Funding History

JMU Investigators Secure Funding Exceeding $16 Million

Fiscal year 2013 (FY13) was an anemic year for James Madison University (JMU) both in terms of funding applications submitted and total dollars received to support externally sponsored activities. The continued stagnation of the economy in conjunction with the threat and application of Sequestration at the federal level drove a marked decline in the total funding available and received. With the federal budget uncertainty, sponsors cut or delayed funding decisions and declined or held many projects for future review. Many institutions have observed this same trend in the past fiscal year and report sagging awards as well. The focused efforts of faculty, staff, and students within the JMU community brought in total external funding of $16,088,729 during the period July 1, 2012 through June 30, 2013 as compared to $21,450,410 in FY2012, or a decrease of 25%.

On the bright side, 187 JMU faculty, students, and staff were involved preparing an impressive variety of funding applications, many representing collaborations across departmental lines or with outside organizations. This is similar to the numbers of individuals seeking external funding in FY12 at 195 and in FY11 at 185. Together our investigators submitted 355 proposals, received funding for 231 projects, and maintained an impressive 65% funding success rate, staying on the mark for the past six years. The following chart reflects the volume of proposals and awards during FY13.

In FY13 there were decreases both in the number of total submitted applications (down 16%) and number of projects funded (down 17%) even though there were the same numbers of investigators represented by these applications and awards as in previous years. Total funding for FY13 is down 25% in dollars received or ($5,361,681). During this period, investigators were often asked by sponsors to make budget reductions to secure the awards. It is difficult to pinpoint the cause of the reduction but it seems reflective of the slow economic recovery, the Sequestration unknowns, and constriction in the federal sources of funding as well as changes to funding programs for historically strong private sponsors. It is also possible that increased teaching and service loads and administrative burdens associated with seeking and managing grant funding has negatively impacted activity among the investigator community at the university.

Special points of interest:

- 231 awards
- 355 submissions
- 187 Faculty and Staff Investigators
- 65% success rate
- $16,088,729 in awards
- The U. S. Department of Education was the largest federal sponsor at $3,951,312
- The U. S. Department of Education funded the most numerous projects at 23
Various types of sponsors support JMU’s excellence in research, education, training, and service. The individual sectors include federal, state, private/non-profit, foundation, industry, Virginia city/county, non-VA government, and university. Of the 231 awards received in FY13, the majority in both number and total award amount came from the federal government either as direct assistance or as flow-through to the university from Virginia state agencies and other universities. Combined, federal and state funds represented 64% of the overall total awards at $10,222,284 a drop of 13% (and $6,094,958) compared to their combined portion in FY12. During uncertain times at the national level, this is a positive sign of diversification of funding sources.

**External Funding by Agency Type**

Funding received may be broken down by predominate activity type. Research at $3,294,164 represents 20% of all funded projects. Public Service & Outreach is also a significant focus of externally funded projects at $6,631,332 or 41%. Instruction represents $2,578,159 or 16% of funding while Continuing Education at $475,996 represents 3% of all activity. Another sector of activity is that of Other at $3,109,079 or 19%, which represents a variety of sponsored activities which do not correspond to any of the preceding categories.
The awards obtained by JMU faculty and staff range in type, including research, public service/outreach, continuing education and instruction development, as well as equipment acquisition. Collaborative activity involving multidisciplinary projects, inter-institutional collaborations, and private and industry partnerships continues to be central to the proposal development process.

The table above shows the total awards earned by each college or division, the number of proposals submitted, and total funded value. The College of Arts and Letters received $558,257, or 3.47% of total funding. The College of Health and Behavioral Studies received $5,779,555, or 35.92% of total funding while the College of Integrated Science & Engineering received $810,084, or 5.04% of total funding. The two colleges previously fell under the College of Integrated Science & Technology but were separated out at the start of FY 13 to reflect the growth of STEM and health-related programs at JMU. The Graduate School brought in $1,874,960, or 11.65% of total funding. Research and Public Service received $3,307,331, or 20.56% of total funding. The College of Science and Mathematics received $1,179,612, or 7.33% of total funding. The College of Education earned $1,625,041, or 10.10% of total funding. Science, Technology, Engineering, & Mathematics (STEM) obtained $44,593, or 0.28% of total funding. College of Visual & Performing Arts did not receive any funding. Academic Affairs received $510,066, or 3.17% in total external funding received during FY 13.

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<thead>
<tr>
<th>College or Division</th>
<th>Total Submissions</th>
<th>Total Awards</th>
<th>Total Award Value</th>
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<tbody>
<tr>
<td>Academic Affairs</td>
<td>14</td>
<td>9</td>
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<tr>
<td>Research and Public Service</td>
<td>36</td>
<td>20</td>
<td>$3,307,331</td>
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<td>The Graduate School</td>
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<td>6</td>
<td>$1,874,960</td>
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<td>Administration and Finance</td>
<td>7</td>
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<td>$1,500</td>
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<td>College of Arts &amp; Letters</td>
<td>21</td>
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<tr>
<td>College of Science &amp; Mathematics</td>
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<td>37</td>
<td>$1,179,612</td>
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<tr>
<td>College of Visual &amp; Performing Arts</td>
<td>3</td>
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<td>$0</td>
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<tr>
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<tr>
<td>College of Education</td>
<td>31</td>
<td>24</td>
<td>$1,625,041</td>
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<tr>
<td>College of Health &amp; Behavioral Studies</td>
<td>87</td>
<td>83</td>
<td>$5,779,555</td>
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<tr>
<td>College of Integrated Science &amp; Engineering</td>
<td>49</td>
<td>26</td>
<td>$810,084</td>
</tr>
<tr>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
<td>4</td>
<td>2</td>
<td>$44,593</td>
</tr>
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<td><strong>231</strong></td>
<td><strong>$16,088,729</strong></td>
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</table>

