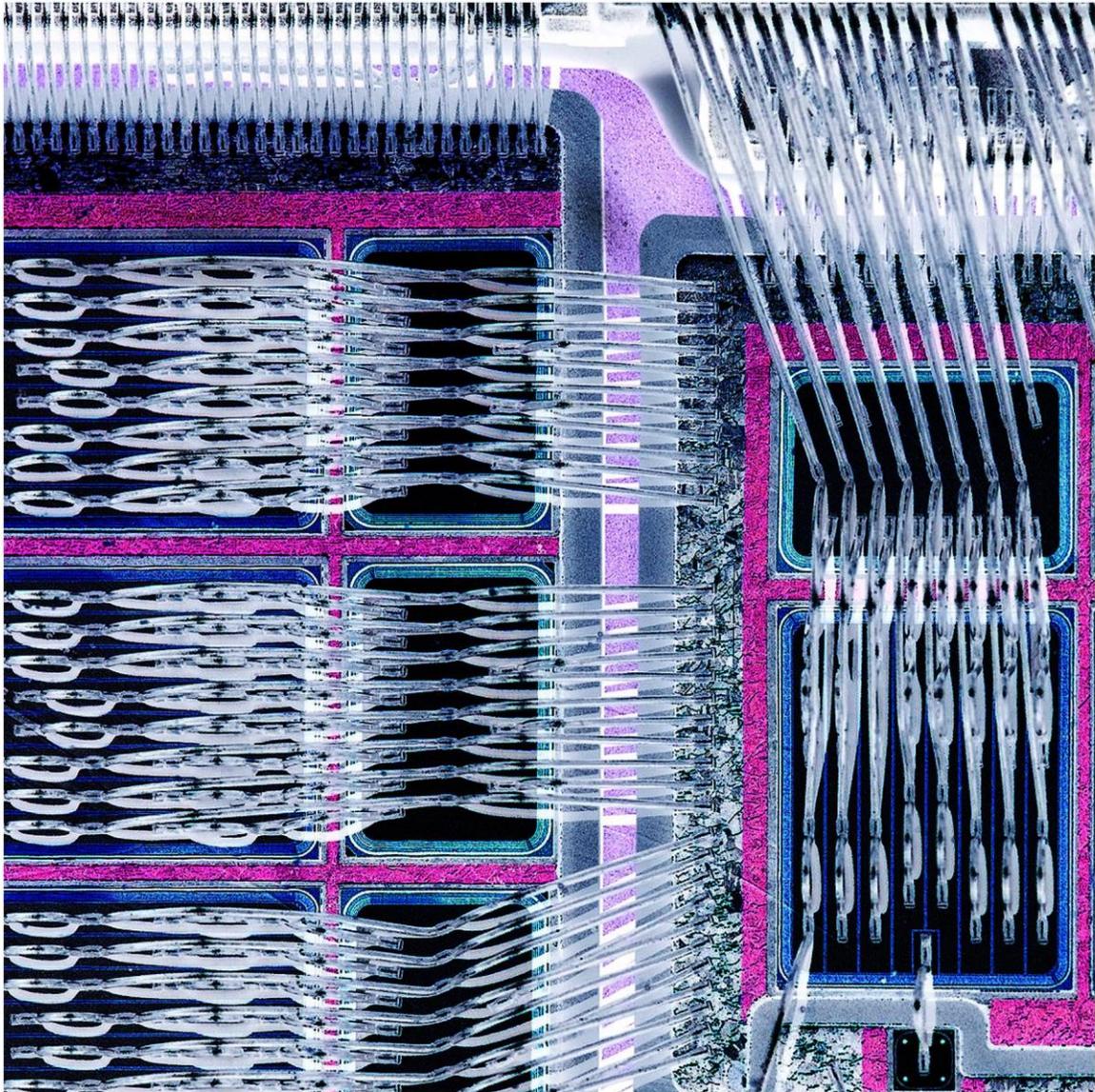


# ASTA

Arkansas Science & Technology Authority



ANNUAL REPORT 2014

## BOARD OF DIRECTORS

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Board Chairman  
Professor  
College of Pharmacy  
UAMS  
Little Rock

