

Arkansas Research Matching Fund 2008 Report

Arkansas Science & Technology Authority
March 31, 2008

This is the fifth biennial report for the Arkansas Research Matching Fund (ARMF) and is submitted pursuant to Act 1545 of 1999.

ARMF is intended to provide state matching funds for specific federal awards to Arkansas colleges and universities. The legislation designates the Arkansas Science & Technology Authority as administrator of the fund and requires that the Authority submit a report on investments from ARMF to the Governor and the Arkansas General Assembly by April 1 of even numbered years.

The goal of the Arkansas Research Matching Fund is to improve the state's federal research and development ranking by helping to build university-based research infrastructure and competitiveness for federal research funds.

This report covers state fiscal years 2006, 2007, and 2008 through March 31, 2008.

Part of fiscal year **2006** was covered in the 2006 Report, which identified two projects totaling \$292,653 being approved. In the final quarter of fiscal year 2006, an additional \$263,197 allocated to research was used to match two additional projects. The National Science Foundation and the National Aeronautics and Space Administration awarded the federal funds. One NASA award (Project ID 06-ARMF-02; highlighted in Table 1) spanned fiscal years 2006 and 2007 and involved two approved requests for state matching funds.

In fiscal year **2007**, the Authority invested \$292,653 in three projects and an additional \$263,197 allocated to research was used to match four additional projects. The National Science Foundation, the National Aeronautics and Space Administration, and the Department of Defense awarded the federal funds. One job-creating corporate research project received state matching funds and is also reported.

In fiscal year **2008** to date, the Authority has invested \$292,653 in two projects; the National Aeronautics and Space Administration made these awards. An additional \$1,500,000 released by the Governor from the General Improvement Fund matched an award from the National Science Foundation.

Table 1 summarizes these investments.

Table 1: ARMF Funding

Project ID	Federal Agency	Institution	Fiscal Year	Project Title	University Request	Date Awarded	Amount Awarded	Resolution	Federal Award
05-ARMF-01	NSF EPSCoR RII	UAF	2006	Arkansas EPSCoR Research Infrastructure	\$184,829	05/20/05	\$184,829	05-09	\$369,658
06-ARMF-01	NASA Training Grants	UALR	2006	NASA Space Grant	\$122,610	10/14/05	\$107,842	06-08	\$335,000
06-ARMF-02 (Payment 1)	NASA Training Grants	UALR	2006	NASA Space Grant	\$147,498	05/19/06	\$7,893	06-31	\$403,000
06-ARMF-03	NSF EPSCoR RII	UAF	2006	Arkansas EPSCoR Research Infrastructure	\$255,304	05/19/06	\$255,304	06-32	\$510,608
06-ARMF-02 (Payment 2)			2007			05/19/06	\$139,605	06-31	
06-ARMF-02 (Payment 3)	NASA Training Grants	UALR	2007	NASA Space Grant	\$95,000	05/18/07	\$95,000	07-32	
07-ARMF-01	NSF research training	ASU	2007	RISE: - Research Internships in Science of the Environment	\$13,100	05/18/07	\$13,100	07-30	\$84,089
07-ARMF-02	Dept of Defense	UAF	2007	Multi-color wavelength infrared detectors based on III semiconductor nanostructures	\$126,040	05/18/07	\$126,040	07-31	\$339,797
07-ARMF-03	Dept of Defense	UAF	2007	Low-power, ultra fast optical switches based on coherence optical effects in arrayed semiconductor nanostructures	\$153,912	05/18/07	\$153,912	07-31	\$350,000
07-ARMF-04	Dept of Defense	UAF	2007	MRSEC: Center for Semiconductor Physics and Nanostructures	\$88,048	05/18/07	\$88,048	07-31	\$3,900,000
07-ARMF-05	NASA Training Grants	UALR	2007	An integrated approach for hydrogen production and storage in complex hydrides	\$123,441	05/18/07	\$123,441	07-32	\$890,999

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07-A-01	[Acxiom Corporation]	UALR	2007	A semiotic approach to layout interference and data transformation	\$65,000	05/18/07	\$65,000	07-29	\$130,000
08-ARMF-01	NASA Training Grants	UALR	2008	Arkansas Space Grant Consortium	\$410,000	11/16/07	\$175,000	08-06	\$410,000
08-ARMF-02	NASA Research Infrastructure	UALR	2008	NASA EPSCoR Research Infrastructure Development	\$125,000	11/16/07	\$117,653	08-06	\$125,000
Multiple Awards	NSF EPSCoR RII	UAF, UALR, ASU	2008	Arkansas Asset Initiative	\$1,500,000	Multiple Dates	\$1,500,000	Multiple Resolutions	\$3,000,000

The federal awards indicate the quality of research taking place in Arkansas and illustrate that Arkansas scientists and engineers are competitive at the national level for large awards. This is important as the transformation to a knowledge-based economy continues. In this 21st Century economy, talent and innovations – including those from research – drive economic growth.

