

## **McNair Program Faculty and Staff**

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## **Letter from the Office of the Provost**

Dear Reader,

Congratulations to all of the students whose research is featured in this publication. I commend you on the quality of your work.

Research and creative activity is a vital part of an undergraduate education. It not only enhances the quality of your education at CSULB, it opens doors to jobs and graduate school.

In recent years, CSULB was recognized for having the highest number of graduates, among master's granting universities, go on to earn research doctoral degrees in science and engineering over a six-year period. Our outstanding faculty and the McNair Scholars Program have played critical roles in that success.

Superior academic and advising support, as well as unique research opportunities, successfully prepare McNair Scholars to pursue postgraduate work. I'd like to extend my sincere thanks to all of the faculty members who work tirelessly to mentor students.

Now more than ever, we need students from diverse backgrounds pursuing graduate school and careers as professors. Diversity in higher education enriches the educational experience, promotes respect for others and is critical for training future leaders in a global society. I hope you will consider continuing your education and pursuing a career in higher education. I applaud your work and wish you all the best in your future endeavors.

Dr. Donald J. Para  
Provost and Senior Vice President for Academic Affairs

## **Letter from the McNair Program Director**

Dear Reader,

Over the years I've had the pleasure to witness the academic and personal growth of hundreds of McNair Scholars. It is always so rewarding to see these bright students realize their full potential. And while certainly the McNair Program arms them with the advanced writing, research, presentation and communication skills needed to succeed in higher education, it is up to these individuals to apply them. It is in the application of these skills that our scholars excel.

McNair Scholars are not only excellent students, they are also committed to our program's mission—to advance the number of underrepresented men and women in doctoral programs and in the ranks of faculty members in colleges and universities throughout the world. Their journey has just begun and this 15th edition of the CSULB *McNair Research Journal* showcases their accomplishments.

I commend our promising scholars for their dedication to research, and thank the McNair Faculty Mentors and staff for their generous commitment to working with these students. The McNair Program is honored to play a key role in facilitating their achievements as witnessed in this journal.

Howard E. Wray III, J.D.  
Executive Director  
Educational Equity Services  
Director, McNair Scholars Program

## **Letter from the McNair Faculty Research Coordinator**

Dear Reader,

I had just finished my first semester as a physics student at MIT when the Challenger disaster took Ronald E. McNair from us. Dr. McNair had been a postdoc, studying applied physics at MIT. Several key shuttle systems and components had been designed by faculty at the institute, so the shock of the disaster was palpable on campus. The preeminent engineering achievement of the age, designed at the preeminent engineering institute of the time, had failed not only the nation, but had taken one of our own.

The Ronald E. McNair Post-Baccalaureate Achievement Program was established to honor the memory and to extend a goal dear to Dr. McNair's heart. This volume reporting research undertaken by our McNair Scholars is concrete evidence that this goal is being met, namely to support talented, ambitious, underrepresented and low-income undergraduate students as they aim for graduate study leading to the Ph.D. The authors in this journal are beginning their transformation from being students to being scholars. It is a privilege to be a part of this process.

Dr. Galen T. Pickett  
McNair Scholars Faculty Research Coordinator

## **Journal Disclaimer**

The content of this journal, the research, interpretations, conclusions, and analysis within each article, is solely that of the authors. While the McNair Program Faculty and staff endeavor to maintain accuracy and academic rigor in the development of each scholar's research project, errors or omissions are the responsibility of the author.

**California State University, Long Beach**  
**2011 McNair Scholars and Mentors**

<b>Scholar</b>	<b>Major</b>	<b>Faculty Mentor</b>
Rebecca Avalos	Communication Studies/CHLS	James Manseau Sauceda, Ph.D.
Cassie Comley	Psychology	Dustin Thoman, Ph.D.
Robert Farley	Comparative Literature	Elizabeth Dahab, Ph.D.
Erika Gonzalez	Sociology	Tracy Tolbert, Ph.D.
Sarah Hicks	English–Rhetorical Composition	Elyse Blankley, Ph.D.
Jessica-Angel Nichole Hunter-Thomas	Communication Studies	Reed Moran, J.D.
Michael Moval	Philosophy	Charles Wallis, Ph.D.
Emmanuel Reyes	Sociology	Jef Davis, Ph.D.
Vasiliki T. Shaver	English	Susan Carlile, Ph.D.
Brian K. Smith	Spanish Translation/ Music/Vocal Performance	Ray Briggs, Ph.D.