

2018

Front Matter

Maria Cruz

Taylor-Dawn Francis

Marissa Smith

Follow this and additional works at: <https://scholarworks.sjsu.edu/mcnair>

Recommended Citation

Cruz, Maria; Francis, Taylor-Dawn; and Smith, Marissa (2018) "Front Matter," *McNair Research Journal SJSU*: Vol. 14 , Article 2.

Available at: <https://scholarworks.sjsu.edu/mcnair/vol14/iss1/2>

This Front Matter is brought to you for free and open access by SJSU ScholarWorks. It has been accepted for inclusion in McNair Research Journal SJSU by an authorized editor of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

SAN JOSÉ STATE UNIVERSITY
McNAIR SCHOLARS
PROGRAM
RESEARCH JOURNAL

* San José State University and McNair

The Ronald E. McNair Post Baccalaureate Achievement Program was established by Congress in 1986 after the tragic explosion of the Space Shuttle Challenger that killed seven crew members, including Dr. McNair. Funded by the U.S. Department of Education, the program provides institutions with grants to develop and implement successful programs that recruit promising and aspiring low-income and first-generation students and those from backgrounds underrepresented at the doctoral level and prepares them for the rigors of graduate level work. Currently, the program operates at 152 campuses across the country serving over 4000 scholars each year.

Since the McNair Scholars Program's inception at SJSU in 1996, McNair has successfully recruited over 200 low-income and first-generation students and individuals who are underrepresented at the doctoral level. Of those who have completed the program, 99.5% have earned their bachelor's degree, far exceeding the 16% - 20% for this population nationwide. Eighty percent of our SJSU graduates have finished or are pursuing a graduate school degree, and 100% of our students who are in graduate school are continuously enrolled. This year alone we had 11% of our SJSU Alumnus receive their Ph.Ds., which is quite a feat given that the national average for first-generation low-income students to receive their PhD is less than 2% (NSF 2017). SJSU has McNair alumni teaching or studying at universities across the United States, as well as in Germany, Columbia, Kenya, Australia, Turkey, and Morocco. We are extremely proud of our students and our program's successes.

San José State University does not discriminate on the basis of race, color, creed, national origin, gender, sexual orientation, age, or disability in the administration of its educational policies, admissions policies, fellowship and loan programs, or other programs. San José State University is in compliance with Section 504 of the Rehabilitation Act of 1973 and provides accessible walkways, ramps, and reserved parking spaces for the handicapped.

The information and policies included in this journal were current when printed, but are subject to change without notice. Additional and more current information may be found on the World Wide Web at <http://www.sjsu.edu>.

This journal can also be accessed at <http://scholarworks.sjsu.edu/mcnair/>.

MCNAIR PROGRAM STAFF

DR. STACY GLEIXNER

Associate Vice President Student Academic Success Services

DR. MARIA ELENA CRUZ

Director

Principal Investigator

DR. MARISSA SMITH

Research Coordinator

TAYLOR-DAWN FRANCIS

Writing Specialist

MARTHA TORAL

Administrative Coordinator

Faculty Mentors for the 2017-2018 Research Year

DR. VALERIE CARR

DR. KATHERINE CHILTON

DR. PATRICK CRAVALHO

DR. MARIA ELENA CRUZ

DR. BURFORD J. FURMAN

DR. CARLOS EDUARDO GARCIA

QUINCY DALTON McCRARY

DR. NIKOS J. MOURTOS

DR. DAVID SCHUSTER

DR. KATHERINE WILKINSON

Editors

DR. MARIA ELENA CRUZ
TAYLOR-DAWN FRANCIS
DR. MARISSA SMITH

ACKNOWLEDGMENTS

**WE ARE DEEPLY GRATEFUL TO THE FOLLOWING PERSONS
FOR THEIR SUPPORT:**

U.S. DEPARTMENT OF EDUCATION

LINDA BYRD-JOHNSON
Director of the Office of Federal Trio Programs

CARMEN GORDAN
Program Officer

SAN JOSÉ STATE UNIVERSITY ADMINISTRATION

DR. MARY A. PAPAIZIAN
President

ANDY FEINSTEIN
Provost and Senior Vice President for Academic Affairs

STACY GLEIXNER
Associate Vice President Student Academic Success Services

PAMELA STACKS
Associate Vice President Graduate Studies and Research

A MESSAGE FROM THE DIRECTOR

The San José State University McNair Scholars Program is pleased to present the fourteenth SJSU McNair Scholars Research Journal. This journal represents the diverse and practical research experiences of the McNair Scholars during the 2017-2018 academic year.

