

Kentucky Cabinet for Economic Development

Office of Entrepreneurship

Annual Report for
July 1, 2012 to
June 30, 2013

Submitted to:

Governor Steve Beshear,
The Legislative Research Commission
and the Kentucky Innovation Commission
pursuant to KRS 154.12-278

Submitted by:

Erik Dunnigan, Interim Executive Director
Office of Entrepreneurship
Kentucky Cabinet for Economic Development

Office of Entrepreneurship

The Office of Entrepreneurship¹ is responsible for working with innovation stakeholders in Kentucky to create an entrepreneurial eco-system that will attract and retain innovation and entrepreneurship throughout the Commonwealth.

This annual report has been prepared and submitted per KRS 154.12-278, Paragraph 3(b), which requires that the Office report annually prior to November 1 to the Kentucky Innovation Commission, the Governor, and the General Assembly.

Interim Executive Director Erik Dunnigan and his staff thank the Governor and the General Assembly for their support of the Cabinet and Office.

¹ Effective June 17, 2013, the Kentucky Economic Development Partnership Board reorganized the structure of the Cabinet and the Department of Commercialization and Innovation was merged with the Cabinet's Small Business Services Division to create the Office of Entrepreneurship ("Office").

Overview

The Office of Entrepreneurship (“Office”), formerly the Department of Commercialization and Innovation, implements innovation-driven economic development strategies that encourage innovation and entrepreneurship.

Innovation and commercialization are critical to our state’s and nation’s prosperity. Since 1945, about half of the growth in the U.S. Gross Domestic Product is related to the development of new technologies. Research by the Boston Consulting Group shows that innovation is becoming even more important to productivity as 75 percent of the increase in U.S. productivity since 1995 can be traced to innovation alone.

Innovation requires new ideas, which must be turned into new products, and depends greatly on start-up companies founded by entrepreneurs. These new companies, in turn, create new jobs. In fact, without small businesses, the Kauffman Foundation shows there would have been negative job growth in the U.S. between 1980 and 2009.

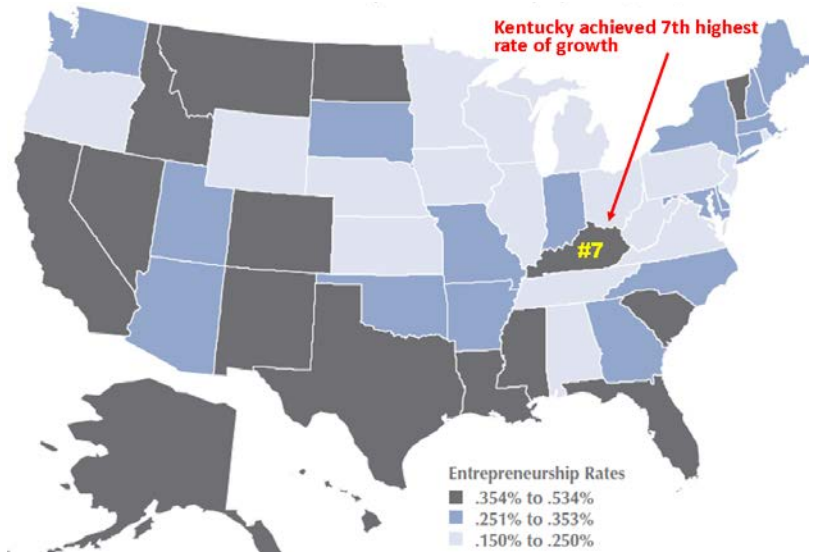
Kentucky consistently ranks among the leaders in creating new businesses. For the decade 2001-2010, the Kauffman Foundation ranked Kentucky 5th among all states – and tied for 7th in 2012 (see map above). For the two-year period 2011-2012, the nationwide *Startup America Partnership* ranked Kentucky 5th in entrepreneurial activity.

