

Research News

Vol. 7 Number 4



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Introduction

Vice Chancellor for Research, Alexander Gates

In his introductory address to the Rutgers-Newark community last year, Interim Chancellor Yeagle challenged the campus to double the amount of external funding over the subsequent five year period. I am happy to report that in the first year, the campus more than met that challenge. In the 2012-2013 fiscal year, Rutgers-Newark set a new campus record for external funding by bringing in more than \$33 million.

This represents an increase of 22% over the 2011-2012 fiscal year amount or 2% more than the 1/5 challenged increase. Even more impressive is that this increase came in spite of the decline and end of the increased funding through the federal ARRA program as well as the hardships imposed by the federal sequestration which has severely limited federal funding opportunities. The vast majority of universities in the United States saw a decrease in external funding as a result. This makes our feat even more impressive.

Our increase was fueled by several initiatives including an impressive effort by Interim Chancellor and Dean of SCJ, Todd Clear, who brought in \$4 million through his NJ-STEP program. Brenda Hopper also had a record year for the Small Business Development Center, also bringing in more than \$4 million. There were several other impressive success stories with new grants and initiatives that helped to fuel this accomplishment. I congratulate all of you who helped to bring about this success. For those who are making the effort but have yet to be successful, have faith and perseverance; your time will come.

Enough reading, everyone get back to writing your proposals; we have to reach \$39 million this year.



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FY 13 CUMULATIVE AWARDS MORE THAN \$499,000