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Board Vice Chairman  
President  
Molex Global Integrated  
Products Division  
Maumelle

**Gary Campbell**

Board Secretary  
Retired- IBM Corporation  
Former City Director/Vice Mayor  
Fort Smith

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University of Central Arkansas  
Conway

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Arkansas Dept. of Higher Education  
Little Rock

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CEO  
Caldwell Media, LLC

**John F. Miller**

Sr. Manager, Training & Education Liaison  
Dassault Falcon Jet  
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Research & Economic Development  
University of Arkansas  
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Interim Assoc. Vice Chancellor  
Research & Tech Transfer  
Arkansas State University  
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Manager, Technical Services  
URS Energy & Construction, Inc.  
Judsonia

**Heartsill Ragon, III**

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Gill, Elrod, Ragon, Owen & Sherman, PA  
Little Rock

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Conestoga-Rovers & Associates (CRA)  
Little Rock

**Dr. Seshadin Mohan**

Chair, Systems Engineering Department  
University of Arkansas  
Little Rock

**Daren Sweat**

North Little Rock

ASTA's mission is to advance  
the talent & innovation  
necessary for Arkansas  
to prosper.





## STAFF

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President

**Dr. Blake Perry**

Executive Vice President

**Dr. Steve Stanley**

Vice President Commercialization

**Dr. Gail McClure**

Vice President Sponsored Projects

**Dan Curtis**

Vice President Industry

**James Downs**

Vice President Informatics

**Jennifer Shelton**

Vice President STEM Education

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EPSCoR Assistant Director

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Fiscal Officer

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Executive Assistant to the President

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Education Outreach Director

**Julianne Gonzalez**

Project Analyst

**Andy Capel**

Marketing Manager AMS

**Dan Mickelson**

Director Client Services AMS

**Mickey Yeager**

Director Client Services AMS

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Director Client Services AMS

**Keith Gammill**

Director Client Services AMS

**Phil Plyler**

Director Client Services AMS

**Nancy Butler**

Fiscal Support Specialist

**Shirley Vanderslice**

Executive Secretary

With a vision to see Arkansas prepared to compete & prosper in the global economy, ASTA promotes scientific research; technology development; business innovation; and math, science, and engineering education.

Arkansas Science & Technology Authority  
900 West Capitol, Suite 320  
Little Rock, AR 72201  
501.683.4400