The Commonwealth’s small businesses and entrepreneurs have benefited from funding programs and services provided by the Cabinet for Economic Development (CED). This funding has facilitated the creation of thousands of jobs, including more than 5,500 new jobs by the Kentucky Innovation Network, 366 new jobs by the SBIR-STTR Matching Funds Program, and the projected creation of over 600 new jobs by the High-Tech Pool Program.

The jobs created directly by these innovative companies also indirectly produce many more jobs in supporting sectors. The Milken Institute estimates, for example, that for every job created in the biotechnology sector, 5.7 jobs in other sectors are also created.

The following report summarizes the activities of the Office from July 1, 2012, through June 30, 2013.

Kauffman Index of Entrepreneurial Activity by State (2012)



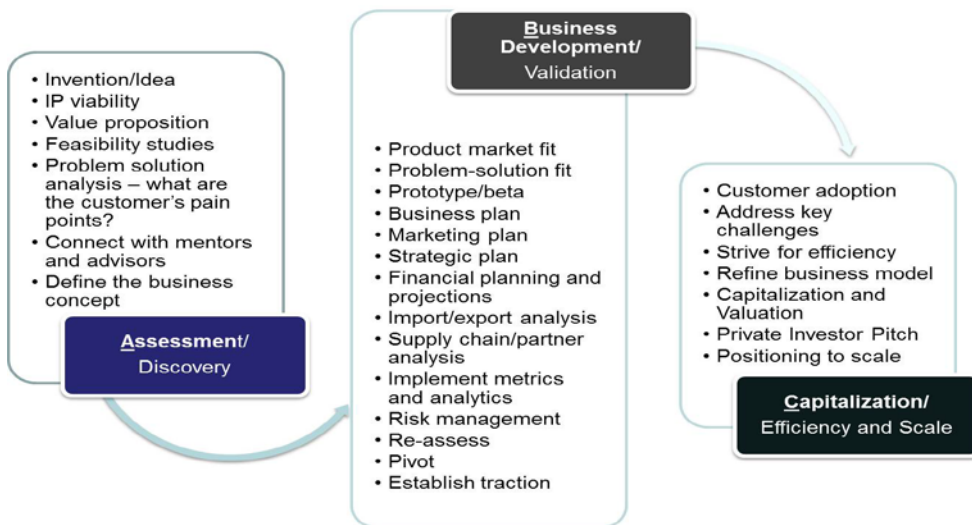
Office of Entrepreneurship Activities

Kentucky Innovation Network

The Office manages the state's Kentucky Innovation Network, which consists of 12 regional Innovation & Commercialization Center (ICC) locations. The ICCs provide services to businesses throughout Kentucky. Network efforts also increase skills in entrepreneurship, start-up processes, and investment practices, while providing value-added services to existing businesses, startups and the investment community. The program is administered by way of contract with the Office by the Kentucky Science and Technology Corporation. The goal of the program is to increase the likelihood that high-growth, knowledge-based businesses can be started in Kentucky and obtain both public and private investments to develop and grow.

Location	Director
Ashland	Mick Fosson
Bowling Green	Doug Rohrer
Covington	Casey Barach
Elizabethtown	Lisa Williams
Lexington	Warren Nash
London	Bill Schutters
Louisville	Bill Dawson*
Morehead	Johnathan Gay
Murray	Loretta Daniel
Owensboro	Madison Silvert
Paducah	Ian Blache
Richmond	Kristel Smith
Williamstown	Naashom Marx**

*Resigned after June 30, 2013. **Resigned October 2012; office closed at end of fiscal 2013. Covington ICC now covers this region.



The Kentucky Innovation Network uses a proven methodology that is simple, efficient and effective.

The commercialization methodology (shown at left) provides the framework for helping entrepreneurs navigate from concept to venture-ready entity.