“The grant proposals that are well written are usually the ones that get the checks.”
—Dr. Paul (Wyn) Jennings, the National Science Foundation’s Program Director of Graduate Research Traineeships

“The remarkable thing is that although basic research does not begin with a particular practical goal, when you look at the results over the years, it ends up being one of the most practical things government does… Major industries, including television, communications, and computer industries, couldn’t be where they are today without developments that began with this basic research.”
—Ronald Reagan, 40th President of the United States (radio address to the Nation on the Federal Role in Scientific Research)
Ms. Emily K. Akerson, Institute for Innovation in Health and Human Services, received $2,000 from the Association of American Medical Colleges to reward the recipient for participation in the Interprofessional Education Collaborative (IPEC) collection; $2,500 from the Shenandoah Community Foundation to maintain ongoing home visiting services, transportation, support and advocacy for new families that will assist them in improving their lives and the future of their children; $9,210 from Valley Program for Aging Services, Inc. to provide educational and administrative services; with Ms. Jane Hubbell, Institute for Innovation in Health and Human Services, $2,000 from Page Memorial Hospital to provide written and video materials and supportive education to at least one hundred new and expectant parents regarding shaken baby syndrome, sudden infant death syndrome, and other serious early childhood health and safety issues; with Ms. Jane Hubbell, a total of $110,810 from the Virginia Department of Social Services to continue to meet the needs of at-risk families in the Shenandoah and Page counties by providing education, resources, and support; and $8,250 from the Shenandoah County Department of Social Services and a total of $5,080 from the Shenandoah County Community Service Act (CSA) to continue to meet the needs of at-risk families in Shenandoah county by providing education, resources, and support.

Dr. Robin D. Anderson, with Dr. Richard F. West, Graduate Psychology, received $999,376 from the John Templeton Foundation to develop a test to assess individual differences in rational thinking; and $10,000 from Harrisonburg City Public Schools to provide funding for internship placement in classrooms and schools in Harrisonburg.

Dr. Elizabeth A. Arnold, with Dr. Katie S. Quertermous, Mathematics and Statistics, received $5,900 from the Mathematical Association of America to fund a conference for girls in grades 7-10 that will help to stimulate interest in and appreciation of mathematics, provide female mathematician role models, increase awareness of opportunities in math and science-related careers, and encourage interaction with peers and female college students.

Dr. Dabney Bankert, English, received $50,400 from the National Endowment for the Arts to support the completion of her monograph, the first to study the origins, compilation, and influence of Joseph Bosworth’s seminal work A Dictionary of the Anglo-Saxon Language.

Dr. Adriana L. Banu, Physics & Astronomy, received $10,000 from The Jefferson Memorial Trust to study the experimentally unknown cross section of the $^{22}$Mg(alpha, p)25al reaction at astrophysically relevant energies by measuring the time-inverse reaction $25a(p, alpha)22$Mg in inverse kinematics.

Dr. Cheryl L. Beverly, Learning, Technology, and Leadership Education, received a total of $270,448 from the U.S. Department of Education to provide accelerated, alternative teacher preparation and traditional professional development to increase the number of highly qualified and effective middle grade science and mathematics teachers in Hopewell City Public Schools.

Dr. David F. Bracke, College of Science and Mathematics, received $71,500 from the U.S. Fish and Wildlife Service to develop a catchment level assessment and climate change resiliency ranking for brook trout populations throughout their current range from Georgia to Maine; and $15,021 from the National Fish and Wildlife Foundation to make substantial improvements in the brook trout resources in the eastern United States by converting riparian and upland pastures to bottomland and upland forests.

Dr. Robert N. Brent, Integrated Science and Technology, received a total of $66,670 from DuPont to support the South River Science Team’s Remedial Options Program Subcommittee; to test remediation strategies for mercury contamination of the South River and South Fork Shenandoah River; and to use an experimental mesocosm test system to evaluate the ability of adsorptive media to treat the water column and reduce mercury uptake in phytoplankton.

Dr. Jo Anne Brewster, Graduate Psychology, received a total of $6,600 from the Society for Police and Criminal Psychology to perform administrative tasks for the Society.

Dr. B.J. Bryson, Social Work, received $185,734 from the Virginia Department of Education to improve academic achievement and college readiness of Waynesboro High School students by focusing on environmental education that supports in-school content.

Dr. Harold M. Butner, Physics & Astronomy, received $5,000 from the National Aeronautics and Space Administration to perform basic research related to analysis of the Herschel data and planetary observations.