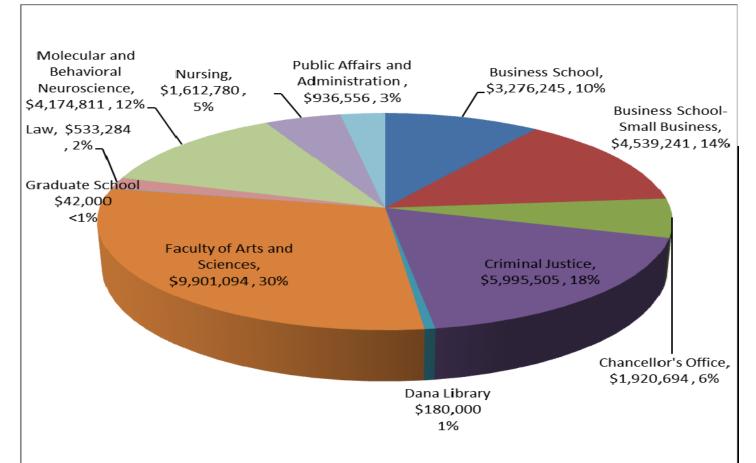
SINGLE AWARDS MORE THAN \$299,000

Brenda	Deborah Smarth	RBS-NJSBDC	US Small Business Administration	NJ Small Business Development Center	\$2,717,941
Todd		School of Criminal Justice	The Sunshine Lady Foundation	NJ STEP Program	\$2,000,000
Todd		School of Criminal Justice	Vera Institute of Justice	NJ STEP - Pathways Project	\$2,000,000
James	Alex Plinio	RBS-Organization Management	Prudential	General operating support for Institute for Ethical Leadership RBS	\$1,600,000
Brenda	Deborah Smarth	RBS-NJSBDC	US Small Business Administration	Phase I: Hurricane Sandy Small Business Revitalization Opportunity	\$1,052,600
Alexander		FASN-Earth and Environmental	NSF	LSAMP - The Garden State Alliance for Minority Participation	\$1,000,000
		Sciences			
Barry		FASN-Psychology	NIH/NIGMS	Minority Biomedical Research Support Program at Rutgers-Newark	\$616,561
Barry		FASN-Psychology	NIH/NIGMS	Minority Biomedical Research Support Program at Rutgers-Newark	\$592,108
Mark		CMBN	NSF	Long Term Monitoring and Analysis of Sleep -Cognition Relationship	\$552,307
Suzanne		College of Nursing	US Dept. of Health and Human Services - HRSA	ICPM for Improved Patient and Community Outcomes in an Urban Setting	\$499,990
Jeffrey		College of Nursing	US Dept. of Health and Human Services - HRSA	ICPM for Improved Patient and Community Outcomes in an Urban Setting	\$499,872
Leslie	Joel Caplan,Eric Piza	School of Criminal Justice	US Department of Justice	Risk Terrain Modeling Experiment	\$499,633
Diane		OUCP	US Dept.of Education	Promise Neighborhood Grant 2012	\$498,772
Wilma		FASN-Biological Sciences	NIH/NINDS	Modulating ProNGF-Induced Cell Death in Epilepsy: Strategies for Neuroprotection	\$495,374
Linda		School of Criminal Justice	County of Morris	Urban Area Security Integration (UASI)	\$424,724
Denis		CMBN	NIH/NIMH	Functional organization of the bed nucleus of the stria terminalis and its role in the generalization of learned fear	\$387,500
Denis		CMBN	NIH/NIMH	Functional organization of the bed nucleus of the stria terminalis	\$372,000
	Todd Todd James Brenda Alexander Barry Barry Mark Suzanne Jeffrey Leslie Diane Wilma Linda Denis	Brenda Smarth Todd Todd James Alex Plinio Brenda Deborah Smarth Alexander Barry Barry Mark Suzanne Jeffrey Leslie Joel Caplan, Eric Piza Diane Wilma Linda Denis	Smarth RBS-NJSBDC Todd School of Criminal Justice Todd School of Criminal Justice James Alex Plinio RBS-Organization Management Brenda Smarth RBS-NJSBDC FASN-Earth and Environmental Sciences Barry FASN-Psychology Barry FASN-Psychology Mark CMBN Suzanne College of Nursing Leslie Caplan,Eric Piza School of Criminal Justice Diane OUCP Wilma FASN-Biological Sciences Linda CMBN CMBN	Brenda Smarth RBS-NJSBDC Business Administration Todd School of Criminal Justice Todd School of Criminal Justice Interpretation RBS-Organization Prudential US Small Business Administration FASN-Earth and Environmental NSF Sciences Barry FASN-Psychology NIH/NIGMS Barry FASN-Psychology NIH/NIGMS Mark CMBN NSF College of Nursing Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA US Dept. of Health and Human Services - HRSA Diane OUCP US Department of Justice Diane School of Criminal Justice Denis CMBN NIH/NINDS	Bernda Smarth RBS-NJSBDC Business Administration The Sunshine Lady Foundation NJ STEP Program Todd School of Criminal Justice Vera Institute of Justice NJ STEP - Pathways Project Justice RBS-Organization Management Prudential End Foundation NJ STEP - Pathways Project Justice Prudential Sciences Prudential End Foundation Res-NJSBDC Smarth RBS-NJSBDC Smarth FASN-Earth and Environmental Sciences PASN-Psychology NIH/NIGMS Program at Rutgers-Newark NIH/NIGMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIMMS NIH/NIM

SINGLE AWARDS MORE THAN \$299,000

Krekelberg	Bart		CMBN	NIH/NEI	Eye Movements and Visual Perception	\$360,000
Gilchrist	Alan		FASN-Psychology	NSF	Current problems in lightness theory	\$358,481
Griffiths	Elizabeth	Kay Levine, Joshua Hinkle, Volkan Topalli	School of Criminal Justice	NSF	Race, Place & Discretion in the Handling of Drug-Free Zone Charges	\$357,669
Sheridan	John	Frank Jordan, Darren Hansen, Frieder Jaekle, Elena Galoppini	FASN-Chemistry	NSF	MRI: ACQUISITION OF A 500 MHZ NMR SPECTROMETER	\$354,385
Altan-Bonnet	Nihal		FASN-Biological Sciences	NIH/NIAID	Assembly dynamics and role of PI4P enriched replication organelles for enteroviral RNA replication in vivo	\$345,734
Pare	Denis		CMBN	NIH/NIMH	Associative properties of the perirhinal network	\$345,263
Pare	Denis		CMBN	NIH/NIMH	Role of Intercalated amygdala neurons in the extinction of conditioned fear	\$344,149
Maurel	Patrice		FASN-Biological Sciences	NIH/ NINDS	Nectin-like cell adhesion molecules and the mechanism of myelination	\$339,063
Jordan	Frank		FASN-Chemistry	NIH/ NIGMS	Structure and Mechanism of 2-Oxoacid Decarboxylases and Dehydrogenases	\$331,452
Holzapfel	Claus	Kirk Moloney	FASN-Biological Sciences	DOD/ SERPD	Understanding and Combating the Fire- enhancing Impact of Non-native Annuals in Deserts	\$320,594
Koos	Tibor	James Tepper	CMBN	NIH/ NINDS	Optogenetic Analysis of Neostriatal Circuits Engaged by Cholinergic Interneurons	\$305,156
Delgado	Mauricio		FASN-Psychology	NIH/NIDA	Neural mechanisms of avoidance learning and active coping via emotion regulation	\$300,442
Zaborszky	Laszlo		CMBN	NIH/ NINDS	Afferent Regulation of Cholinergic Forebrain Neurons	\$299,054

