

HANDS-ON LEARNING

Undergraduate students at Boise State University have tremendous opportunities to conduct hands-on research in a wide range of disciplines. Across campus and farther afield, they are working on projects that at many universities are offered only to graduate students. In this section, a few of these undergraduates talk about their research and its impact.



JOSU ZUBIZARRETA

Senior, double major in Biology and Spanish

Career goal: Medical doctor and researcher

Research: I work with Dr. Greg Hampikian on genetic studies involving the Basque population in southwest Idaho. This DNA-based research could help us trace immigration patterns of this unique ethnic minority. I also collaborate with researchers at the University of the Basque Country in Spain to better understand health risks for Basque people, including an increased incidence of both Alzheimer's and Parkinson's diseases.

Impact: I am Basque myself. Both my grandfather and grandmother died of Alzheimer's disease, so I have a personal stake in determining whether there is a genetic link to the increased prevalence of this devastating disease among the Basque population.

Benefits: This hands-on research is providing me with the experience I need to successfully apply to medical school.



JOHN KELLY PHOTO

MARTHA MENDOZA

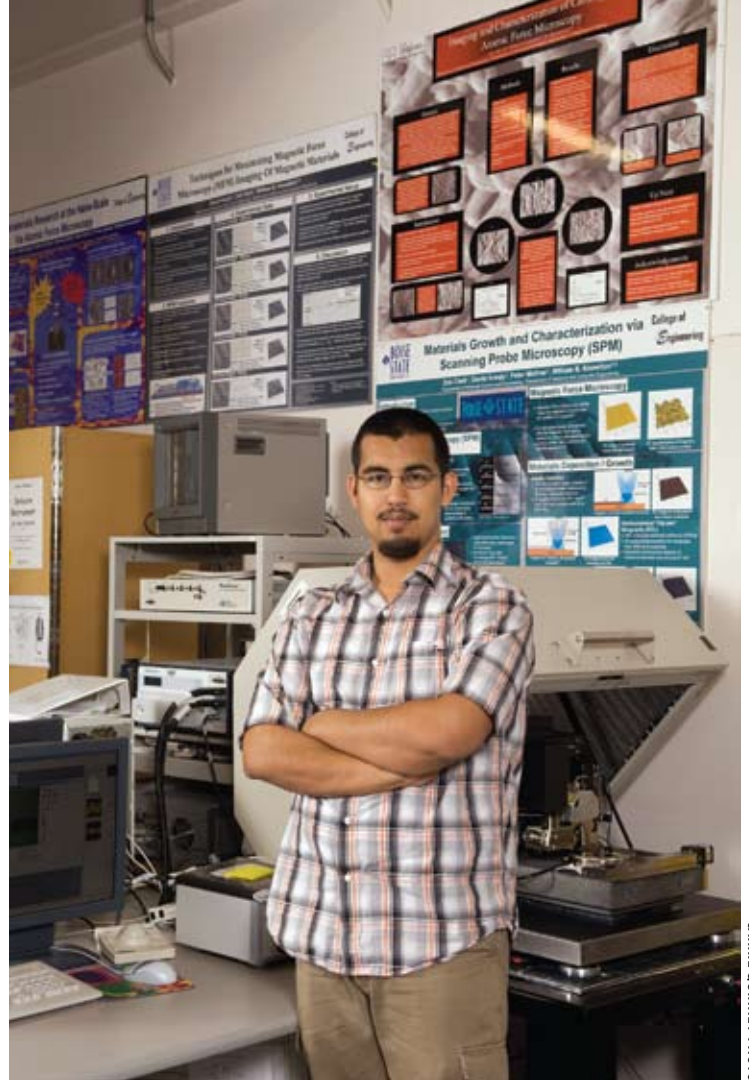
Junior, Bilingual Education major

Career goal: School teacher and scholar

Research: I am conducting a study of Spanish-language children's literature, based on the critical literacy approach of educators Paulo Freire and Donaldo Macedo. I plan to create a curriculum based on my research that can be used by educators and others to explore issues of social inequity and injustice portrayed in this literature.