Dr. Timothy J. Carter, Sociology and Anthropology, received a total of $225,646 from Carnefuse Lime & Stone to provide a field study at an archaeological site identified north of Hite Chapel Road; to complete the archaeological assessments on the Stickley Quarter, Nieswander’s Fort, and Merritt’s Cavalry Camp Sites on the Middle March Parcel; to conduct archaeological testing and assessment of Nieswander’s Fort, Wesley Merritt’s 1864 cavalry encampment, and the Stickley slave quarter sites identified as part of the ongoing cultural resources investigation being conducted on the Middle Marsh Project locale in Frederick County, Virginia; and to complete the remaining field work north of Hite Chapel Road, to complete the initial report of findings, and to file the sites identified in the Middle Marsh Run, Northern Reserve and Middletown Wood project areas with the Virginia Department of Historic Resources.

Dr. Anca Constantin, Physics & Astronomy, received $10,000 from The Jefferson Memorial Trust to identify the physical conditions that show the strongest links to maser activity, and thus to provide efficient criteria for mega-maser hunting.

Dr. Costel Constantin, Physics & Astronomy, received $3,000 from the Nanoscale Informal Science Education Network to help K-12 teachers incorporate nanoscience concepts and applications into the framework of Virginia’s Standards of Learning for Science (SOL).

Dr. David B. Daniel, with Dr. Kristztina V. Jakobsen, Psychology, received $4,250 from the International Mind, Brain & Education Society to contribute to the funding and growth of IMBES and the creation of a journal called “Mind, Brain, Education.”

Dr. Thomas C. DeVore, Chemistry & Biochemistry, received $9,500 from the Academy of Applied Science to conduct the Virginia Junior Science & Humanities Symposium.

Dr. Daniel M. Downey, with Dr. Gina M. MacDonald, Chemistry & Biochemistry, received a total of $109,442 from the National Science Foundation to provide undergraduate chemistry research students with the opportunity to develop improved communication tools and methods in science, as well as enhance day-to-day communication between hearing and deaf students; and $10,000 from the USDA Forest Service to inventory the water quality of forest streams and monitor the effects on stream water chemistry of implementing the
Dr. Carol C. Dudding, Communication Sciences and Disorders, received $225,479 from the Virginia Department of Education to provide an American-Speech-Language-Hearing Association accredited masters program in Communication Sciences and Disorders.

Dr. Beth A. Eck, Sociology and Anthropology, received $41,018 from Carmeuse Lime & Stone to complete the archaeological investigations at the Stickley Quarter Site on the Middle Marsh Parcel West of Middletown, Virginia.

Dr. Elizabeth S. Edwards, Kinesiology, received a total of $3,750 from The LPGA Foundation to support the LPGA-USA Girls Golf of Harrisonburg, Virginia at James Madison University.

Dr. Klebert B. Feitosa, Physics & Astronomy, received $15,000 from Research Corporation to conduct the transient fluidization regime of a simple yield stress fluid at the particle level by closely probing the onset of flow of a dense non-adhesive emulsion confined to flow in a narrow channel.

Ms. Carol A. Fleming, Outreach and Engagement, received $47,539 from the State Council of Higher Education for Virginia (SCHEV) to identify students that have previously enrolled at JMU and reach out and help them create a pathway back to degree completion and career goal attainment.

Ms. Kimberley A. Foreman, Institute of Certified Professional Managers, received $315,481 from the Institute of Certified Professional Managers to maintain the organization’s national headquarters on the campus of James Madison University.

Dr. Diane L. Foucar-Szoecki, Learning, Technology, and Leadership Education, received a total of $750,000 from the Virginia Department of Education to establish a Community Learning Center at Skyline Middle School; to establish the Smithland Community Learning Center, linking the Big Brothers Big Sisters AMP IT UP Academic Mentoring program and the Career Development Academy Adult and Family Learning Center for quality out-of-school, extended day programming; to offer high quality, affordable contextualized EL CIVICS services to area immigrants and refugees for their achievement of English language proficiency and civic understanding; and to implement new efforts targeting English (reading/writing) with the intention of removing Thomas Harrison Middle School from English and School Improvement status and strengthening the community learning center efforts for enduring sustainability.

Dr. Joanne V. Gabbin, Furious Flower Poetry Center, received $6,900 from the Virginia Commission for the Arts to sponsor an event in celebration of Nobel Prize winner, Toni Morrison.

Dr. Kevin L. Giovanetti, with Dr. M. Ioana Niculescu, and Dr. Gabriel Niculescu, Physics & Astronomy, received $89,271 from the National Science Foundation to develop and construct the forward tracking system, hodoscope and read-out electronics of the forward tagger for the CLAS12 detector at Jefferson Lab.

Mr. Alleyn S. Harneed, Virginia Clean Cities, received a total of $121,892 from the Virginia Department of Mines, Minerals and Energy to collect and report on information relating to alternative fuel production and to support JMU Virginia Clean Cities’ work; $10,000 from the U.S. Department of Energy to accelerate the introduction and deployment of domestically produced alternative fuels and energy efficient vehicles in a variety of National Park Service units across the United States; and with Mr. Kenneth F. Newbold, Jr., Research and Public Service, to advance the Richmond region as an attractive and sustainable market for electric vehicle technology.

