



Endowment Match Program *2003-04 Annual Report*

As the Kentucky General Assembly assessed the condition of postsecondary education in 1997, it was clear that Kentucky was not prepared to compete successfully in a new economy defined by technological sophistication and ready and rapid access to information. Kentucky needed to create a highly-trained workforce capable of using cutting-edge technologies to improve existing products and create new ones. Kentucky also needed to develop an intellectual and scientific infrastructure capable of meeting the research and technological needs of existing businesses as well as creating the next generation of companies.

Despite their considerable individual and collective strengths, the University of Kentucky and the University of Louisville were not fully prepared or appropriately positioned to be primary catalysts for Kentucky's long-term economic success. In order to help Kentucky make the necessary and considerable leap forward, the General Assembly committed to a massive new set of investments in its research institutions.

The result was the Research Challenge Trust Fund – also known as “Bucks for Brains”. The program's core mission is to increase Kentucky's capacity to create new knowledge and transfer it from the laboratory into products and processes that improve people's lives. The chosen method was the recruitment of world-class researchers to the campuses of the University of Kentucky and the University of Louisville. To that end, the Commonwealth of Kentucky has committed over \$300 million to the endowments of UK and UofL. These resources are being matched, dollar for dollar, by donations from private citizens and businesses all across Kentucky and the U.S.

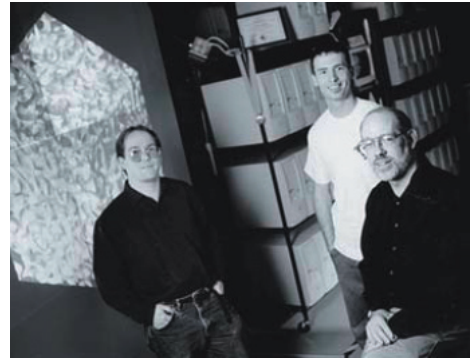
As impressive as this progress has been, UK's stewardship of Bucks for Brains will be judged not so much by the number of researchers recruited and research dollars earned, as by how well those resources are used to attack the health and economic hardships that plague too many Kentuckians for too much of their lives. And UK will be judged not so much by the number of nationally ranked programs of distinction it has, but by how well those programs build Kentucky's economy, strengthen her communities, and solve the problems that hamper and harm her people.

It's About Faculty

Kentucky's innovative investment in the research faculty at the University of Kentucky is paying tremendous dividends. The faculty UK has recruited is focusing on critical areas of concern such as diabetes, heart disease, Parkinson's, and Alzheimer's; improving treatments for those with lung cancer and spinal cord injuries; improving primary and secondary education; reducing underage smoking; and designing technology to assist children with disabilities.

Cheap Supercomputing Solutions

Electrical Engineering professor Hank Dietz is designing supercomputing clusters – personal computers wired together with network hardware and capable of high-end processing for cutting-edge research. Dr. Dietz and his associates also are working to make it possible for supercomputers to be created cheaply and with parts available at wherever computers are sold.



Quicker Treatment for Heart Attack Victims

Each year about one million Americans have an acute myocardial infarction, commonly known as a heart attack. Debra Moser in the College of Nursing is working to lessen the severity of such heart attacks by emphasizing the importance of these victims seeking immediate treatment—“clotbusting” therapy, angioplasty or coronary artery bypass—to prevent irreversible damage and dysfunction.

Reducing Paint Waste for Toyota

Car manufacturers have traditionally had a problem with the painting process—40 percent of the paint is lost on the ground or in the air. At the request of Toyota Motor Manufacturing Kentucky, Kozo Saito in UK's Painting Technology Consortium developed a highly effective paint-capturing device, a scrubber, which pulls paint particles out of the air for reuse. His new patented design cuts paint loss by nearly one-third. This device is now being used in seven different Toyota plants worldwide.



