

prdaOffice of Research Development and Administration
Award Report, September 2017

\$1,700,833

Jessica Alexander, Institute for the Study of Children, Families and Communities
Michigan Department of Education (\$5,733)
Summer Food Service Program for EMU Upward Bound Summer Academy 2017: Upward Bound is a year-round academic and college success program for students from high-needs school districts. EMU's Upward Bound program targets low-income high school students from Ypsilanti Community Schools who are academically at-risk and the first in their families to go to college. EMU-UB provides academic support, career exploration, advising, college campus tours, assistance with college and financial aid applications, etc. This award allows us to provide food during our Summer Academy.

Jessica Alexander, Office of Academic Service Learning
Michigan Department of Labor-Labor and Economic Growth (\$29,951)
Protecting Construction Workers from Silica 2018: Eastern Michigan University's Center for Organizational Risk Reduction(EMU CORR) training program will (1) enhance MIOSHA's mission to help assure the safety and health of Michigan workers, (2) assist MIOSHA to implement its 2014 - 2018 Strategic Plan for Construction Health Hazards, and (3) assist Michigan employers in complying with new silica standards and protecting Michigan workers by providing effective, practical training and compliance advice. EMU CORR will provide an eight-hour comprehensive training program in workshop format to enable employers to recognize silica exposure hazards, legal obligations to protect workers from silica exposure, and select and implement appropriate exposure control measures for various construction situations and conditions. EMU CORR will hold ten seminars in multiple locations around the state. The target audience is employers engaged in (1) the construction of buildings, (2) heavy and civil engineering construction, (3) demolition, (4) residential construction, and (5) building material, garden equipment and supplies

Ethriam Brammer, Institute for the Study of Children, Families and Communities
US Department of Education (\$232,265; Year 3 of 5)
Eastern Michigan University TRIO SSS Regular Program, 207 - 2018: The EMU TRIO SSS program supports first generation students, low income students, and students with disabilities. The goal is to increase college retention and graduation rates for these students. The program offeres tailored support that includes academic tutoring, advice and assistance in course selection, counseling to improve financial literacy, information and assistance in applying for Federal Student Aid, and assistance in applying for admission to graduate school. Funding provides support for 140 students per year. The program succeeds through partnership with collaborating offices across campus.

Wayne Doyle, Institute for the Study of Children, Families and Communities
US Department of Education (\$154,815; Year 3 of 5)
Eastern Michigan University TRIO SSS programs for Veterans: The EMU program promotes academic success among student veterans and serves a minimum of 80 students. The program

provides dedicated academic and personal support, tailored to address the unique needs of veterans who are in pursuit of a bachelor's degree from EMU. Expected outcomes are good academic standing, increased retention and degree completion and optimal use of available financial aid. The program partners with: EMU Veterans Resource Center, McNair Scholars Program, EMU Student Support Services, Financial Aid, Transfer Admissions, Upward Bound, University Advising and Career Development, the Veterans Community Action Team for Region 9, and the Consortium of Michigan Veterans Educators.

Chris Finch, Child Care Center

Michigan Department of Education (\$25,000)

Child Food Care Program: The Child and Adult Care Food Program provides reimbursement for the meals provided to the children at the Children's Institute.

Charles Graham, School of Social Work

Washtenaw County Juvenile Drug Court (\$25,861)

Adolescent Diversion Program 2018: The Adolescent Diversion Program (ADP) field unit is a cooperative effort between Eastern Michigan University (EMU) School of Social Work and Washtenaw County Juvenile Court. ADP seeks to provide court referred adolescent participants with a program of mentoring and advocacy services tailored to address their unique needs and to help them avoid further involvement with the juvenile justice system. Trained and supervised social work undergraduate student interns will meet and work with each assigned youth 6-8 hours weekly for 15 weeks, providing constructive interaction and feedback through various vocational, academic, and recreational activities.

Allen Kurta, Biology

Michigan Dept of Natural Resources (\$32,240)

Bat surveys in underground mines and caves in northern Michigan (supplement to original contract plus more time): At various sites throughout the state, Dr. Kurta will monitor the number of hibernating bats and the approximate species composition to help determine the effects of an introduced fungal disease (white-nose syndrome) on bats in Michigan.

Vijaykumar Mannari, School of Engineering Technology

CRODA (\$15,963)

CRODA Testing Agreement: This project involves testing and evaluation of new generation environmentally sustainable epoxy hardeners with commercially available counterparts to assess performance and corrosion resistance.

Heather Neff, English Language and Literature

US Department of Education (\$232,265; Year 1 of 5)

McNair Program 2017 - 2018: The goal of the Eastern Michigan University McNair Program, is to provide disadvantaged college students with effective preparation for doctoral study. Each year the EMU program serves 36 undergraduate students, at least two-thirds of whom (24) will be first-generation and low-income, with the remaining third (12) coming from populations underrepresented in doctoral education.

Eric Paradis, Physics and Astronomy

National Science Foundation, sub award through University of Michigan (\$25,313)
Electric fields, shock-fronts and structures in laser-induced magnetized plasmas: Plasmas that are cold or strongly coupled or magnetized occur, for instance, in astrophysical environments, magnetic-confinement fusion and ion trapping experiments. Further, the presence of a large magnetic field leads to novel phenomena such as magnetic pressure, anisotropic expansion/trapping in both astrophysical plasmas as well as plasma within fusion devices and magneto-hydrodynamic generators. The study of such plasmas is challenging; some are too remote while others may be inaccessible to diagnostic probes. Although laboratory studies of cold plasmas have been conducted in weak magnetic fields, the strong magnetic-field regime is still poorly understood. One outstanding goal is to reach the regime of strong coupling for both electronic and ionic components of the plasma. The proposed work focuses on the preparation and diagnostics of small-scale, easy-to-access laboratory plasmas that emulate the plasma systems above.

Steven Pernecky, College of Arts and Sciences,
US Department of Education (\$397,754)

Strengthening the STEM Curriculum of Eastern Michigan University by Institutionalizing the CSIE Program, Year 4, 2017 - 2018: This is year 4 of 5 years of funding. The project will implement the innovation and effective CSIE program across STEM disciplines. The focus is on faculty professional development, curricular reform, and improved student connections to STEM faculty, peers, and the community through experiential community-based research activities.

Zuzana Tomas, World Languages English as a Second Language
US Department of Education (\$523,673; Year 2 of 5)

Writing Research Intervention in Teaching English Language Learners (WRITELL): A Quasi-Experimental Study Using Teacher Inquiry Communities to Support English Learners Opinion Writing Through the Use of Writing Strategies and Scaffolding: WRITELL provides professional development to improve instruction for English Learners (ELs). Undergraduate and graduate students at Eastern Michigan University will provide after-school tutoring services to EL youth and to EL adults during morning and evening classes. Intensive, year-long professional development for teachers will improve instruction for ELs and provide the subject for a quasi-experimental study of the effectiveness of scaffolding and writing strategy instruction for ELs. The project will serve 40 preservice teachers per year (200 total), 60 in-service teachers per year (300 total), 50 newly-licensed EL teachers by project end, 30 school leaders, counselors, school psychologists, etc. per year (150 total), 100 EL students in after-school tutoring programs per year (500 total), 250 parents and children in family literacy workshops per year (1250 total), and 250 adult ELs in the community per year (1000 total).