Dr. Reid N. Harris, Biology, received $5,000 from the Columbus Zoo and Aquarium to investigate the function of hellbender microbial communities by determining if the compositions of bacterially-produced metabolites are constant and are capable of inhibiting the amphibian chytrid fungus; and with Mr. Andrew Loudon, Biology, $6,000 from Gregory Lipp, LLC to investigate the function of hellbender microbial communities by determining if the compositions of bacterially-produced metabolites are constant and are capable of inhibiting the amphibian chytrid fungus; $920 from the National Science Foundation to fund travel to a principal investigator’s meeting at the National Science Foundation; with Ms. Molly C. Bletz, Biology, $24,971 from the Mohamed bin Zayed Foundation to develop effective probiotic conservation strategies to mitigate chytridiomycosis outbreaks in Malagasy amphibians in order to preserve the island’s remarkable amphibian biodiversity; and with Ms. Molly C. Bletz, $944 from the Tree Walkers International Amphibian Conservation Partnership Fund to investigate the transmission and maintenance of anti-BD bacteria on amphibians and the importance of environmental reservoirs for probiotic conservation strategies, and to address biosafety concerns of bioaugmentation.

Ms. Kimberlee Hartzler-Weakley, Institute for Innovation in Health and Human Services, received a total of $471,239 from the Virginia Department of Education to provide educational assessments to children birth to age 21 with special education needs in accordance with the rules and regulations of the Virginia Board of Education; to provide supplemental educational services to the children of migrant farm workers in collaboration with local school districts and to assess language and educational experience and progress of individual students; and to establish the Spotswood/Waterman Community Learning Center, linking in- and out-of-school learning through afterschool school-based and community-based enrichment, and school- and community based Family Literacy Nights; $3,120 from Rockingham Memorial Hospital to address substance abuse in culturally appropriate ways and learn environmental strategies through praxis; $10,000 from the Virginia Department of Health to provide specialized medical, psychological, psychosocial, educational, and speech/language/audiology services to children and young adults under the age of twenty-one; $10,000 from the Harrisonburg Police Department to conduct the Law Enforcement Interpreter Training in partnership with the Harrisonburg Police Department; $458,032 from the Administration on Children, Youth, and Families to emphasize both abstinence and contraception and address the adulthood preparation subjects of healthy relationships, parent-child communication, educational and career success, healthy life skills, and adolescent development in order to significantly reduce the number of teen pregnancies in the Harrisonburg, Rockingham, and Page areas of Virginia; a total of $79,644 from the Harrisonburg-Rockingham Community Services Board to provide interpretation services to non-English speaking clients; $66,570 from Virginia Commonwealth University to promote health careers and access to primary care for medically underserved populations through community-academic partnerships; $9,581 from the Virginia Department of Social Services to combine the strengths of the Healthy Families of Page County program with The Reading Road Show’s Gus Bus Program to help at-risk new parents and young families; $69,700 from the Virginia Health Workforce Development Authority to partner with public and private schools focusing on the high priority target areas, to introduce underrepresented minority students to health careers; increase their interest in pursuing health professions; and increase success in school through parent education, student goal setting, and individual barrier reduction, with the long-term goal of increasing the diversity of the healthcare workforce; $16,060 from an anonymous collaborator to build collaborative partnerships between public and private entities to ensure that all children enter school ready to learn; a total of $2,669 from the Office on Children and Youth to aid in preventing teen pregnancy; a total of $16,050 from the Page County Public Schools, $940 from the Harrisonburg City Public Schools, $144 from individual donors, and a total of $18,731 from private re-
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<tr>
<th>Source</th>
<th>Funding Amount</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Geographic Alliance</td>
<td>$50,000</td>
<td>To sponsor the 4th National Summit on Geospatial Technologies in K-12 classrooms; and with Dr. Brianna Quinn, Educational Programs, $29,000 from the Virginia Department of Education to develop and deliver courses via distance education and expand student participation for the Visual Impairments Consortium.</td>
</tr>
<tr>
<td>Virginia Department of Education</td>
<td>$9,968</td>
<td>To continue to assess needs and services provided to consumers in Region 5 following each consultation and training event provided by the Training/Technical Assistance Center’s staff; to support statewide efforts and activities designed to enhance service effectiveness for personnel in superintendents’ region 5 who serve children and youth with disabilities; and with Ms. Cheryl L. Henderson and Mr. John T. McNaught, Training/Technical Assistance Center, to provide direct instruction, models, and opportunities to practice skills associated with self-determined behavior beginning at the elementary level and continuing through the student’s educational career, and to enable students to identify and adequately communicate areas of need, and to empower teachers through garnering a feedback learning loop on how best to cater toward student’s needs.</td>
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<td>Virginia Geographic Alliance</td>
<td>$50,000</td>
<td>To conduct summer workshops and support teachers with curriculum implementation of the integrated STEM and engineering design activities into their mathematics and science classrooms that are aligned with the Standards of Learning (SOL).</td>
</tr>
<tr>
<td>Virginia Geographic Alliance</td>
<td>$12,700</td>
<td>To sponsor the 4th National Summit on Geospatial Technologies in K-12, a conference on the use of geospatial technologies across the K-12 curriculum, coupled with a workshop on geospatial technologies for Virginia middle and high school teachers; $31,893 from Temple University to design and execute a classroom-based study of student spatial thinking; and $49,953 from the National Aeronautics and Space Administration to address a research gap in the dual use of visualization tools for the advancement of science and for the improvement of education in and outside of the classroom.</td>
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<tr>
<td>Virginia Department of Education</td>
<td>$81,485</td>
<td>To provide summative assessment tools to educators and students to support instruction, models, and opportunities to practice skills associated with self-determined behavior beginning at the elementary level and continuing through the student’s educational career, and to enable students to identify and adequately communicate areas of need, and to empower teachers through garnering a feedback learning loop on how best to cater toward student’s needs.</td>
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<td>Virginia Department of Education</td>
<td>$1,846,306</td>
<td>To provide high-quality professional development for high school English teachers.</td>
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<tr>
<td>U.S. Department of Energy (DoE) Smart Grid Program</td>
<td>$141,292</td>
<td>To study the dual use of visualization tools for the advancement of science and for the improvement of education in and outside of the classroom.</td>
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<td>$1,346,306</td>
<td>To provide high-quality professional development for high school English teachers.</td>
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<td>To support infrastructure vulnerability assessments being conducted at several military installations in the Mid-Atlantic region - initially focusing on the US Naval Academy at Annapolis, MD.</td>
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<td>Virginia Department of Education</td>
<td>$112,666</td>
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<tr>
<td>Virginia Department of Education</td>
<td>$10,000</td>
<td>To provide assistance for the Visual Impairments Consortium.</td>
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<td>Virginia Department of Education</td>
<td>$28,655</td>
<td>To support infrastructure vulnerability assessments being conducted at several military installations in the Mid-Atlantic region - initially focusing on the US Naval Academy at Annapolis, MD.</td>
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greatest cortical brain response to vibrotactile stimulation in healthy volunteers; $3,031 from Purdue University to provide data from patients with Parkinson’s disease from the use of a SpeechVive device; and $78,645 from the National Institutes of Health to develop and validate tools to diagnose Spasmodic Dysphonia; measure severity, and determine the impact of SD on disability and quality of life via a multi-center clinical study.

