NORTHERN ILLINOIS UNIVERSITY  
OFFICE OF SPONSORED PROJECTS  

SUMMARY OF GRANT/CONTRACT AWARDS – FISCAL YEAR 2014  

April 1, 2014 – June 30, 2014

<table>
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<tr>
<th>Source</th>
<th>THIS REPORT</th>
<th>CUMULATIVE</th>
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<tr>
<td>Federal Government</td>
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<td>State of Illinois</td>
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<td>Corporate</td>
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<td>Total</td>
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<td>36,596,059</td>
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<td>Total</td>
<td>8,818,063</td>
<td>36,596,059</td>
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STUDENT FINANCIAL AID: $32,008,890

ACCOUNTANCY

PricewaterhouseCoopers for "Business Risks Associated with the Use of Shadow IT Systems in Organizations." James C. Young.
Award: $10,000.00.

The purpose of this project is to gather data regarding the extent of shadow IT systems for use in strategic and operational decision making, financial reporting/analysis, and compliance; factors contributing to their use; and the extent to they are reviewed for errors or control weaknesses.

U.S. Army Medical Department for "United States Army Medical Command (USAMEDCOM)IPA." Tim West.
Award: $112,291.00.

The purpose of this project is to support Professor West's research efforts in the area of performance-based budgeting acceptance, usage and performance effects across the USAMEDCOM.

BIOLOGICAL SCIENCES

Lake County Forest Preserve District for "Ecological Assessment of District Lands." Richard B. King/Holly Jones/Nicholas Barber.
Award: $30,296.00.

The purpose of the project is to provide field data collection and reporting over the course of a 7-month assessment of the presence of fauna species in multiple forest preserves throughout Lake County.

Award: $9,900.00.

The purpose of this project is to conduct a herpetofaunal survey to identify frogs, toads, salamanders, turtles, snakes, and lizards at Goose Lake Prairie.

Ohio State University for "Delayed Neonatal Growth in the Lake Erie Watersnake." Elizabeth Mack/Richard B. King.
Award: $10,000.00.

An important addition to the post-delisting monitoring plan of the Lake Erie Watersnake is a study of neonatal growth and survival and their influence on the persistence of this threatened species.

CAREER SERVICES

The main goal of the project is to provide NIU students with career-related experiences.


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CENTER FOR GOVERNMENTAL STUDIES
Various Sponsors for “Sales and Service Agreements.” Diana L. Robinson.  
Award $588,239.00.  
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

Department of the Army for "National Guard Economic Impact Study." Brian Richard.  
Award: $3,019.00. (Cumulative $25,000.00).  

The purpose of this project is to conduct an economic impact study for the National Guard.

CHEMISTRY AND BIOCHEMISTRY  
Award: $20,185.00. (Cumulative $240,000.00).  

The purpose of this project is to work toward the total synthesis of several natural products using superelectrophilic reactions. With the development of better synthetic reactions, the costs for consumer products may be lessened and industrial processes can become more environmentally friendly.

Award: $13,230.00. (Cumulative $44,989.00).  

The purpose of this project is to prepare, characterize and improve new materials for energy efficiency and environmental application.

National Institute of Allergy and Infectious Diseases/NIH/DHHS for "Design and Study of IspF Inhibitors as Antibacterial Agents." Timothy Hagen/James Richard Horn/R. Meganathan.  
Award: $356,130.00.  

This interdisciplinary research works to discover new anti-infective agents to treat bacterial infections.

COLLEGE OF BUSINESS, DEAN'S OFFICE  
Award: $1,712,500.00.  
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Various Sponsors for "Experiential Learning Center Corporate Project." Joan Petros.  
Award: $71,500.00.  
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

COLLEGE OF EDUCATION, DEAN'S OFFICE
Various Sponsors for "Contract Courses." La Vonne Neal.
Award: $903,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Illinois Board of Higher Education for "Promoting Achievement through Literacy Skills across High School Curriculum." Connie Fox/McCord, Christopher.
Award: $198,000.00.
April 1, 2014 - September 30, 2015. (Instructional Programs) Instructional Programs.

The major goals of the collaborative project between Rockford Public Schools 205 and NIU are to improve instructional and leadership skills of administration and to increase the knowledge, skills, and abilities of teachers to align with Illinois Common Core State Standards.

COLLEGE OF ENGINEERING & ENGINEERING TECH, DEAN'S OFFICE

National Safety Education Center for "OSHA Host Site Courses." Omar A. Ghrayeb.
Award: $252,600.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Award: $140,059.00. (Cumulative $1,200,059.00).

Aerospace Micro-Mesoscale Manufacturing (AM3) open manufacturing program addresses the productivity limitations of the current generation of direct digital manufacturing.

