

**Office of Research Development and Administration**  
**Award Report**  
**April 2018**  
**\$975,486**

**Olivia Ford**, School of Health Sciences

U S Department of Agriculture – USDA; Grant to University of Tennessee, (\$3,000)

Get Fruved: A peer-led, train-the-trainer social marketing intervention to increase fruit and vegetable intake and prevent childhood obesity: EMU is taking part in a University of Tennessee study on fruit and vegetable intake at colleges and universities across the country.

**Wade Tornquist**, Graduate School

State of Michigan, (\$9,773)

King-Chavez-Parks (KCP): Visiting Professors Program FY2018: The Martin Luther King, Jr.-Caesar Chavez-Rosa Parks (KCP) Visiting Professors Program was created by the Michigan State Legislature to stem the downward spiral of college graduation rates for students underrepresented in postsecondary education. The KCP Visiting Professors Program is intended to increase the diversity of instructors in Michigan higher education institutions to provide role models for underrepresented students.

**Wade Tornquist**, Graduate School

State of Michigan 2, (\$103,362)

King-Chavez-Parks (KCP) Future Faculty Fellows FY2018: The purpose of the King-Chavez-Parks Future Faculty Fellowship Program is to increase the pool of traditionally underrepresented candidates pursuing careers in postsecondary education and subsequently promote inclusivity and diversity in US colleges and universities. The KCP Future Faculty Fellowship Award provides a maximum of up to \$20,000 for master's level Fellows and up to \$35,000 for doctoral Fellows. Future Faculty

**Nelson Maylone**, Teacher Education

The Woodrow Wilson National Fellowship Foundation, (\$12,000)

Woodrow Wilson Mentoring Project (Year 6): The purpose of the project is to provide mentoring to EMU's working Woodrow Wilson Teaching Fellows. The objective is to assist in their professional development during their induction years. The mentoring (by a faculty member in Teacher Education) includes field observations and feedback, virtual support, and funding of their various professional development opportunities.

**Ethan Lowenstein**, Institute for the Study of Children, Families, and Communities

UPS Foundation, (\$5,000)

Place-Based Stewardship Education in Action: This program has three primary goals: 1) to help the SEMIS Coalition to develop a systematic approach to supporting educators as they integrate arts, history, and civic action in place-based stewardship education projects, 2) to strengthen two, high impact partnerships with arts organizations in our region, 3) to share the impacts of student projects with the larger community.

**Cory Emal**, Chemistry

U S Department of Agriculture - USDA, (\$149,996)

Strengthening student readiness for internships and the workforce via Fermentation Science curriculum development and implementation: The current rapid growth in interest in fermented foods and beverages, such as beer, wine, yogurt, and fermented vegetables, has created an increased demand for employees with technical training related to their production. In response to this demand, Eastern Michigan University has created new major and minor degrees in Fermentation Science, intended to provide students practical, hands-on training in the science as it relates to the process of fermentation. Given the infancy of the field of Fermentation Science, there is not a standard curriculum to be used as a template, nor are there numerous standard experiments or textbooks available. The goal of the proposed project is to create and integrate additional practical experiments and experiences into the first-year introductory and third-year analytical Fermentation Science courses, with the goal of better preparation of students for their senior-year internships/collaborative research projects. The beneficiaries of this project will be the students within the program as they receive a greater amount of contextually relevant training, and our external partners in the fermentation

community who host our internships and hire our graduates will benefit from a student/employee with a larger base of practical training. Curricular materials and procedures will be disseminated and made available to the education community for use or adaptation.

**Christine Deacons**, Academic Programming

State of Michigan 1, (\$136,905)

EMU Edge: Pathways to Completion: Edge supports first-generation low-income students who are academically at –risk with a 4-year program of structured support that begins with adoption of the EMU Engage app that helps students start to make connections before arriving on campus. This is followed by a 4-day early orientation prepping students for college life - including workshops related to finances, motivation and goal setting, and introduction to native electronic systems to help students more easily navigate the challenges they face as they transition to college and beyond. Over the course of the 4-year program, students participate in service and leadership activities, Edge Advance student organization events, and have the opportunity to join an Edge-specific study abroad trip.