**BENTON**

6 projects  
\$218,750

**BOONE**

2 projects  
\$7,500

**COLUMBIA**

5 projects  
\$29,000

**CRAIGHEAD**

4 projects  
\$1,055,257

**CRAWFORD**

4 projects  
\$15,000

**FAULKNER**

5 projects  
\$1,341,132

**GARLAND**

1 project  
\$19,794

**HEMPSTEAD**

1 project  
\$3,750

**HOWARD**

1 project  
\$3,750

**IZARD**

1 project  
\$3,750

**JEFFERSON**

4 projects  
\$345,872

**LOGAN**

1 project  
\$3,750

**OUACHITA**

1 project  
\$6,400

**PHILLIPS**

1 project  
\$2,400

**POLK**

1 project  
\$3,750

**PULASKI**

25 projects  
\$3,007,852

**SALINE**

2 projects  
\$7,500

**SEBASTIAN**

4 projects  
\$67,275

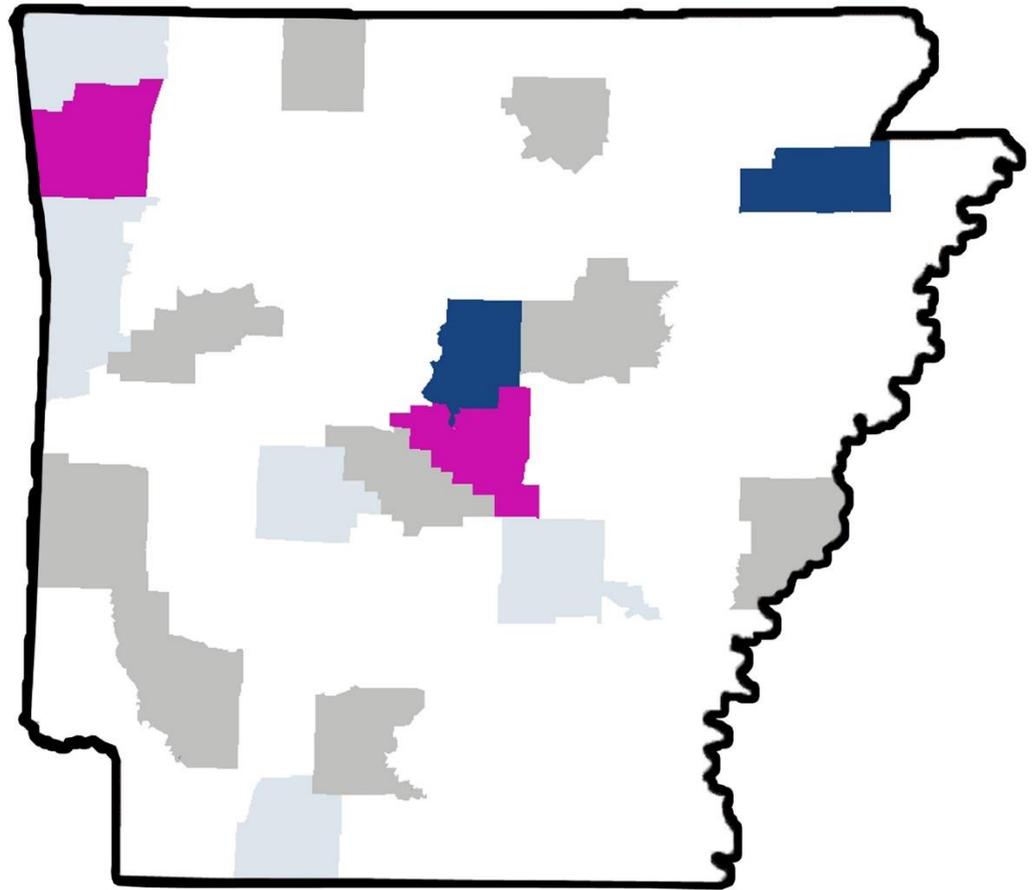
**WASHINGTON**

42 projects  
\$5,748,458

**WHITE**

1 project  
\$3,750

# INVESTMENTS BY COUNTY



114  
projects

20  
counties

\$12,052,690

investment total

60%

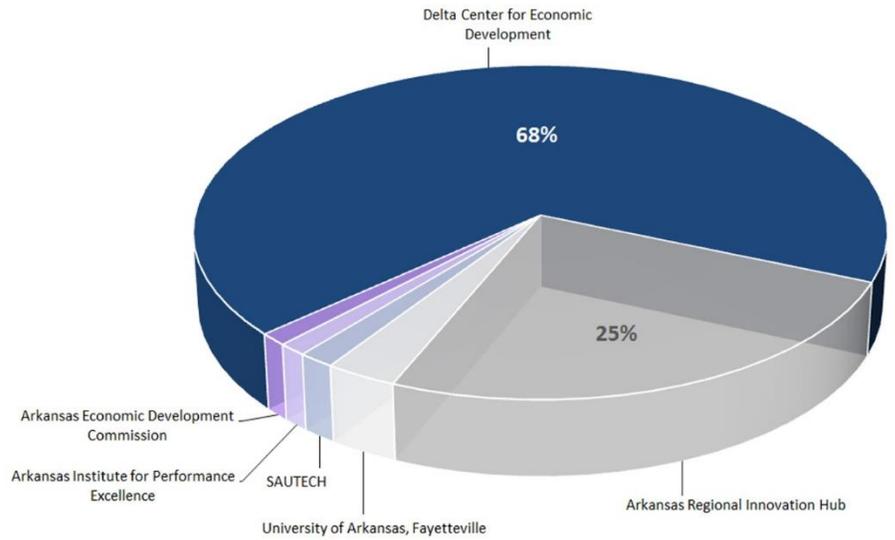
of state's population represented



**\$414,374**



in board-approved partnerships



Client Reported Impact Data

**\$6,268,000**

new sales

**\$65,510,000**

retained sales

**83**

new jobs

**\$18,088,850**

new investments

**\$1,788,630**

cost savings

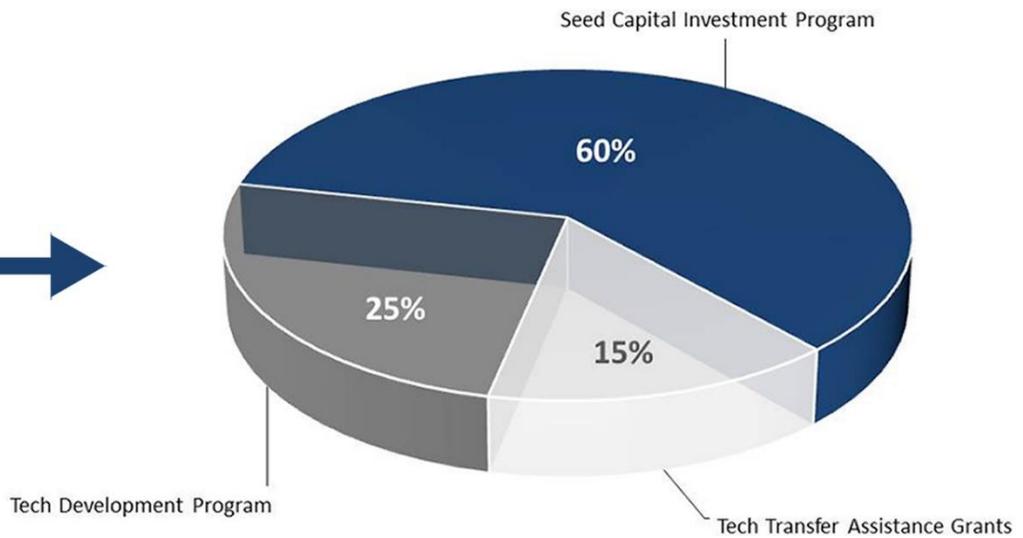
# ARKANSAS MANUFACTURING SOLUTIONS

Provides executive leadership and management consultative services to Arkansas companies in the areas of innovation, growth services, operational excellence, and sustainability.



**\$1,301,750**

Board-approved investments for seed capital, technology development, & technology transfer assistance grants.



# COMMERCIALIZATION

ASTA fosters the growth of clients through small grants, investment funds, and tax credits which help market technology-based products and services.