Performance Results Highlights (Per KSTC Fiscal 2013 Annual Report)

ICC Program Activities	FY2011	FY2012	FY2013	FY11-13
New Companies	147	198	240	585
Sales Revenues	\$572M	\$458M	\$474M	\$1.5B
External Investments Received	\$96M	\$127M	\$113M	\$336M
New Jobs	750	811	1,074	2,635
Avg. Salary of New Jobs	\$57,159	\$50,535	\$54,909	\$54,203
KY Investment per Job	\$2,461	\$2,422	\$2,089	\$2,324

All 1,074 new jobs in FY2013 are positions with an average annual salary of \$54,909, generating approximately \$3.5 million of payroll taxes.

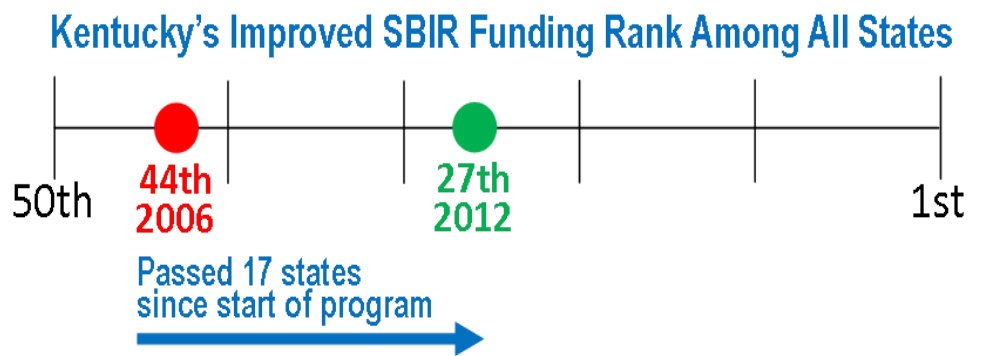
With an Office investment of \$2,244,095 in FY2013, and estimated tax revenue of \$3,538,336 from the 1,074 new paid jobs created in FY2013 alone, the Commonwealth achieved a positive return on its investment in eight months. This calculation is only one of many ways to determine return on investment. Personal income tax analysis was chosen to show there is a robust return on the state's investment even when calculated conservatively.

SBIR-STTR Matching Funds Program

The Kentucky Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Matching Funds Program was implemented in November 2006 to encourage small businesses to explore their technological potential and maximize profit from commercialization. The nationally promoted program, the most comprehensive of its kind in the nation, matches both Phase 1 and Phase 2 federal awards received by Kentucky's small, high-tech businesses. The program matches Phase 1 federal awards up to \$150,000 to support exploration of the technical merit or feasibility of an idea or technology. Phase 2 federal awards, which support full-scale research and development, are matched by Kentucky up to \$500,000 for up to two years. The number of Kentucky firms applying for, and receiving, federal awards has increased since Kentucky began offering SBIR-STTR grants.

State Rank for SBIR Funds

The unique Kentucky SBIR-STTR Matching Funds Program began in 2006 when Kentucky ranked 44th out of 50 states in number of Phase 1 and Phase 2 SBIR awards received. Just six years later, Kentucky ranked 27th.



Round	Solicitation Period	Number of Applications	Number of Awards	Matching Funds Awarded	Federal Grant Funding
1-11	October 26, 2006- May 18, 2011	134	112	\$26,809,120	\$44,297,938
12	July 1, 2011 – August 1, 2011	8	3	\$759,478	\$1,370,347
13	October 1, 2011 – October 31, 2011	12	9	\$3,389,934	\$8,497,155
14	January 1, 2012 – January 31, 2012	7	4	\$1,086,979	\$2,662,268
15	April 1, 2012 – May 14, 2012	11	9	\$1,509,593	\$2,815,843
16	July 1, 2012 – July 31, 2012	11	8	\$1,277,438	\$1,918,160
17	October 1, 2012 – October 31, 2012	10	8	\$2,116,829	\$3,009,046
18	January 1, 2013 – January 31, 2013	3	2	\$300,000	\$450,000
19	April 1, 2013 – April 30, 2013	4	4	\$1,188,226	\$1,991,666
Totals		200	159	\$38,437,597	\$67,512,423

Impact of the Kentucky SBIR-STTR Matching Funds Program (Rounds 1-19)

The Kentucky SBIR-STTR Matching Funds Program creates high-paying jobs, helps small businesses establish licensing agreements, and creates intellectual property.