It's About Students

UK is also using the program to invest in students. Top research universities that recruit world-class researchers attract the best students. Since 1997, UK has:

- awarded 210 graduate students full-tuition fellowships
- awarded 1,465 research assistants full-tuition assistantships
- provided summer research experience through the Kentucky Young Scientist Summer Research Program to a total of 74 UK African-American undergraduates over the last three summers.

In addition, hundreds of our students are in the laboratory every semester alongside faculty who are working with cutting-edge ideas and technologies. We are putting in our students' hands the latest tools in the continuous stream of innovation and advancement.

It's About Kentucky

Kentucky benefits directly and indirectly from the research UK does and the federal dollars it attracts. During the last year alone, research grants and contracts from out-of-state sources resulted in a \$464.3 million contribution to the Kentucky economy, including \$152.9 million in personal income. Externally supported research accounted for a total 8,172 jobs in the Commonwealth—6,241 jobs at UK and the rest throughout the state. And each dollar of out-of-state external funding for research generates 80 cents in additional spending in the Kentucky economy.

This report covers the activity and expenditures supported at the University of Kentucky under the Research Challenge Trust Fund Endowment Match Program. During fiscal year 2003-04, the University submitted two requests to the Council on Postsecondary Education for matching funds totaling \$1,864,197. As of June 30, 2004, the Council had processed those requests and disbursed state matching funds to the University (Table 6). As of June 30, 2004, state matching funds have helped create or expand 437 endowments valued at \$263,641,937 (Table 7).

RCTF at a Glance

The University of Kentucky has used its share of this investment to:

- create 65 endowed chairs (awarded 40) and 159 endowed professorships (awarded 99)
- create 213 fellowships and scholarships, and endowments for research support and the William T. Young Library
- hire 57 new faculty in university-designated programs of distinction:
 - Gerontology and Aging
 - Advanced Medical Research
 - Clinical Pharmaceutical Sciences
 - Toxicology
 - Computer Science and Electrical Engineering
 - Materials Synthesis
 - Plant Sciences
 - Biological Chemistry
 - Management and Economics
 - Psychology of Substance Abuse and Prevention
 - Geography
- fund an average of 100 graduate research fellows and research assistants each year
- provide nearly \$6 million for faculty start-up expenses, lab renovations, and equipment
- invest \$17.5 million on a major research equipment initiative.

These efforts have been central to UK's ability to earn \$238.3 million in extramural funding in 2004. That is up from just over \$148 million four years ago. There are 280 active patents on campus, primarily in pharmaceuticals, plant biotechnology, and biomedical engineering. And UK collected \$762,530 in royalties from intellectual property in 2003-04.

Endowment Activity

Private donations and state matching funds supported the addition of 34 endowed activities at the University of Kentucky in 2003-04. This includes the addition of 3 endowed chairs, 13 endowed professorships, 8 fellowships, 2 scholarships, and 8 mission support projects. A schedule of activities initiated during 2003-04 and the total activities initiated since the inception of the program as of June 30, 2004, are presented in Table 1.

Table 1: Match Program Positions, Programs, and Projects Established During Fiscal Year 2003-04 and Since Program Inception

Activity	Fiscal Year 2003-04		1998-2004	
	Number of Positions or Projects	Occupied or Projects with Expenditures	Number of Positions or Projects	Occupied or Projects with Expenditures
Chairs	3	0	65	40
Professorships	13	0	159	98
Fellowship	8	0	109	55
Scholarships	2	0	12	9
Mission Support	8	0	92	45
Totals	34	0	437	247

Demographic Information

As of June 30, 2004, the University of Kentucky has appointed a total of 138 endowed chairs and professorships to positions created with Endowment Match Programs funds. Of these appointments, 113 (82 percent) were male and 25 (18 percent) were female. Of the 59 staff associated with the endowments, 27 (46 percent) are male and 32 (54 percent) are female. Demographic information on the appointment of faculty and associated staff is provided in Tables 2 and 3.