Award: $64,000.00. (Cumulative $224,000.00).
October 1, 2013 - October 31, 2014. (Instructional Programs) Instructional Programs.

Funds are used for professional development experiences for middle school math and science teachers through an intensive workshop program with follow up visitations during school year.

National Safety Education Center for "NSEC Consortium Partner Courses." Omar A. Ghrayeb.
Award: $275,465.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Award: $176,285.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Liquitech, Inc. for "Copper Silver Ionization (Phase I)." Mansour Tahernezhadi/Pradip Majumdar.
Award: $17,130.00.

The purpose of this project is to enhance the performance of the copper silver ionization system
by establishing relationships between the amounts of current that passes through the electrodes, the flow of water, and the ionic concentration.

COMPUTER SCIENCE

Argonne National Laboratory for "System Software Integration and Development." Nicholas T. Karonis.
Award: $204,604.00. (Cumulative $440,846.00).

The purpose of this project is to provide support to ANL's Advanced Integration Group through contributions to cobalt scheduling, port operational assessment reporting, and MPI support.

ENGLISH

Illinois Humanities Council for "Orlando: Writing the World Across the Centuries." Diana Swanson.
Award: $4,500.00.

This project supports the talk-back sessions after the performances of "Orlando" in the context of the 24th annual International Conference on Virginia Woolf, in Chicago.

GEOGRAPHY

Award: $101,258.00. (Cumulative $193,934.00).

Funds will be used to provide an independent estimate of the minimum volume of sediments that would have been eroded and the minimum volume of water required to form the observed VN on a global scale.

Award: $42,442.00. (Cumulative $62,292.00).

The purpose of this project is to create various GIS maps for the Village of Carol Stream.

Private Sponsor for "Revisiting the Precision Agriculture Management Zone Problem through Big Data." Andrew J. Krmenec.
Award: $20,000.00.

The purpose of this project is derive further value of a big data repository that contains a wide variety of information regarding soil condition, crop environment, management input, weather, and crop yield.
Consortium for Ocean Leadership for "Diatom-based climate history of the recent and Holocene Baltic Sea." Jonathan P. Warnock.
Award: $12,943.00.
The funds are used for salary support of the PI while on research expedition.

National Science Foundation for "Collaborative Research: Catalyzing Early Career Partnerships to Promote Discipline-Based Education Research in the Geosciences." Nicole LaDue.
Award: $14,745.00.
The goal of the project is to develop a workshop to catalyze relationships between disciplinary researchers in the earth, atmospheric, ocean, and polar sciences and discipline-based education researchers (DBERs) in the geosciences.

National Science Foundation for "Copper and Gold in sulfur-rich magmatic-hydrothermal systems." Mark R. Frank.
Award: $190,381.00.
Concentrations of copper and gold in a sulfur-rich ore fluid can change with temperature and pressure fluctuation. The approach outlined in this proposal will provide important data on copper and gold in magmatic hydrothermal fluids.

ILLINOIS COUNCIL ON ECONOMIC EDUCATION
Award: $21,596.00. (Cumulative $56,492.00).
Funding is being used to carry out administrative functions for Econ Illinois.

INDUSTRIAL ENGINEERING
3M Corporation for "Improving Warehouse Operations at 3M Distribution Center."
Purushothaman Damodaran/Omar A. Ghrayeb.
Award: $77,021.00. (Cumulative $267,413.00).
Funds will be used to assist 3M in improving the operations at the new 3M distribution center in DeKalb.

Award: $10,000.00.
The purpose of this project is to characterize the difference in physiological responses and
subjective comfort across seat conditions.

Dunlee, a Division of Philips Healthcare for "Senior Design Project - Ergonomic Material Handling." Purushothaman Damodaran.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Dunlee, a Division of Philips Healthcare for "Senior Design Project - Throughput Improvement at Dunlee." Purushothaman Damodaran.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Six-Sigma for "Lean Six Sigma Certificate Training (Yellow and Green Belt Training)." Purushothaman Damodaran.
Award: $64,500.00. (Cumulative $64,500.00).
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

SPX Hydraulic Technologies for "Senior Design Project - Process Evaluation and Improvement of Assembly Workstations at SPX." Purushothaman Damodaran.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

SPX Hydraulic Technologies for "Senior Design Project - SPX: Parts presentation of the GP70 pump." Purushothaman Damodaran.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

CST Storage for "CST Storage CNS Efficiency Project." Purushothaman Damodaran.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Austin-Westran for "Senior design project - Austin-Westran Inventory Control." Damodaran, Purushothaman.
Award: $6,000.00.
July 1, 2013 - June 30, 2014. (Instructional Programs) Instructional Programs.