The continuing challenge is to find the required resources to match federal awards. This is a particular problem with some federal research programs that do not specifically require a match to be included in the proposal, but base funding decisions on the amount of matching funds pledged from either campus or state sources. The inability of campuses, especially smaller campuses, to pledge adequate matching funds reduces competitiveness and places a financial burden on those campuses that are able to compete.

The Authority is pleased to support the projects reported in Table 1. The needs, however, are greater than the research matching funds available and this limits the state’s competitiveness.

The Authority anticipates that the need for, and importance of, state matching support will grow. Looking ahead, the demand for state matching funds in FY2009 is expected to exceed the base-level appropriation, which, because of its limited scale, is entirely reactive.

ARMF Investment History

The Arkansas Research Matching Fund (ARMF) was established in 1999 and first funded in fiscal year 2000. In the nine-year history, \$7,776,250 of state matching funds has been invested (as shown in Table 2) to leverage \$22,760,655 in federal funds. The immediate return on investment is \$2.93 for every state dollar invested.

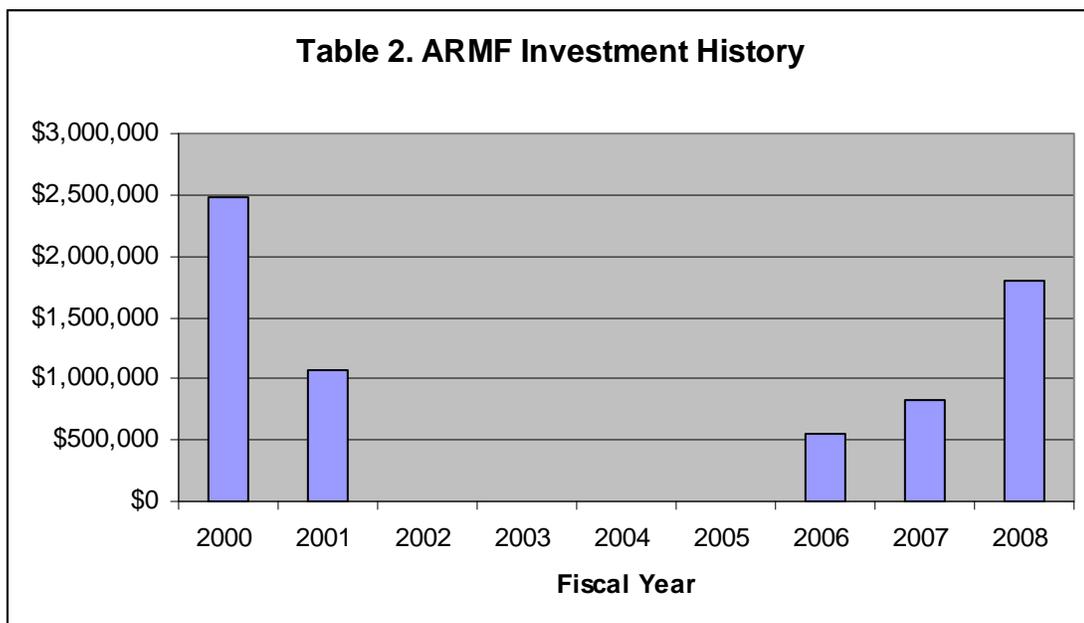


Table 2 shows how research matching dropped to zero in the wake of September 11, 2001. Accelerate Arkansas, a statewide volunteer group, which developed five core strategies for knowledge-based economic growth, including a strategy for job-creating research, proposed restoring these funds. Accelerate Arkansas was able to secure an annual General Revenue appropriation of \$292,653 for research matching in the 2005 session. The Authority's Board of Directors was grateful for the interest and support of research by Accelerate Arkansas. These annual funds have been valuable in opportunistically generating other state research funds, from other available appropriations, which have also been used for research matching.