Benefits to Date of Matching Funds Program (FY2006-2013)				
	Jobs Created	Licensing Agreements	Patents Filed	Out-of-State Firms Creating Kentucky Operations Due to Program
Rounds 1-19 To Date	366	13	117	20

Part-time jobs converted to full-time before totaling. Job definitions were not provided and all data was self-reported.

Firms Establishing Operations in KY Due to Program

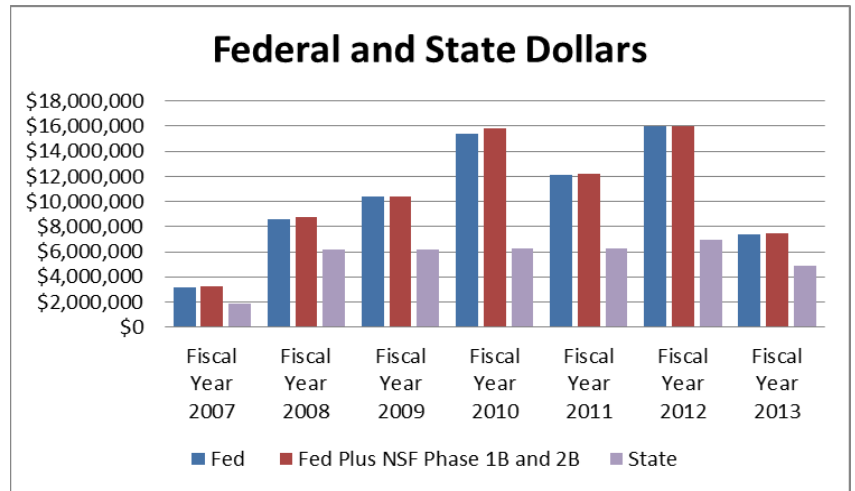
	<u>Moved To</u>	<u>From</u>
1. Advanced Dynamics	Lexington	Utah
2. Transposagen Biopharmaceuticals	Lexington	Pennsylvania
3. NeoCytex Biopharma	Covington	Florida
4. Turbo Wheelchairs	Louisville	South Carolina
5. Bexion Pharmaceuticals	Covington	Ohio
6. Alloy Technology Innovations (ATI)	Lexington	West Virginia
7. 3H Company	Lexington	Virginia
8. Louisville Biosciences	Louisville	Oregon
9. nGimat	Lexington	Georgia
10. Orthopeutics	Lexington	Texas
11. Exatherm	Covington	Michigan
12. Global Quality Corp.	Covington	Ohio
13. Invenio Therapeutics	Lexington	Ohio
14. Minerva Systems & Technologies	Lexington	Rhode Island
15. TeleHealth Holdings	Lexington	Texas
16. Innovative Energy Solutions	Lexington	Illinois
17. Biomedical Development Corporation (FY13)	Lexington	Texas
18. Hitron Technologies (FY13)	Lexington	California
19. New Global Systems for Intelligent Transport Mgmt. (FY13)	Lexington	Mississippi
20. NOHMs Technologies (FY13)	Lexington	New York

The companies relocating to Kentucky have brought with them \$20,138,791 in federal R&D awards.

Improved Success in Obtaining Federal SBIR and STTR Awards

Since 2007, Kentucky has leveraged \$1.76 in federal awards for every \$1.00 awarded in state matching awards (\$67,512,423 in federal versus \$38,437,597 in state awards). The 20 companies that relocated to Kentucky have attracted federal funds from seven federal agencies for a total of \$20,138,791 – funding that would have gone to other states if not for Kentucky’s program. The program is administered by way of contract with the Office by the Kentucky Science and Technology Corporation.