Dr. Eric H. Maslen, with Dr. Carole L. Nash, Integrated Science and Technology, received $4,500 from the Wintergreen Nature Foundation to continue the documentation of Native American archaeological sites at Wintergreen.

Dr. Christine L. May, Biology, received $1,000 from the National Wildlife Federation for a student to test the relationship between predatory brook trout and sculpin, on the aquatic invertebrate prey species, stonelly, and the role that sedimentation takes in that relationship.

Dr. Eric J. Pyle, Integrated Science and Technology, received $20,000 from an industry collaborator to formalize the WindApplications Center (WAC) at James Madison University and to employ a novel Wind for Schools (WFS) facilitation scheme for K-12 schools in the Commonwealth of Virginia.

Dr. Jonathan D. Monroe, Biology, received $112,318 from the National Science Foundation to characterize the physiological functions of five plastid-targeted β-amylases in Arabidopsis.

Dr. Thomas E. Moran, Kinesiology, received $28,000 from the Merck Foundation to provide mentorship programming and instructional skills for underserved children; and $10,000 from the Warren G. Stambaugh Memorial Foundation to provide programming in specific public schools within the Shenandoah Valley and to conduct an early intervention physical activity and nutrition program.

Dr. Jacqueline K. Nagel, Department of Engineering, received $8,496 from the National Institute of Standards and Technology to provide an undergraduate student with valuable research experience at the laboratories of the National Institute of Standards and Technology that offers unique research and training opportunities for undergraduates, providing a research-rich environment and exposure to state of the art equipment.

Dr. Robert L. Nagel, Department of Engineering, received $30,982 from the General Motors Company to understand and provide the methodology for using customer perception of failure and function as indicators to actual system failures; to focus on scalability of the approach, applying the methodology to a vehicle sub-system as well as developing the framework for the service technician product diagnostic tool.

Dr. Carole L. Nash, Integrated Science and Technology, received a total of $79,000 from the National Park Service to provide archaeological services for Shenandoah National Park by reviewing proposed project work that could impact archaeological resources and inspecting the proposed project area in the field.

Mr. Kenneth F. Newbold, Jr., Research and Public Service, with Mr. Allyn S. Harned, Virginia Clean Cities, received $226,351 from Virginia Clean Cities, Inc. to reduce petroleum consumption in the transportation sector by advancing the use of alternative fuels and vehicles, idle reduction technologies, hybrid electric vehicles, fuel blends, and fuel economy; with Mr. Donald R. Sullenberger, Shenandoah Valley Partnership, $211,700 from Shenandoah Valley Partnership to provide quality economic development support services for its regional members, to prospects, existing business, and the Virginia Economic Development Partnership; $49,347 from the Shenandoah Valley Technology Council to support the salary for Shenandoah Valley Technology Council coordinator/director and an assistant, and operational expenses; and $1,162,776 from I2, Inc. to provide a Visual Investigative Analysis Software License.