BY DEPARTMENT



CHANCELLOR'S OFFICE

Office of University-Community Partnerships \$818,634 Paul Robeson Gallery - \$24,701 LSAMP - \$1,000,000 Child Care Access - \$77,359

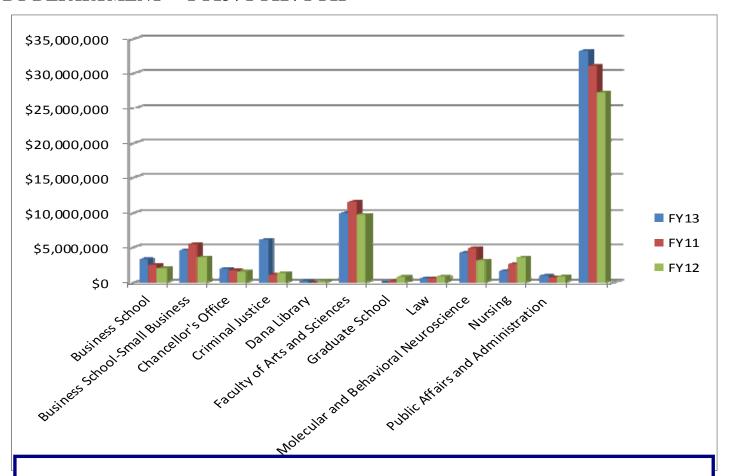
FACULTY OF ARTS AND SCIENCES

Academic Foundations - \$1,523,119 **Biological Sciences** - \$2,646,979 Chemistry - \$1,050,329 Classical & Modern Languages & Literature - \$ 1,500 Earth and Environmental Sciences - \$ 747,475 Economics - \$ 4,500 History (IECME) - \$ 36,400 Math and Computer Sciences - \$ 227,771 Psychology - \$3,388,522 Urban Education - \$ 274,500

RUTGERS BUSINESS SCHOOL

Dean's Office -\$ 289,457
Finance & Economics -\$ 75,523
Institute for Ethical Leadership -\$1,687,500
Management and Global Business -\$ 209,793
Mgt. Science & Information Systems
RU Technical Assistance Project -\$ 100,000

BY DEPARTMENT - FY13 / FY12 / FY11



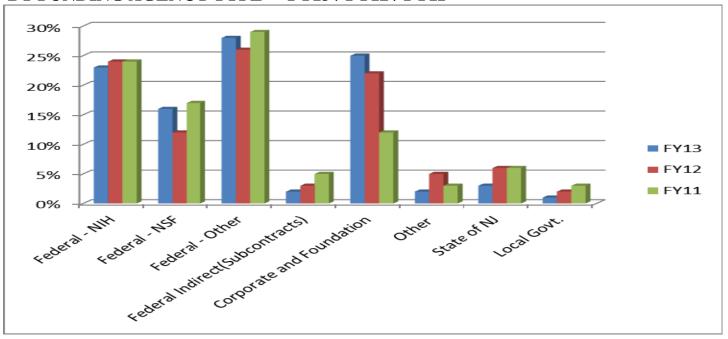
The success in FY13 is attributed to several large funding amounts of one million dollars and above.