**Christine Finch**, Child Care Center

Washtenaw Intermediate School District, (\$13,485)

Great Start Readiness Program Amendment: This program makes preschool programs available to EMU students and the surrounding community. It can make it possible for the EMU students to complete their education and community members to attend EMU and/or become employed. The program's funding is for four-year-olds who would otherwise be at risk of becoming educationally disadvantaged and this amendment is for two additional students.

**David Pawlowski**, Physics and Astronomy

U S Small Business Administration, (\$29,075)

Understanding the effects of solar flares on the upper atmospheres of Mars and Venus – (Year 3): This work will primarily focus on the development and use of the Mars Global Ionosphere-Thermosphere Model (M-GITM) as well as the Venus Global Ionosphere-Thermosphere Model (V-GITM). Tasks include: 1) Assisting in the development of V-GITM; 2) Simulating the response to both realistic and idealized solar flare cases within M-GITM and V-GITM; 3) Work closely with other team members to compare results and observations that illustrate how traveling atmospheric disturbances facilitate the transport of energy and momentum throughout the Mars and Venus upper atmosphere; 4) Model results and observational analysis.

**Kristin Judd**, Biology

Mill Creek Research Council, (\$850)

Two student projects with Mill Creek Research Council: Funding is for two student research projects on human impacts on stream ecosystems in the Huron River Watershed. The first project addresses the impacts of low doses of pharmaceuticals that enter natural systems directly from wastewater treatment facilities and indirectly through leaky wastewater treatment infrastructure. This study is the Masters Thesis research of Elizabeth Stover. She will cultivate stream biofilms on tiles to discover which various common pharmaceuticals found in waste water effluent are added to biofilms. The second project examines the impact of road salt inputs on stream ecosystem function, and will be carried out by Caleb Willette, an undergraduate student. Both studies include Mill Creek as the focal stream, but will also study other streams located in the upper Huron River Watershed to better understand how land use interacts with low doses of pharmaceuticals and road salt inputs. Both projects will be carried out during the spring and summer of 2018.

**Tricia Finger**, School of Health Sciences

Early On Center for Higher Education, (\$6,918)

In-Home Observations of Early Intervention Services: Interactions Between Providers and Families: The field of early intervention has shifted from a child-centered approach to a more family-centered approach in recent years. While early intervention providers have strong values and beliefs about delivering family-centered care, their day-to-day practices don't always reflect these values. This study takes an in-depth look at early intervention services as they unfold in the natural context of a child's home within the family system. Direct observation through wearable video cameras will enable the collection of detailed data on the complex interactions that take place during early intervention visits. Through this approach, we will be able to answer the following primary research questions: 1) What role does the parent/caregiver play during the intervention visits? What is the level of family

engagement in the process? 2) What activities/contexts do the early intervention services take place in? Which family routines are utilized? Secondary research questions include: 3) What are parent/caregiver perspectives on their role in the early intervention process? Are they satisfied with the level of engagement they experience? 4) Is there a relationship between perceived parent/caregiver engagement and their reported levels of family stressors and other potential barriers to family engagement?

**Hitomi Oketani**, World Languages  
Japanese School of Detroit, (\$20,622)

2018-19 Japanese School of Detroit Teaching Contract: Through an educational affiliation between JSD and EMU, EMU will provide JSD with qualified student(s) who will teach Japanese language at the off-campus location of Detroit Ringo Kai, Japanese School of Detroit.

**Wendy Thomas**, Small Business Development Center  
U S Small Business Administration, (\$484,500)

Small Business Development Center (SBDC) Host, 2018: The Michigan Small Business Development Center (MI-SBDC) at Eastern Michigan University is part of a statewide program that is primarily funded by the U.S. Small Business Administration to provide assistance to entrepreneurs at start up stage and existing businesses seeking to grow and improve their operations. The MI-SBDC offers one-on-one counsel, training seminars and secondary research support to its clients. We also make presentations and outreach in the communities we serve to provide information about business support resources that are a