Dr. Cynthia R. O’Donoghue, Communication Sciences and Disorders, received $45,500 from the Scottish Rite Foundation of Virginia to continue support of the JMU Scottish Rite Language Disorders Clinic; and with Dr. Marsha Powell, Communication Sciences and Disorders, $7,500 from individual donors to provide communication intervention services for children with Autism.

Dr. Edwin M. O’Shea, with Dr. Eva M. Strawbridge, Mathematics and Statistics, received $3,125 from the Center for Undergraduate Research in Mathematics (CURM) to study another potential generalization of Euler’s result called the "Alder conjectures" by utilizing techniques coming from the enumeration of lattice points in polyhedra.

Ms. Remy M. Pangle, Integrated Science and Technology, received $5,000 from the Dominion Foundation to support the Virginia Kid Wind Challenge, allowing students to compete in constructing wind turbines to generate electricity while learning about the advantages of wind energy.

Dr. Stacey L. Pavelko, Communication Sciences and Disorders, with Dr. Carol C. Dudding, received $9,471 from the Virginia Department of Education to respond to the need for Language Sample Analysis (LSA) by identifying barriers to use of LSA in clinical practice and by developing a training program to teach speech-language pathologists how to more efficiently and effectively collect and analyze language samples.

Dr. Eric J. Pyle, Geology and Environmental Science, received $13,629 from the U.S. Department of Education to coordinate STEM coursework offered and to develop, deploy, and communicate results of STEM secondary content course and elementary institute science concept needs assessments among the teachers participating in the project.

Dr. Ronald W. Raab, Integrated Science and Technology, received $20,000 from LINA Innovations to develop a novel protein purification system that can ultimately be adapted to large-scale production of kilogram quantities of protein.
Mr. Gary S. Race, Institute for Innovation in Health and Human Services, received a total of $1,189,185 from the Virginia Department of Health to develop an interactive online learning module using live training content; to maintain the Home Visiting Consortium website, to continue to operate its web-based training registration system, and to continue to provide periodic reports on the home visiting registration; to overseer the Heart Disease and Stroke Prevention (HDSP) efforts through the HDSP and WiseWoman Programs to promote evidence-based health and wellness programming to reduce risk for heart disease and stroke primarily in worksite, health system and school settings; to provide coordination of training and shelter-based health services; to oversee the Virginia WISE-WOMAN (Well-Integrated-Screening and Evaluation for Women-Across-the-Nation) Program (VAWWP) provision of services and delivery of the WISEWOMAN Lifestyle Intervention by participating provider sites, and to serve as the liaison between the provider sites’ Lifestyle Counselors and the WISEWOMAN project; and with Ms. Jane Hubbell, to assure the provision of comprehensive, essential health and support services for individuals and families with HIV infection; $143,724 from the Valley Aids Network (VAN) to provide university and administrative services; $10,398 from Virginia Commonwealth University to develop and provide an educational training curriculum for patient navigators along with training manuals; $471,421 from a private donor to provide interpretation services to non-English speaking clients; $18,750 from individual donors to offer training programs and language proficiency examinations to prospective interpreters; and $41,069 from Rockingham Memorial Hospital to offer motivational interviewing to home visiting staff with families with children in out-of-home placement or at risk for out-of-home placement due to substance abuse.

Dr. Barbara A. Reisner, Chemistry & Biochemistry, received $19,711 from the National Science Foundation through Earlham College to develop, share, implement, and refine educational materials and teaching strategies for inorganic chemistry.

Dr. Ayasakanta Rout, Communication Sciences and Disorders, received $12,000 from the Virginia School for the Deaf and Blind to assign a JMU graduate student from the audiology program to the Virginia School for the Deaf and Blind as an aural (re)habilitation graduate assistant.

Dr. Kenneth R. Rutherford, Center for International Stabilization & Recovery, received a total of $1,074,587 from the U.S. Department of State to foster management skills at the senior level of global mine-action activities by providing tools necessary to make effective policy and practice decisions; to encourage and stimulate the support of programs undertaken by the Bureau of Political-Military Affairs, Office of Weapons Removal and Abatement by acting as an information clearinghouse: identifying, gathering, managing, and distributing information; to improve the lives and well-being of Syrian refugees residing in Jordan by carrying out a theatrical program that combines messages addressing issues relevant to daily life as refugees with explosive remnants of war and landmine awareness messages; and to provide a training opportunity and additional staffing support for the Frasure-Kruzel-Drew Humanitarian Mine Action Fellowship; $226,113 from a private donor to serve as the depository and active agent for continuing peer support intellectual capability, trainings and program implementation in post-conflict countries including Africa, the Middle East, and Latin America; $22,296 from the Organization of American States to review and evaluate progress of the Colombia Mine Action Program relevant to the 2009 Plan of Action; a total of $45,916 from the Geneva International Centre for Humanitarian Demining to provide a comprehensive picture of the operation of the mine victim information systems in Bosnia-Herzegovina and Colombia; and to prepare a description of the existing institutional architecture for disability programming in Vietnam; a total of $105,437 from Fibertek, Inc. to facilitate the exchange of information relevant to issues of test evaluation and of research and development for mine action and to enhance the UXOCOE database with information on the needs of and latest developments in the humanitarian demining community, including academics, foreign governments, non-governmental organizations (NGOs), and commercial entities; a total of $28,924 from Action on Armed Violence (AOAV) to provide psychosocial support to facilitate the healing process of victims of armed violence in Burundi; and $19,991 from the World Bank to provide data covering calendar years 2010, 2011, and 2012 to the World Bank landmine/explosive remnants of war database, and make mine action experts available to provide overall guidance for the project.

