

DEPARTMENT OF MATHEMATICS

VIGRE Funding Report**(due 30 days after semester of support)****Semester/Summer and Year:**

Spring 2009

Name: Joshua Chesler

List the graduate courses you have taken this semester (including independent studies), your grades, and the instructors:

Course	Title	Grade	Instructor
MATH 920	Dissertation	K	Rebecca McGraw

List the title, date and location of any talks you have given, either here or elsewhere:

- "Collaborative mathematics instruction: An Analysis of the joint work of mathematics educators and mathematicians." The 8th Annual Hawaii International Conference on Statistics, Mathematics, and Related Fields, January 2009.
- "What Is Algebra? Views of Mathematicians, Mathematics Educators, and Teachers." California State University Long Beach, February 9, 2009.
- "What Is Algebra? Views of Mathematicians, Mathematics Educators, and Teachers." Cal Poly Pomona in February 12, 2009
- "The Academic Job Search." Cemela Seminar, Tucson, AZ. March 11, 2009.
- "Reflections on an Academic Job Search." Graduate Student Colloquium, Tucson, AZ. April 29, 2009.

If you are working on your dissertation, include a one paragraph description of your research progress. If you have not yet begun dissertation research, describe your progress toward finding a dissertation topic and advisor and beginning that research.

During the Spring 2009 semester I completed analysis and writing of my dissertation. I successfully defended my dissertation on May 14, 2009. The flexibility afforded by the VIGRE fellowship was essential to the timely completion of my dissertation. This was a busy semester which included 3 on-campus visits for job interviews and the majority of the writing for my dissertation.

List publications, if any.

- Chesler, J. and McGraw R. "Collaborative mathematics instruction: An Analysis of the joint work of mathematics educators and mathematicians." Proceedings of the 8th Annual Hawaii International Conference on Statistics, Mathematics, and Related Fields, January 2009.
- McGraw, R., Chesler, J., and Cossey, J. "Teaching teachers mathematics: An Analysis of collaborations between mathematics educators and mathematicians." Proceedings of The Hawaii International Conference on Education, January 2009.

Check all activities you completed during the funded period:

Academics:

- Independent Study
- Oral Comprehensive Exam
- Commence Thesis Research
- Conference attendance
- Conference participation
- Complete PhD

Professional development and outreach:

- AP Calculus Visit
- High School Workshops
- Undergraduate Research Project
- Undergraduate Research Seminar
- Super TA
- Mentoring junior graduate students for the qualifying exams
- RTG (help organize)
- Research Seminar (help organize)

Other (please specify)

Mathematical Circle
G-Teams Advisory

Attach a brief statement about your academic progress and professional development during the period of support.

VIGRE Report – Part II
Joshua Chesler
Spring 2009

During the Spring 2009 semester I completed and defended my dissertation. Completion of my dissertation required continuing the transcription, analysis, and writing processes which I had begun during the Fall 2008 semester. Spring 2009 was dedicated primarily to transforming my prior research and analytical work into the final version of my dissertation entitled “Interacting with Algebra: Mathematicians, Mathematics Educators, and Teachers Making Sense of Algebra Content”. On May 14, 2009 I successfully defended my dissertation.

Prior to my defense, I presented results related to my dissertation at the 8th Annual Hawaii International Conference on Statistics, Mathematics, and Related Fields. The content of this presentation was published in the Proceedings of the Conference (I was the primary author). I also presented my dissertation research at two “job talks” at universities in California.

In addition to completing my dissertation, much of the Spring 2009 semester was devoted to my job search. In January I attended the Joint Mathematics Meetings to participate in the Employment Center. I had three on-campus interviews early this semester and ultimately accepted a tenure track position in the mathematics department at Cal State Long Beach. The flexibility afforded by VIGRE made the demands of the job search process manageable and allowed me to stay on schedule with my dissertation.

I was active in professional development during Spring 2009. In January, I attended the Mathematics Educator Appreciation Day and assisted with a presentation. I continued my participation as an instructor/organizer in the Tucson Mathematics Circle. I gave two talks related to my experience during the academic job search, one at the Cemela Seminar and one at the Graduate Student Colloquium. As a former NSF GK-12 fellow, I served as an advisor for the upcoming NSF GK-12 G-Teams project.

Spring 2009 was a productive semester, both in work toward my dissertation and in accomplishing professional development goals. VIGRE support was essential to my successes.