SEE APPENDIX A FOR MATCHING FUNDS DATA



Commonwealth Seed Capital

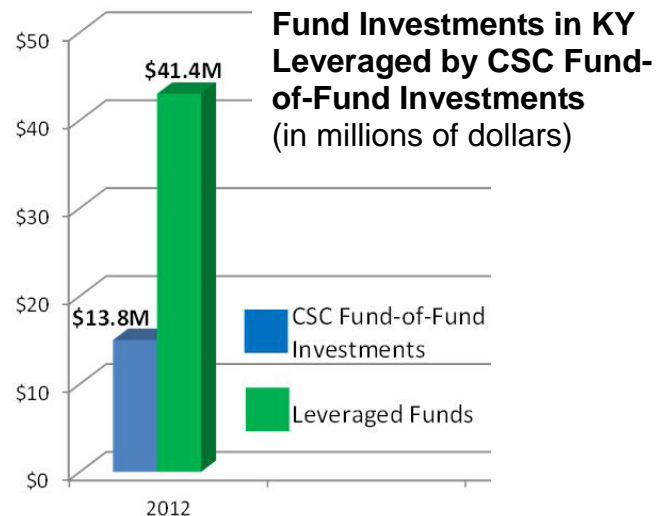
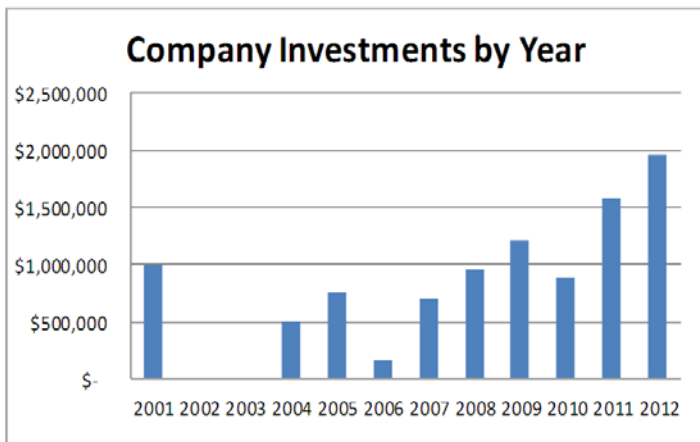
Commonwealth Seed Capital, LLC (CSC) was established by the Economic Development Partnership Board and is an independent fund that makes investments in early-stage Kentucky business entities, and other funds that do the same, to facilitate the commercialization of innovative ideas and technologies. CSC invests in companies that have a significant Kentucky presence and the prospect for substantial growth. (All CSC results are for calendar year 2012.) CSC has historically been managed by Cabinet staff and service providers on contract with the Cabinet. The management committee has now hired its own manager and moved to 300 W. Vine Street, Lexington, KY 40507. Contact Gene Fuqua, President, at (859) 685-3397.

CSC Activities in 2012:

Total Number of Investments: 15
 Total Amount of Investments: \$2,557,000

All years, as of December 31, 2012:

- \$9.7 million was invested in companies since June 2001
- \$13.8 million invested in venture funds that leveraged \$41.4 million
- \$4.9 million in distributions received since 2003



SEE APPENDIX B FOR DETAILS OF CSC PORTFOLIO

Kentucky New Energy Ventures Fund

The Kentucky New Energy Ventures Fund (KNEV) was included in HB1 of the Extraordinary Session of the 2007 Kentucky General Assembly for the purpose of enabling Kentucky-based companies to undertake research, development and commercialization in the field of alternative fuels and renewable energy.