Regarding seed capital and tech development awards:

**13**

companies supported with

**79**

projected new jobs averaging

**\$50**

an hour

Regarding technology transfer assistance grants:

**\$22,500**

of state funds resulted in

**\$781,002**

in federally awarded Small Business Innovation Research grants from the National Institutes of Health & the National Science Foundation

Other board-approved investments:

**\$1,000,000**

statewide broadband activities



Connect Arkansas is dedicated to increasing high-speed internet subscription and sustaining internet adoption throughout Arkansas.

**\$3,551,771**

certified tax credits for start-ups

**\$1,000,000**

university scholars program



The Arkansas Research Alliance Scholars Program plays a pivotal role in bridging university research and economic development.



## GOAL 1 → 50%

of Arkansas high schools implement a STEM Works program in the next 10 years.

## GOAL 2 → 1,000

new, certified, secondary STEM teachers in the next 10 years.

4

nationally recognized STEM programs currently implemented in

62

systems or districts including:

7

EAST Core Pioneer schools

15

New Tech schools

37

Project Lead the Way schools

3

UTeach campuses

## STEM WORKS

Aims to transform education by recognizing that future educational and workforce demands will be driven by the needs of the 21st century economy: employees that are highly skilled in science, technology, engineering, and mathematics.

New Tech Network (NTN): transformation includes robust professional development, coaching, facilities renovation, and leadership training.