Award: $16,500.00. (Cumulative $109,400.00).

The purpose of this project is to model different areas related to one of CAT's Aurora facilities in order to identify different factors affecting total cycle time and work-in-process inventory.
LEADERSHIP, EDUCATIONAL PSYCHOLOGY AND FOUNDATIONS

University of Kansas for "Development and Validation of Online Adaptive Reading Motivation Measures." Stephen Tonks.
Award: $43,113.00. (Cumulative $184,550.00).

Funds will be used to develop and validate an online adaptive measure of reading motivation for adolescents.

MATERIALS MANAGEMENT

Award: $120,000.00.
May 1, 2014 - April 30, 2015. (Other Sponsored Activities) Other.

Funds will be used for energy efficient upgrades to the lighting systems in the NIU facilities, enhancing lighting quality, saving money, and improving the environment.

MECHANICAL ENGINEERING

Ohio State University for "OSU-DOE LENS Project." Federico Sciammarella.
Award: $5,000.00.

The purpose of this project is to fabricate the Case Western thermal fatigue dunk test geometry via the LENS process.

Award: $15,000.00.

The purpose of this project is to conduct a three-phase research plan resulting in a recommendation for improvements to Raynor's resistance spot welding process.

DoAll Sawing Products for "DoAll Mechanical Testing Analysis." Matthew Gonser.
Award: $975.00.

The purpose of this project is to determine the root cause of blade failures occurring at DoAll Sawing Products.

NORTHERN PUBLIC RADIO

Award: $7,360.00. (Cumulative $35,633.00).
Funds are being used to provide information services to the visually impaired.

**PHYSICS**

Fermi National Accelerator Laboratory for "Development of the MU2E Preliminary Design."  
David R. Hedin/Nicholas Pohlman.  
Award: $11,633.00. (Cumulative $254,472.00).  

The purpose of this project is to support NIU's role in developing the Muon Beamstop, SiPM Characterization, and design of the Upstream Extinction Monitor.

Award: $130,000.00. (Cumulative $260,000.00).  

This project deals with the theoretical interpretation of time-dependent X-ray experiments of nonequilibrium dynamics. The research involves a postdoctoral researcher who will address these problems with high-performance computation.

Argonne National Laboratory for "Atomic-scale surface structure and dynamics during growth."  
Carol Thompson.  
Award: $29,697.00.  

The purpose of this project is to conduct experiments that incorporate in-situ x-ray scattering studies to study the growth and processing of materials during MOCVD at the Advanced Photon Source.

Award: $43,000.00. (Cumulative $133,080.00).  

Funds are being used to support post-doc participation in research efforts to enhance the understanding of resonant X-ray scattering techniques, both inelastic and elastic.

Award: $50,000.00.  

The purpose of this project is to study the relations between observable quantities measured at colliders and the underlying parameters of the Standard Model, by performing relevant calculations in a more accurate and detailed approximation than ever before.

Award: $39,826.00. (Cumulative $79,097.00).

The purpose of this project is to study the effects of local lattice distortions and short-range correlations on the unusual physical properties of novel materials, such as iron based superconductors and relaxor ferroelectrics.

Award: $67,187.00. (Cumulative $284,621.00).

Funds will be used for NIU's participation in the ATLAS Project through the simulation of a particle detector response.

Award: $286,999.00. (Cumulative $873,998.00).

This project will support participation in the D0 experiment, participation in the ATLAS experiment, and investigation of new detector technologies.

Award: $5,000.00. (Cumulative $595,910.00).
April 15, 2010 - April 14, 2014. (Organized Research) Basic Research.

Funds are being used to explore the possibility of using a compact particle acceleration technique based on a dielectric wall accelerator to produce a table-top accelerator-based light source which could be used (among other applications) to detect fissile materials.

Department of Energy for "Nonlinear Dynamics & Phase Space Manipulations of High-Brightness Beams." Bela Erdelyi/Philippe R. Piot.
Award: $100,000.00.

The project consists of two research thrusts: (1) production, phase-space manipulations, and applications of high-brightness electron beams and (2) computational beam and accelerator physics at the intensity frontier.

POLITICAL SCIENCE

Award: $20,000.00.

This project funds honoraria associated with the completion of the PI's edited book, Liberty and Equality: The American Conversation

PRECOLLEGIATE PROGRAMS
Department of Education for "Upward Bound Program." Felicia R. Bohanon.  
Award: $479,408.00. (Cumulative $1,434,576.00).  
Funds will be used to identify, select and serve 117 low-income, potential first generation college students who lack the adequate preparation to successfully pursue a postsecondary education and need academic support.