I would like to congratulate the scholars for their hard work, dedication, and accomplishments during the spring course and in the summer research program. My sincere appreciation to the faculty mentors for their guidance, time, and commitment to the scholars, their research and the program. A particular word of thanks goes out to the families and extended support systems that made these outstanding presentations possible.

This year we are honoring Heriberto Zavala, an undocumented student who is sponsored by San Jose State University. His work is highlighted as the cover of this year's journal which reflects his article, called, "*Yo No Cruse La Frontera, La Frontera me Cruzo*" (I Didn't Cross the Border, the Border Crossed Me). Our federal grant does not allow for us to fund students that are not residents and/or U.S. Citizens. We are eternally grateful for San Jose State's support in assisting Heriberto Zavala and his journey to reach for higher education and obtain his Ph.D. in the near future! We are proud to be Spartans!!

A special thanks to President Dr. Mary A. Papazian, Andy Feinstein Provost and Vice President for Academic Affairs, Stacy Gleixner Associate Vice President for Student Academic Success Services, and Pamela Stacks Associate Vice President for Graduate Studies and Research for their continuing support and encouragement given to both the students and staff of this program.

TABLE OF CONTENTS

McNair Research Papers

1 Reina Aguierre

“The Evolution of the “We Can Do It” Poster and American Feminist Movements.”

FACULTY MENTOR: Dr. Katherine Chilton, Department of History

23 Christian Arevalo

“Ethnic Identity, Self-Esteem & Intra Group Conflicts Amongst Latinos.”

FACULTY MENTOR: Dr. Carlos Eduardo Garcia, Department of Sociology and Interdisciplinary Studies

44 Karina Chavez

“Advancements in Higher Education for Latino(a)/Chicano(a) Doctorates.”

FACULTY MENTOR: Dr. Patrick Cravalho, Department of Psychology and Dr. Maria E. Cruz, Director, McNair Scholars Program

62 Maranyeli Estrada

“Saving the Resistance: The Purépechan People of Northern Mexico.”

FACULTY MENTOR: Dr. Maria E. Cruz, Director, McNair Scholars Program and Quincy McCrary, Department of Anthropology

71 Maria E. Fernández

“Undocumented Queer Latinx Students: Testimonio of Survival.”

FACULTY MENTOR: Dr. Maria E. Cruz, Director, McNair Scholars Program

94 Issac Gendler

“Finite Element Analysis of a Guideway for Automated Transit Networks.”

FACULTY MENTOR: Dr. Burford J. Furman, Department of Mechanical Engineering

113 Lluvia Gonzalez

“The Aftermath for Psychology Students: Questionnaire Administered to SJSU Alumni.”

FACULTY MENTOR: Dr. Valerie Carr, Department of Psychology

124 Daniel Kelley

“Investigation of Attitudes Towards Security Behaviors.”

FACULTY MENTOR: Dr. David Schuster, Department of Psychology

140 Puneet Sanghera

“The Effects of Acute Lipopolysaccharide Induced Inflammation on Spinal Cord Excitability.”

FACULTY MENTOR: Dr. Katherine Wilkinson, Department of Biological Studies

154 Uyen Sou

“Electric Aircraft and the Environment: A Literature Review.”

FACULTY MENTOR: Dr. Nikos J. Mourtos, Department of Aerospace Engineering and Dr. Maria E. Cruz, Director, McNair Scholars Program

164 Heriberto Zavala

“Yo No Cruse La Frontera, La Frontera Me Cruzo” (I Didn’t Cross the Border, the Border Crossed Me).

FACULTY MENTOR: Dr. Magdalena Barrera, Department of Mexican American Studies