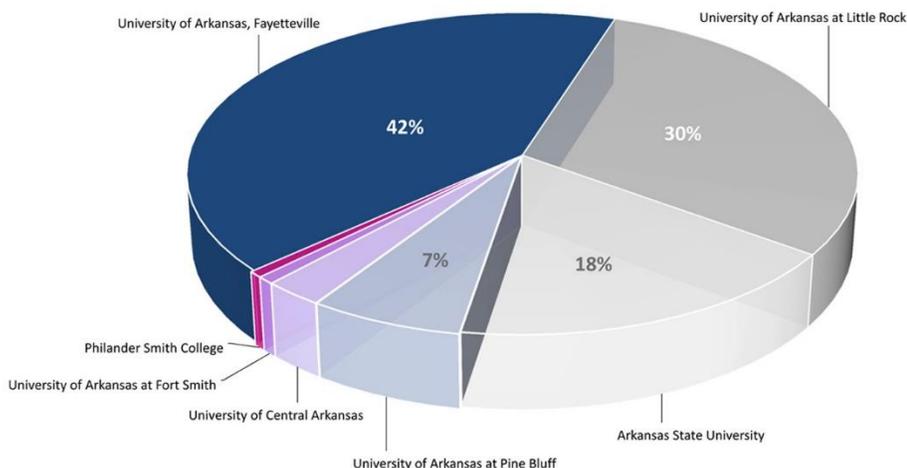
EAST Core Pioneer: problem-based instruction that integrates Common Core State Standards, Next Generation Science Standards, and established frameworks and learning outcomes.

Project Lead the Way: stand-alone elective courses that emphasize the problem-solving and critical-thinking skills taught in a traditional career and technical education courses while integrating national learning standards and STEM principles.

UTeach: recruitment of undergraduate students from rigorous STEM disciplines to help them master skills needed to become effective secondary STEM teachers.

# \$4,000,000

Board-approved investments of federal funds across three research themes.



## SPONSORED PROJECTS ASSET Initiative

The ASSET Initiative is a National Science Foundation-Arkansas partnership designed to strengthen research areas with potential for national significance and with major economic development potential in plant-based production, solar cell technology, and new power electronics.

### CURRENT ASSET RESEARCH CENTERS

- Plant Powered Production Center (P3)** → scalable biofactories for proteins, chemicals, & biomaterials critical to addressing global challenges in energy, health, climate, & food security.
- AR GREEN Solar Cells Research Center** → high efficiency, low cost thin-film solar cells.
- Vertically-Integrated Center for Transformative Energy Research (VICTER)** → development & utilization of the infrastructure for a “materials to the grid” effort in solar electric power.

Through year four of the five year project:

# \$20,000,000

in additional grant funding

# 12,875

K-12 students & teachers directly impacted with STEM activities

# 457

higher education impacts (undergraduates, graduate students, and post-docs)

# 411

publications

# 137

new collaborations outside the state

# 6

patents filed

# FY14 Operating Report

GENERAL REVENUE		BUDGET		ACTUAL		
		1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
<b>GENERAL OPERATIONS</b>						
<i>Regular Salaries</i>	665,045	148,976	169,903	145,559	180,092	644,530
<i>Extra Help</i>	12,000	0	0	352	4,838	5,190
<i>Maintenance &amp; Operations</i>	212,086	40,881	25,591	25,664	94,441	186,577
<i>Fringe Benefits</i>	218,703	49,541	54,255	49,051	56,924	209,771
<i>Conference Fees &amp; Training</i>	27,800	5,633	4,852	4,580	12,735	27,800
<i>Professional Fees</i>	16,800	3,695	1,750	3,655	1,688	10,788
<i>Technology Development</i>	156,975	90,000	18,750	37,500	10,725	156,975
<i>Research Matching</i>	1,292,653	0	0	377,564	915,089	1,292,653
<i>Seed Capital Investments</i>	292,653	0	150,000	0	142,653	292,653
<b>TOTAL</b>	<b>2,894,715</b>	<b>338,726</b>	<b>425,101</b>	<b>0</b>	<b>0</b>	<b>2,826,937</b>
<b>AMS SUPPORT</b>						
<b>TOTAL</b>	<b>257,182</b>	<b>7,248</b>	<b>35,289</b>	<b>196,096</b>	<b>18,549</b>	<b>257,182</b>