The Kentucky Science and Technology Corporation (KSTC) manages the \$5 million KNEV fund for investment in promising renewable and alternative energy companies in the Commonwealth under contract to the Office. Since 2008, 21 grants (\$630,000 committed) and seven investments (\$2.56 million committed) have been awarded to companies for a total of \$3,190,000 in KNEV funding. Of the 28 awards, 20 (71%) went to rural-based companies (based outside of Fayette and Jefferson counties).

SEE APPENDIX C FOR LIST OF KNEV FUND AWARDS

High-Tech Pool Program

The Office administers the High-Tech Pool Program from which funds have been used, since January 2003, to support companies and projects. All funding must be approved by the Kentucky Economic Development Finance Authority (KEDFA). For July 2012 through June 2013, KEDFA awarded \$395,000 for four projects and \$325,000 for two high-tech companies for 21 high-tech jobs with an average salary over \$55,000. An additional \$89,000 in sponsorships and to support initiatives was awarded from Office operating funds.

\$19,921,000 for 37 Active Companies

The 37 active companies are projecting 627 jobs by the end of 2015 at an average salary of \$68,939.

\$113,126,037 for 93 Projects

Technology Focus Area (Firms funded since Jan. 2003)	No. of Firms
Human Health and Development	7
Information Technology and Communications	12
Biosciences	9
Energy & Environmental Technology	1
Advanced Manufacturing and Materials Science	8
TOTAL	37

Funded from the High-Tech Pool Program July 1, 2012 to June 30, 2013				
Company Grants	Technology Focus Area	High-Tech Jobs to be Created	Average Salary	Award
Control Systems Design and Automation, Inc.	Advanced Manf./ Materials Science	6	\$ 46,000	\$75,000
Jacobs Automation, Inc.	Advanced Manf./ Materials Science	15	\$ 58,600	\$250,000
		21	\$ 55,000	\$325,000
Project Grants				
XLerateHealth	N/A	N/A	N/A	\$150,000
Kentucky Science & Technology Corporation - FAST Program (Federal and State Technology Partnership)	N/A	N/A	N/A	\$120,000
Kentucky Science & Technology Corporation - Kentucky Space, LLC	N/A	N/A	N/A	\$100,000
UpTech, LLC	N/A	N/A	N/A	\$25,000
				\$395,000
Initiatives & Sponsorships (from Operating Funds)				
XLerateHealth	N/A	N/A	N/A	\$25,000
Lexington Venture Club - Annual Celebration of Entrepreneurs sponsorship	N/A	N/A	N/A	\$3,000

UofL Renewable Energy Workshop sponsorship	N/A	N/A	N/A	\$10,000
Venture Sharks 2013 sponsorship	N/A	N/A	N/A	\$1,000
IdeaFestival 2013 Lead Sponsor	N/A	N/A	N/A	\$25,000
KSTC Founders Lab Program	N/A	N/A	N/A	\$25,000
				\$89,000

SEE APPENDIX D FOR MORE INFORMATION ABOUT HIGH-TECH POOL PROGRAM AWARDS

Annual BIO State Pavilion and Governor’s Reception

In April 2013, Kentucky participated in the annual Biotechnology Industry Organization (BIO) international convention in Chicago, IL, which attracted over 14,000 attendees. Economic development organizations and research organizations from across the Commonwealth exhibited in the Kentucky State Pavilion to promote their technologies and Kentucky’s advantages for business. The 13th annual Kentucky Governor’s Reception was held for invited guests, which provided many opportunities to promote the state’s biotech activities. Governor Steve Beshear and a team of state officials attended and met with companies and officials from other nations interested in doing business with and/or within the state. Governor Beshear conducted media interviews to promote the advantages that Kentucky offers to biotech and other high-tech companies. Kentucky’s expanded presence at international events, including BIO, is enhancing the Commonwealth’s reputation throughout the global high-tech community.