Impact: This curriculum will enable elementary school teachers to provide their students with relevant literature that encourages discussion of topics such as social, economic and political injustice, in an effort to aid young readers in overcoming any internalized feelings of oppression.

Benefits: I hope to contribute to positive social change by encouraging children to become advocates for social justice, thereby promoting transformation within our communities.



CARRIE QUINNEY PHOTO

MATTHEW REINHOLD

Senior, Materials Science and Engineering major, Physics emphasis

Career goal: Engineering professor

Research: I work with Drs. Bill Knowlton and Peter Müllner on research involving magnetic shape memory alloys, materials that, after deformation, return to their original shapes with a change in temperature or with magnetic force. Using atomic force microscopy techniques, I'm studying the properties of these unique materials on a nanoscale level.

Impact: The materials we're studying have great potential for use in sensing devices, computer memory, and even for generators that run on green energy.

Benefits: I grew up working on our family farm, then I worked at a fish processing plant and as someone else's farmhand. I wanted a different life. When I first came to Boise State I kind of coasted. Getting into research motivated me to invest more in my education.



JOHN KELLY PHOTO

BENJAMIN LOVE

Junior, Bachelor of Fine Arts major,
Sculpture emphasis

Career goal: Full-time artist

Research: I work with “found” materials that were originally used for another purpose. I work mainly with wood, but I also use steel, fabric scraps from a local sewing shop and aluminum in my art. About 90 percent of these materials are reclaimed.

Impact: I hope that my sculptural work offers people opportunities to slow down enough to connect to the piece, think about what it is made of, and then realize the implications of the material.

Benefits: I’m able to create art and have my socio-ecological perspective be part of my work. People who experience this art have the opportunity to re-evaluate their preconceived value structures, and to consider that there is no such thing as garbage.



CARRIE QUINNEY PHOTO

DEMENEE MAY

Senior, Criminal Justice major, Psychology minor

Career goal: Juvenile corrections or public agency crime research

Research: I work with Drs. Andrew Giacomazzi and David Mueller on a project for the Idaho Criminal Justice Commission. We are compiling a database of best practices nationwide and in Idaho for treatment of juveniles with substance abuse and mental health issues. We are measuring recidivism rates and the success of juveniles who finish programs like drug court, counseling and assessment, family-focused therapy, etc. We then will make policy recommendations to the state on what is currently lacking and how to better handle juveniles in the corrections system.

Impact: We hope to control juvenile incarceration rates by encouraging the state to adopt successful programs that lower recidivism rates.

Benefits: I get hands-on research experience and the chance to positively influence how Idaho runs its juvenile corrections program.



CARRIE QUINNEY PHOTO

SELINA CARVER

Senior, Health Sciences major

Career Goal: Health policy work in government or private sector

Research: I work with Dr. Holly Beard at the Center for the Study of Aging on an analysis of the needs of long-term care, paying particular attention to rural areas. I also work with Dr. Ed Baker at the Center for Health Policy on research to examine the economic impact of methamphetamine use in Idaho, from the cost of incarceration to the cost of medical treatment and rehabilitation.

Impact: Policy is a great way to move health care in positive directions. By helping state and local governments identify the needs of their citizens, we can help create a more efficient health care system.

Benefits: This research has helped me become a better writer and a better researcher. I'm also learning how to more efficiently allocate resources for health care.



JOHN KELLY PHOTO

KYLER JAMES

Senior, Economics major, History minor

Career goal: Professor of Russian studies and economics

Research: I work with Drs. Scott Lowe and Samia Islam to look at the impact federal environmental regulations have on entrepreneurial activity in the U.S. Specifically, the research targets small businesses such as grocery stores, dry cleaners and restaurants that enter and leave an area surrounded by bigger businesses. This is an extension of current studies that focus on the location choices of large, heavily polluting businesses.

Impact: This research will help small businesses better judge their likelihood of success and the government better understand the results of its actions concerning small businesses.

Benefits: As graduate school emphasizes research, this experience will improve my marketability and give me the hands-on experience to be more successful in both a master's and a Ph.D. program.