CASH		BUDGET		ACTUAL		
<b>SEED CAPITAL FUND</b>	1,900,000	0	0	0	0	0
<b>TOTAL</b>	<b>1,900,000</b>	<b>0</b>	<b>100,000</b>	<b>100,000</b>	<b>0</b>	<b>200,000</b>

<b>AMS CASH FUND</b>						
<i>Regular Salaries</i>	234,530	54,128	40,506	32,515	0	127,149
<i>Maintenance &amp; Operations</i>	429,665	20,901	20,294	9,502	959	51,656
<i>Fringe Benefits</i>	71,161	15,250	20,663	14,412	0	50,325
<i>Grants</i>	338,270	117,543	41,480	-62,377	-9,500	87,146
<i>Conference Fees &amp; Training</i>	67,360	5,770	2,674	1,869	-831	9,482
<i>Professional Fees</i>	75,000	4,900	0	0	0	4,900
<b>TOTAL</b>	<b>1,215,986</b>	<b>218,492</b>	<b>125,617</b>	<b>-4,079</b>	<b>-9,372</b>	<b>330,658</b>

FEDERAL GRANTS		BUDGET		ACTUAL		
<b>AMS- NIST MEP</b>						
<i>Regular Salaries</i>	380,414	58,327	63,428	52,254	98,823	272,832
<i>Maintenance &amp; Operations</i>	152,848	6,395	10,252	16,294	48,027	80,968
<i>Fringe Benefits</i>	152,848	25,851	19,973	21,017	39,482	106,323
<i>Conference Fees &amp; Training</i>	30,000	0	908	1,841	9,605	12,354
<i>Grants &amp; Aid</i>	225,000	0	0	0	145,061	145,061
<b>TOTAL</b>	<b>941,110</b>	<b>90,573</b>	<b>94,561</b>	<b>91,406</b>	<b>340,998</b>	<b>617,538</b>
<b>ASSET II- NSF EPSCoR</b>						
<i>Regular Salaries</i>	201,659	42,564	43,783	37,528	47,699	171,574
<i>Maintenance &amp; Operations</i>	168,658	40,927	58,363	24,173	21,075	144,538
<i>Fringe Benefits</i>	59,025	13,282	13,559	12,226	14,442	53,509
<i>Conference Fees &amp; Training</i>	27,000	5,071	9,072	4,315	1,774	20,232
<i>Professional Fees</i>	74,800	31,582	24,859	13,109	140	69,690
<i>Grants</i>	3,467,686	1,106,338	1,197,129	286,092	616,609	3,206,168
<b>TOTAL</b>	<b>3,998,828</b>	<b>1,239,764</b>	<b>1,346,765</b>	<b>377,443</b>	<b>701,739</b>	<b>3,665,711</b>

GENERAL IMPROVEMENT FUNDS		BUDGET		ACTUAL		
ASSET II	506,412	303,494	194,465	0	0	497,959
AR Research Alliance	1,000,000	1,000,000	0	0	0	1,000,000
Seed Capital Investment	200,000	100,000	0	100,000	0	200,000
Broadband Mapping	1,000,000	1,000,000	0	0	0	1,000,000
AR Acceleration Fund	1,500,000	0	0	0	372,347	372,347
<b>TOTAL</b>	<b>4,206,412</b>	<b>2,403,494</b>	<b>194,465</b>	<b>100,000</b>	<b>372,347</b>	<b>3,070,306</b>

MISC GRANTS		BUDGET		ACTUAL		
AEDC Energy Efficiency-AMS	150,000	45,244	21,876	-33,729	23,328	56,719
Rockefeller Foundation	89,407	19,492	22,741	19,520	25,275	87,028
<b>TOTAL</b>	<b>239,407</b>	<b>64,736</b>	<b>44,617</b>	<b>-14,209</b>	<b>48,603</b>	<b>143,747</b>