Past Exhibitors in the Kentucky BIO Pavilion

- Advanced Genomic Technology
- bioLOGIC
- Center for Predictive Medicine
- Coldstream Laboratories
- Commerce Lexington
- Enzymax
- Hollison Technologies
- Kentucky BioAlliance
- Naprogenix
- NaugaNeedles
- Northern Kentucky Tri-ED
- Scout Diagnostics
- OrthoData Technologies
- ParaTechs
- Peptides International
- Potentia Pharmaceuticals
- Rhinocyte
- SureGene
- Transposagen Biopharmaceuticals
- University of Kentucky
- University of Louisville
- Western Kentucky University



Statewide Business Plan Competition

Kentucky held the sixth annual statewide “Idea State U” business concept and business plan competition April 12-13, 2013. A combined 18 graduate and undergraduate student teams from Kentucky’s public universities competed. The program supports entrepreneurship and the development of new high-growth ventures in Kentucky.

The teams earned a combined \$100,000 in cash prizes and awards, making this one of the top state-sponsored business plan competitions in the nation. To compete, some of the universities expanded their business school programs and/or created entirely new internal competitions to produce entries for the state competition. Each year a Governor’s Innovation Award is presented to the team having the entry that demonstrates the most innovative and outside-the-box thinking.

One entry in 2013 was by a venture developing a system that will use Fresnel lens technology (like that used in lighthouses) to create affordable water desalination units. Another venture has developed patented fasteners for the aerospace market that will help reduce aircraft service and repair time.

The following are some of the more than 20 companies that have formed their Idea State U ventures as legal businesses in Kentucky following their respective competitions.

Awesome Touch: Interactive touchscreen displays that can be projected onto any surface

WebNoise: Helps businesses learn what customers are posting online about product or service experiences

The Butter Factory: Retail store selling natural products imported from Ghana

U.S. Chia: Line of chia seeds modified to grow in the U.S.; can prevent equine colic and laminitis in horses

Tag-A-Pet: Offers “smart tags” and a website to help retrieve lost pets

Cuddle Clones: Custom-made plush toys that consumers can design using an interactive web tool

Southern Kentucky Sock: A direct sales sock company that sews QR codes into socks to help customers reorder



Schools that have participated in Idea State U competitions:

- **University of Louisville**
- **University of Kentucky**
- **Morehead State University**
- **Northern Kentucky University**
- **Eastern Kentucky University**
- **Western Kentucky University**
- **Kentucky State University**
- **Murray State University**

