4b.7 Partnerships & internships with external agencies & off-campus units in teaching and research

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Teaching and research links with national granting agencies: Many of our faculty receive research support from national granting agencies such as NSF and NASA, and support undergraduate research students using these grants. In 2008-09, five of our twenty tenured and tenure-track faculty will be supported by research grants from NSF and NASA, and three more will be supported by NSF grants associated with education (REU, CBMS, CCLI). In addition, NSF has given two large interdisciplinary grants (the NSF-UBM and NSF-CSUMS grants) to enhance various aspects of our undergraduate program. These grants primarily support undergraduates but do provide limited travel and summer money for faculty. Three department members not mentioned above are actively involved in the UBM and CSUMS grants, as well as several others who were already counted above. Therefore, more than half of the department is involved with nationally-funded research or teaching projects[1].

MSP and other links with the School of Education Members of the mathematics department and the School of Education have collaborated for many years in various programs funded with Department of Education Mathematics and Science Partnership (MSP) money distributed through the Virginia Department of Education. These collaborative grants, which will bring in nearly $1 million in 2008-09, might not appear on the list of mathematics department grants. In the past, they and their overhead have all always been attached to the School of Education. More recently, members of the mathematics department cooperated with School of Education and other departments' faculty on a successful NSF-NOYCE grant to support undergraduate and graduate students aiming for careers in pre-college mathematics and science teaching.

Links with VIMS: Recent years have seen a steady increase in interaction between members of our department (both biomathematicians and statisticians) and researchers and graduate students at the Virginia Institute of Marine Sciences (VIMS). Some department members have served on VIMS doctoral committees, and some have been grant co-PIs with VIMS faculty. Last year, in a meeting between department members, VIMS researchers, and the VIMS dean of research, several VIMS programs asked us to re-schedule our Math 401 (Probability) and Math 452(Mathematical Statistics) courses so that these two courses could be made part of certain VIMS doctoral programs. This has been done.

Off-campus components of the COR program: Students in the computational operations research (COR) masters program are required to carry out a real-world application project during the second year of their programs. As explained in Section 4b.3 on undergraduate and graduate research, the problems for the COR students come from both local agencies and businesses and from national agencies. In particular, there is a long-term relationship with Colonial Williamsburg from which our COR students often get problems and sometimes get financial support. In addition, in the summer after their first year, many COR masters students obtain internships and these internships often turn into employment opportunities for the students after graduation.

Possible external foundation support for biomathematics doctoral students: Recently, the department has been exploring potential links with a mid-western foundation as a possible source of financial support for biomathematics graduate students who would be part of the department's doctoral program with Applied Science. If this relationship develops, it will partially solve one of our most pressing problems – the lack of reliable graduate support funding for our doctoral students.

[1]Two other department members are "in-between" research grants and three of our newest members will begin writing NSF proposals in 2008-09.