Dr. Brenda M. Ryals, Communication Sciences and Disorders, received $35,000 from the American Auditory Society to support the Editor-in-Chief of the Ear and Hearing Journal.

Dr. Michael J. Saunders, with Dr. Nick D. Luden, Kinesiology, received $68,903 from the Dairy Research Institute to investigate the efficacy of carbohydrate and protein intake to support athletes during heavy training.

Dr. Giovanna Scarel, Physics & Astronomy, received $10,000 from The Jeffress Memorial Trust to broaden the understanding of the interaction between polarized electromagnetic infrared radiation and thin films of dielectric materials.

Dr. Sean T. Scully, Physics & Astronomy, received $104,361 from NASA Goddard to continue studying intergalactic background light, concentrating on high redshifts and the UV-optical energy range.

Dr. Kyle N. Seifert, Biology, with Dr. Robert L. Mckown, Integrated Science and Technology, received $60,085 from the U.S. Army Medical Research and Material Command (USAMRMC) to study the levels of the novel glycoprotein lacritin in human tears after laser refractive surgery.

Dr. James M. Shaeffer, Outreach and Engagement received $2,000 from the Verizon Foundation to support the annual Shenandoah Valley Technology Council’s Awards Gala Tech Nite at JMU, and $40,592 from the Virginia Department of Correctional Education to provide staff development and training programs.

Dr. Margaret B. Shaeffer, College of Education, with Dr. Lee G. Sternberger, International Programs, received $174,852 from the U.S. Department of State to create a community of learners among the International Leaders in Education Program (ILEP) Fellows and to connect and amplify the diverse ILEP experiences while providing basic instruction in fundamental principles and techniques of lesson planning, classroom management, student-centered learning, assessment, differentiated instruction, adult learning, facilitation and leadership.

Off. William L. Simmons, Department of Public Safety/Police, received a total of $1,500 from Walmart to purchase more First Aid Kits and replenish the supplies most frequently used by the Officers and to purchase equipment that will help educate the JMU Police Cadets with workforce readiness training and job related skills.

Dr. Kristen E. St. John, Geology and Environmental Science, received $6,000 from the National Association of Geoscience Teachers to provide Editor-in-Chief services for three volumes of the Journal of Geoscience Education.

Dr. Lee G. Sternberger, with Dr. Jennifer E. Coffman, International Programs, Dr. Brillian Muhonja, Dr. Giuliana Fazzion, Foreign Languages, Literatures and Cultures, and LTC. Robert E. Pettit, III, Military Science, received a total of $404,035 from the Institute of International Education, Inc. to recruit ROTC students to learn Swahili and cultures of East Africa.

Dr. Stephanie B. Stockwell, Integrated Science and Technology, received $10,000 from The Jeffress Memorial Trust to complete and publish the EfgA NTD structure/function analysis and sequence and annotate the wild type B. japonicum strain.
Dr. Trevor F. Stokes, The Alvin V. Baird Attention and Learning Disabilities Center, received $35,500 from the Shenandoah Valley Regional Program to provide student internships for educational experience through involvement in professional activities in the area of applied behavior analysis within the school districts associated with the Shenandoah Valley Regional Program; and $18,000 from the Matthew’s Center to sponsor two master’s level students in connection with an internship field experience provided by the Matthew’s Center.

Mr. E. David Stoops, Libraries & Educational Technologies, received $2,500 from the Virginia Department of Historic Resources to support a JMU student who will be assisting the Department of Historic Resources with enhancements to its website.

Dr. Eva M. Strawbridge, with Dr. Edwin M. O’Shea, Mathematics and Statistics, received $3,125 from the Center for Undergraduate Research in Mathematics (CIRUM) to investigate the locomotion of the nematode worm Caenorhabditis elegans to explore how molecular level mechanics are converted into organismal motility.

LTC. Nick D. Swayne, College of Education, received a total of $87,618 from Virginia City & County Donors, $5,000 from Industrial Medium Inc., $1,000 from Science Applications International Corporation (SAIC), and $1,000 from various sources to provide sponsorship of robotics teams; $30,000 from the Rockwell Collins Charitable Corporation to help promote growth of the FIRST LEGO league in Washington, D.C., as well as in rural areas and school divisions with Title I designation; and with Dr. Kevin L. Giovanetti, Dr. Gabriel Niculescu, Physics & Astronomy, and Dr. Cynthia A. Klevickis, Integrated Science and Technology, $169,997 from the State Council of Higher Education for Virginia (SCHEV) to provide upper elementary, middle school, and high school personnel of Martinsville, Hopewell, Richmond, Harrisonburg, Waynesboro, Staunton, and Augusta, and Page Counties with a unique STEM development and instructional strategies program in using robotics to enhance SOL/STEM content.

