIG-Oversight, IG