Table 2: Gender of Endowment Match Program Faculty and Staff as of June 30, 2004

	Male	Female	Total
Chairs	34	6	40
Professorships	79	19	98
Staff	27	32	59
Total	140	57	197

**Table 3: Race of Endowment Match Program
Faculty and Staff as of June 30, 2004**

	American					Total
	White	Black	Indian	Asian	Hispanic	
Chairs	34	0	0	5	1	40
Professorships	91	1	0	5	1	98
Staff	31	2	0	26	0	59
Total	156	3	0	36	2	197

In 2003-04, there were a total of 121 endowed fellowships and scholarships. Twelve of these positions were scholarships or a combination of scholarships and fellowships. A fellowship/scholarship endowment can support multiple awards. Sixty-three of the 121 endowed fellowship/scholarships funded student awards. 162 graduate students received fellowships funded by endowment program proceeds. Demographic information on the financial aid award recipients is provided in Table 4.

**Table 4: Gender and Race of Match Program Financial Aid Recipients
For Awards During Fiscal Year 2003-04**

	American					Total
	White	Black	Indian	Asian	Hispanic	
Scholarship Recipients						
Male	14	0	0	1	0	15
Female	9	0	0	0	0	9
Subtotal	23	0	0	1	0	24
Fellowship Recipients						
Male	63	4	1	24	1	93
Female	55	5	0	8	1	69
Subtotal	118	9	1	32	2	162
Total	141	9	1	33	2	186

Areas of Concentration

The 2002-04 Endowment Match Program Guidelines stipulate that at least 70 percent of program funds at the research institutions must be used to support the Research Challenge programs or academic disciplines contained within the five new economy clusters: (1) human health and development; (2) biosciences; (3) materials science and advanced manufacturing; (4) information technologies and communications; and (5) environmental and energy technologies. These areas are considered strategic for the Commonwealth and are core components of a knowledge-based economy. The University of Kentucky has directed 91.9 percent of the 2002-04 funds received through June 30, 2004 to support positions, programs, or projects in the new economy clusters. (Table 5)

**Table 5: Match Program Funds Dedicated to New Economy Clusters
For All Matched 2002-04 Appropriation Funds**

	<u>State Funds*</u>	<u>Private Funds**</u>	<u>Total</u>	<u>Percent of Total</u>
Human Health and Development	\$1,381,293	\$1,381,293	\$2,762,586	74.1%
Biosciences	-	-	0	0.0%
Materials Science and Advanced Manufacturing	331,904	331,904	663,808	17.8%
Information Technologies and Communications	-	-	0	0.0%
Environmental and Energy Technologies	-	-	0	0.0%
Total New Economy Clusters	<u>\$1,713,197</u>	<u>\$1,713,197</u>	<u>\$3,426,394</u>	<u>91.9%</u>
Other	\$151,000	\$151,000	\$302,000	8.1%
Total	<u>\$1,864,197</u>	<u>\$1,864,197</u>	<u>\$3,728,394</u>	<u>100.0%</u>

* Includes all 2000-02 and 2002-04 match program appropriation funds received by the university prior to fiscal year end, as of June 30, 2004. Does not include pending payments.

** Includes only cash gifts and pledges that were used to match 2000-02 and 2002-04 appropriation funds received prior to fiscal year end as of June 30, 2004. Does not include unmatched or pending requests.

Source of Funds

During fiscal year 2003-04, the University of Kentucky received \$1,864,196 in gifts and pledges from private sources (Table 6) that were matched with state funds. About 84 percent of that amount, \$1,574,196, was received in cash with the remainder received in the form of pledges.

Earnings and Expenditures

As of June 30, 2004, the total market value of the 418 endowed activities established under the Endowment Match Program was \$263,641,937 (Table 7). As of June 30, 2004, the University of Kentucky had received a total of \$137,337,126 in state funds and \$118,721,269 in matching gift funds. The University has outstanding pledges of \$18,615,857 related to these endowments as of June 30, 2004. Approximately \$9.4 million was expended from the endowments for the program activities during the fiscal year ended June 30, 2004.