Dr. Wayne S. Teel, Integrated Science and Technology, received $15,000 from the Environmental Protection Agency to design and build two biochar pyrolysis systems on two Shenandoah farms to increase farm productivity and reduce potential nutrient pollution problems in their respective watersheds.

Dr. Roger J. Thelwell, Mathematics and Statistics, received $27,500 from the Mathematical Association of America to continue the M3 summer program to foster mathematical development and personal mentorship.

Dr. Megan E. Tracy, Sociology and Anthropology, received $5,119 from the National Science Foundation to focus on the ethical, economic, political, and technological questions raised when animal welfare is constructed as the means to ensure safe food of animal origin for consumers.

Dr. Brian C. Utter, Physics & Astronomy, received a total of $224,393 from the National Science Foundation to understand the influence of surface chemistry on the jamming and flowing of submerged granular flows; and with Dr. Klebert B. Feitosa, Physics & Astronomy, Dr. Kyle G. Gipson, Department of Engineering, and Dr. Kevin L. Caran, Chemistry, to enable interdisciplinary research involving significant undergraduate participation, collaboration within and beyond JMU’s Center for Materials Science, and meaningful student learning.

Dr. Steven J. Whitmeyer, Geology and Environmental Science, received $9,846 from the Virginia Department of Mines, Minerals and Energy to support geologic mapping and stratigraphic analyses of the eastern half of the Rileyville 7.5’ Quadrangle, Virginia; and with Dr. Shelley J. Whitmeyer, Geology and Environmental Science, received $21,984 from Google to facilitate the development of time- and space-dependent geoscience and environmental educational modules.

Dr. Jacqueline A. Williams, Kinesiology, received $47,000 from the Virginia Department of Education to provide funding for a high-quality health and physical education content/teaching summer institute.

Dr. James W. Wilson, Geographic Science Program, received $23,412 from the National Science Foundation to develop and deliver educational materials related to the portal, tools, and ontological repository for use in undergraduate university courses.

Dr. William C. Wood, Center for Economic Education, received $60,499 from Shenandoah Valley Economic Education, Inc. to continue hosting a Shenandoah Valley Economic Education funded teacher outreach program in economic education.

Dr. Nathan T. Wright, Chemistry & Biochemistry, received $10,000 from The Jeffress Memorial Trust to use high-resolution structural techniques to explore the molecular and biophysical basis of the obscurin-titin interactions.
**RESEARCH COMPLIANCE**

The Office of Research Integrity (ORI) is responsible for monitoring regulatory changes and recommending institutional responses to ensure compliance, and oversees the development and implementation of policies, procedures, programs, and educational activities which satisfy federal, state, and institutional regulations governing the research ethics and responsible conduct of research. ORI plays a crucial role in the coordination and documentation of all research involving animals, human subjects, biosafety, research misconduct, and financial conflict of interest.

**INSTITUTIONAL REVIEW BOARD**

The Institutional Review Board (IRB) is responsible for ensuring compliance with all federal and state regulations regarding research with human subjects. As a continuation of regulatory compliance service to the faculty and student research community, ORI administered the review, editing, distribution, and approval process of 580 Human Research Protocols during the 2012-2013 academic year and the training of 1,379 individuals.

**INSTITUTIONAL ANIMAL CARE & USE COMMITTEE**

ORI also coordinates all institutional animal care and use (IACUC) activity and laboratory inspections at the university to ensure federal animal care and use regulations are observed in animal laboratories. Training in ethical animal care and use was provided for 183 investigators and 26 protocols were reviewed.

**INSTITUTIONAL BIOSAFETY**

Similarly, ORI provides administrative support to the Biosafety Committee. During the Academic Year, ORI facilitated processing 12 protocols and provided training to 58 individuals.

**RESPONSIBLE CONDUCT OF RESEARCH**

The ORI also provides training for the Responsible conduct of Research to comply with mandated federal sponsor guidelines, which promote integrity in the proposing, planning, conducting, reporting, and reviewing of research. During the 2012-2013 academic year, 183 individuals were trained in the responsible conduct of research.

**FINANCIAL CONFLICT OF INTEREST**

The ORI also recently began to provide training for Financial Conflict of Interest in response to federal regulations at the beginning of the academic year. A total of 68 individuals were trained. The management and training associated with research integrity continues to be a very active area for the office and staff.

**FY 2013 Compliance Quick Facts**
- 580 IRB protocols processed
- 1,379 individuals trained in Human Research
- 26 IACUC protocols reviewed
- 183 individuals trained in human care and use of animals in research
- 58 individuals trained in biosafety
- 12 Biosafety proposals reviewed
- 183 Trained in Responsible Conduct of Research
- 68 individuals trained in financial conflict of interest

"The more important reason is that the research itself provides an important long-run perspective on the issues that we face on a day-to-day basis."
— Ben Bernanke, American economist and currently chairman of the Federal Reserve