Notable among those amounts were the two grants of two million dollars each received for the NJSTEP (New Jersey Scholarship and Transformative Education in Prisons Consortium) coordinated in the School of Criminal Justice under the leadership of Clear Todd. The consortium is charged with the stated mission to enhance and coordinate higher educational services to all students under custody of the State of New Jersey while incarcerated and upon release. The program is currently supported with funding from The Sunshine Lady Foundation, Inc. and The Vera Institute of Justice under its Vera's Pathways from Prison to Postsecondary Education demonstration project which is supported by several major Foundations including Gates, Ford, Open Society and Sunshine Lady. The Consortium works in partnership with, and partial funding from the New Jersey Department of Corrections and State Parole Board. One expected outcome is the development of a national model. The current Consortium members engaged in the project with Rutgers are Drew University, Essex County College, Mercer County Community College, Princeton University, Raritan Valley Community College and The College of New Jersey.

"NJSTEP is dedicated to assisting people in the criminal justice system with educational achievement."

"...recognizing that it is of maximum benefit ... to create a more connected and communicative system."

BY FUNDING AGENCY TYPE - FY13 / FY12 / FY11



BY FUNDING AGENCY DOLLARS - FY11 - FY13

	FY13	FY12	FY11
Federal - NIH	\$7,548,843	\$6,556,042	\$7,566,747
Federal - NSF	\$5,147,456	\$3,348,047	\$5,303,411
Federal - Other	\$9,250,785	\$7,195,823	\$8,998,700
Federal Indirect (Subcontracts)	\$713,947	\$939,016	\$1,662,385
Corporate and Foundation	\$8,408,955	\$5,883,337	\$3,704,639
Other	\$635,226	\$1,304,696	\$819,706
State of NJ	\$978,874	\$1,505,734	\$1,900,665
Local Govt.	\$428,124	\$490,880	\$1,039,747
TOTAL	\$33,112,210	\$27,223,575	\$30,996,000

THE STORIES AND THE PEOPLE BEHIND THE NUMBERS

The total award dollars for FY13 was \$33,112,210, based on the internal records of the Research Office. The amount reflects a 22% increase from the FY12 total of \$27,223,575.

The Small Business Development Centers in New Jersey are supported by the US Small Business Administration which is the largest single annual source of federal dollars to the campus. The Centers are managed by Brenda Hopper and her team.

This year the Center also received funding of \$1,052,600 in support of services to small businesses affected by Tropical Storm Sandy.

Federal funding accounted for 69% of total awards while corporate and foundation grants accounted for 25%.

The Psychology Department recorded the largest total award dollars within FASN at \$3,388,522, followed by Biological Sciences with \$2,646,979.

School of Criminal Justice had its most successful funding period to date with a total of \$5,995,505.

CMBN funding increased by \$1,071,840 from FY12.

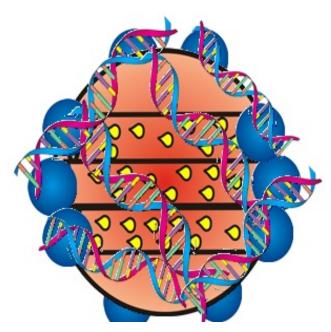
Rutgers Business School (excluding SBDC) increased its funding by \$1,284,400. This amount was bolstered by the \$1,600,000 of additional Prudential support for the Institute for Ethical Leadership.

Several Young Investigators continue to triumph with external funding for their research projects, including Nan Gao, William Graves and Vanessa LoBue.

The National Science Foundation funded Garden State LSAMP project just completed year four of its five years of funding but the program has already achieved its goal of doubling the number of graduates from underrepresented minority groups in STEM disciplines. The project is led by Alexander Gates, Vice Chancellor for Research.

Several community based projects were funded in FY13, including the federal and foundation supported Promise Neighborhood project led by Diane Hill in the Chancellor's Office. The project targets high schools in the Newark Fairmount area and uses a "collaborative leadership model ... to establish a shared vision, and goals: develop strategy; and align and focus services and solutions."

CONGRATULATIONS NEWARK CAMPUS FY13



The diagram is a product of the research conducted by Huixin He and her Group in the Newark Chemistry Department. It shows how mesoporous silicia nanoparticles (MSNs) are used to co-deliver doxorubicin (Dox) (as a model apoptosis-inducing anticancer drug) and a sIRNA (as a suppressor of cellular antiapoptotic defense) simultaneously into multidrug resistant cancer cells for efficient cancer therapy.



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