Report
Project “The Robustness of the Three-Way Chart to Non-normality”

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I received an IUSB Faculty Research Grant $2,176 for project “The Robustness of the Three-Way Chart to Non-normality” in April 2004. I purchased a new PC in May for about $1,800, and spent $150 for a one-year local license of MatLab software for the PC. The new PC with fast processor and large memory capability allowed me to run some large calculations for the stated project.

The project was originally initiated from my research trip to New Orleans in March 2004. I received my Ph.D from Tulane and has several research collaborators in Loyola University and University New Orleans. During summer 2004 and spring 2005, I worked on the project, and communicated with my research collaborator Dr. Maria Calzada of Loyola University in New Orleans regularly. We produced some preliminary computation results. I planned a trip to New Orleans to meet with Dr. Calzada in early July, 2005. I purchased four airline tickets for July 9 flight as a part of my family vacation and research collaboration trip. I was also scheduled to attend a SIAM research conference hosted in Hilton New Orleans. Unfortunately, I had to cancel the trip due to forecasted landfall of Hurricane Dennis onto New Orleans on July 10-11. We were able to obtain refund of the airline tickets and re-scheduled my research trip for late August. Unfortunately, we had to cancel the 2nd trip again, this time indefinitely, because Hurricane Katrina hit New Orleans on August 29, 2005. Hurricane Katrina was the costliest and one the five deadliest in the US history. During the next few months or years, I did communicate with my collaborators in New Orleans only as close friends and talking about their life after Katrina instead of research projects.

At the same time during the period of 2005-2007, my own view and understanding of my research and ability to contribute to the department also been gradually changed. In November, 2008, I applied a sabbatical leave for fall 2009 and was granted a combination of partial leave in fall 2009 and fall 2010 while keeping administration duty as the department chair. In my sabbatical leave request, I wrote: “I have been the department chair since July 2003. My own research has suffered during this period, but I have a much better understanding of the overall need for the department. In 2006, we hired an applied mathematician, Dr. Chen, whose research area is close to mine in numerical analysis. Her ability to teach several upper level undergraduate and graduate courses that I used to teach gives me the flexibility to expand my teaching capabilities to other areas. The overlap between Dr. Chen’s expertise and my own has convinced me that I could be making a greater contribution to the overall mission of the department by moving more into actuarial science. … …. I believe that moving into actuarial science is the best way that I can be an active contributor to the department. I understand that this action may further delay my research program and may have negative implications for my chances for promotion to professor, but I believe this approach is in the best interests of IU South Bend.”
In 2007, through IT regular PC upgrade, my new office PC became faster than the PC purchased with the grant. I transferred all my computations into the regular office PC. In March 2008, due to the urgent needs of Math tutoring center and Math majors study room, I donated the PC purchased with the grant to the department to be used in the Math majors study room, the PC is still being used in Math majors study room in NS-308.