PSYCHOLOGY

Award: $16,708.00. (Cumulative $62,654.00).  
August 1, 2014 - June 30, 2015. (Instructional Programs) Instructional Programs.  
Funds will be used to support a Psychology graduate student externship placement at Susan Myket & Associates.

DeKalb County Court Services for "Psychology Externship at DeKalb County Court Services." Greg Waas/Alan Rosenbaum.  
Award: $21,408.00. (Cumulative $64,224.00).  
Funds will be used to support a psychology graduate externship at DeKalb County Court Services

Sheltered Village, Inc. for "Psychology Graduate Externship at Sheltered Village." Greg Waas/Holly K. Orcutt.  
Award: $20,668.00. (Cumulative $62,004.00).  
Funds will be used to support a psychology graduate extern and clinical supervisor at Sheltered Village.

Award: $102,273.00. (Cumulative $146,950.00).  
The goal of the project is to select/develop film segments to serve as visual narratives, and conduct studies to assess how individuals process these film segments, with an overall intent to improve narrative design to better stimulate interest and learning.

Award: $80,000.00. (Cumulative $240,527.00).  
Funds will be used to use both qualitative and quantitative methods to investigate mentor behaviors, from both mentors' and mentees' perspectives, and to link behaviors to leadership competencies important to both military and civilian populations.

National Science Foundation for "Do Implementation Intentions Facilitate Job Search Behaviors for the Unemployed?." Bradley G. Bond/Christoper J. Budnick/Alecia Santuzzi/Amanda M. Durik.
Award: $22,000.00. (Cumulative $66,000.00).

The goal of this project is to examine the utility of implementation intentions in reducing job search distractions and increasing job search time among unemployed job seekers.

Award: $12,314.00. (Cumulative $53,650.00).

Funds will be used to support a psychology graduate extern and faculty clinical supervisor.

Award: $30,444.00. (Cumulative $91,332.00).

The purpose of this project is to support a psychology graduate student externship with Joliet School District.

REGIONAL DEVELOPMENT INSTITUTE

McHenry County for "Sales and Service Agreement." Lisa Kaye Bergeron.
Award: $3,000.00.
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

City of Joliet for "Sales and Service Agreement." Lisa Kaye Bergeron.
Award: $15,000.00.
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

Award: $195,240.00.
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

South Suburban Mayors and Managers Association for "Sales and Service Agreement." Lisa Kaye Bergeron.
Award: $135,130.00.
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

Cook County for "Sales and Service Agreement." Lisa Kaye Bergeron.
Award: $95,560.00.
July 1, 2013 - June 30, 2014. (Other Sponsored Activities) Other.

RESEARCH, EVALUATION AND POLICY STUDIES

Southern Illinois University at Edwardsville for "SIUE Data Collection Project." Brent E. Wholeben/Ximena D. Burgin.
Award: $13,916.00.

The major goal of the project is to assist in data collection through interviews and focus groups at seven sites.

STATISTICS

National Science Foundation for "Application of Statistics in Assessing Nanoreliability."
Nader B. Ebrahimi.
Award: $44,989.00. (Cumulative $130,000.00).

Funds will be used to investigate methods to assess reliability for specific nanosystem/network topologies.

Casualty Actuarial Society (CAS) for "Factor copula approaches for assessing spatially dependent high-dimensional risks." Lei Hua.
Award: $18,000.00.

The purpose of this project is to develop factor copula models that capture the spatial dependence structure where physical distance plays an important role, and to perform case studies using real loss data from natural disasters or insurance to demonstrate how the proposed model can be used for rate making and risk management.

STUDENT FINANCIAL AID

Department of Education for “PELL Grant 2014.” Rebecca Babel.
Award: $30,290,012.00.

Department of Education for “Federal Work Study.” Rebecca Babel.
Award: $882,014.00.

Department of Education for “Student Educational Opportunity Grant.” Rebecca Babel.
Award: $836,864.00.

STUDENT SERVICES

Illinois Emergency Management Agency for "Campus Security Enhancement Project." Kelly
Award: $211,316.00.

The goal of the project is to install enhanced security features on selected academic buildings.

STUDENT SUPPORT SERVICE

Department of Education for "Student Support Services for Northern Illinois University." Jerry Wright.
Award: $349,671.00. (Cumulative $1,741,254.00).

The purpose of this project is to provide low-income, first generation, and/or physically or learning disabled students with comprehensive academic and career counseling services and cultural enrichment activities designed to enhance their persistence and graduation from the university.

UNIVERSITY LIBRARIES

Award: $77,511.00.

This project aims to digitize the endangered ancient manuscripts produced by the Cham, an ethnic minority living in Vietnam.