APPENDIX A: SBIR-STTR Matching Funds Recipients: Rounds 1-19

Award Date	Company (in reverse chronological order)	Technology Area	Matching Grant
7/1/13	NOHMs Technologies, Inc.	Environmental and Energy Technologies	\$325,000
7/1/13	Signal Solutions, LLC	Biosciences	\$150,000
7/1/13	Alkymos, Inc.	Human Health and Development	\$213,542
7/1/13	Naprogenix, Inc.	Biosciences	\$499,684
4/1/13	Vindico NanoBioTechnology, Inc.	Biosciences	\$150,000
4/1/13	Advanced Energy Materials, LLC	Materials Science and Advanced Manufacturing	\$150,000
1/1/13	Advanced Cancer Therapeutics	Human Health and Development	\$150,000
1/1/13	Four Tigers, LLC	Human Health and Development	\$317,040
1/1/13	3P Biotechnologies, Inc.	Human Health and Development	\$150,000
1/1/13	NuForm Materials, LLC	Materials Science and Advanced Manufacturing	\$149,998
1/1/13	CoPlex Therapeutics	Biosciences	\$99,791
1/1/13	SCR, Inc.	Human Health and Development	\$500,000
1/1/13	Hitron Technologies, Inc.	Materials Science and Advanced Manufacturing	\$250,000
1/1/13	New Global Systems for Intelligent Transportation Management	Information Technology and Communications	\$500,000
10/1/12	Okeanos Technologies, Inc.	Environmental and Energy Technologies	\$79,264
10/1/12	Rigid Solutions, LLC	Materials Science and Advanced Manufacturing	\$149,999
10/1/12	AllTranz, Inc.	Biosciences	\$150,000
10/1/12	MosquitoMate, Inc.	Biosciences	\$150,000
10/1/12	Minerva Systems & Technologies, LLC	Information Technology and Communications	\$148,260
10/1/12	Biomedical Development Corporation	Human Health and Development	\$150,000
10/1/12	Biomedical Development Corporation	Human Health and Development	\$299,915
10/1/12	EndoProtech, Inc.	Human Health and Development	\$150,000
7/1/12	Noveratech	Human Health and Development	\$150,000
7/1/12	Regenerex LLC	Biosciences	\$150,000
7/1/12	Vindico NanoBio Technology Inc.	Biosciences	\$150,000
7/1/12	Brockman Hastings LLC	Human Health and Development	\$150,000
7/1/12	Innovative Energy Solutions	Environmental and Energy Technologies	\$252,810
7/1/12	Invenio Therapeutics	Biosciences	\$150,000
7/1/12	InfoBeyond LLC	Information Technology and Communications	\$256,783
7/1/12	TeleHealth Holdings LLC	Human Health and Development	\$100,000
7/1/12	TeleHealth Holdings LLC	Human Health and Development	\$150,000
4/1/12	Minerva Systems and Technologies LLC	Information Technology and Communications	\$337,018
4/1/12	Wilson's Cedar Point Farms	Biosciences	\$99,961
4/1/12	Sequela LLC	Human Health and Development	\$150,000
4/1/12	Alcomed Inc.	Biosciences	\$500,000
1/1/12	Amelgo LLC	Biosciences	\$100,000
1/1/12	Regenerex LLC	Biosciences	\$500,000
1/1/12	AMT Nano	Materials Science and Advanced Manufacturing	\$90,000
1/1/12	customKYnetics Inc.	Human Health and Development	\$494,458
1/1/12	Transposagen Biopharmaceuticals Inc.	Human Health and Development	\$500,000
1/1/12	Invenio Therapeutics	Human Health and Development	\$434,480
1/1/12	nGimat	Materials Science and Advanced Manufacturing	\$374,996
1/1/12	Tier1 Performance Solutions Inc.	Information Technology and Communications	\$396,000
1/1/12	Bexion Pharmaceuticals Inc.	Biosciences	\$500,000
10/1/11	ParaTechs Corporation	Human Health and Development	\$459,478

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Award Date	Company (in reverse chronological order)	Technology Area	Matching Grant
10/1/11	AllTranz Inc.	Biosciences	\$150,000
10/1/11	W-Z BioTech LLC	Human Health and Development	\$150,000
7/1/11	ATI, Inc.	Materials Science and Advanced Manufacturing	\$98,748
7/1/11	3H Company	Environmental and Energy Technologies	\$232,212
7/1/11	Advanced Genomic Technology	Health and Human Development	\$500,000
4/1/11	nGimat	Materials Science and Advanced Manufacturing	\$500,000
4/1/11	Orthopeutics	Health and Human Development	\$359,400
4/1/11	NaugaNeedles	Materials Science and Advanced Manufacturing	\$375,758
2/1/11	Alkymos	Biosciences	\$500,000
2/1/11	Advanced Energy Materials	Environmental and Energy Technologies	\$150,000
2/1/11	Alcomed	Health and Human Development	\$150,000
2/1/11	Scout Diagnostics	Biosciences	\$435,600
2/1/11	Global Quality Corp.	Information Technology and Communications	\$364,990
2/1/11	Louisville Biosciences	Biosciences	\$249,913
2/1/11	Bexion Pharmaceuticals	Health and Human Development	\$500,000
11/1/10	Transposagen Biopharmaceuticals	Biosciences	\$499,936
11/1/10	SureGene	Health and Human Development	\$365,579
11/1/10	Exatherm	Health and Human Development	\$500,000
11/1/10	ParaTechs Corp.	Health and Human Development	\$111,002
11/1/10	customKYnetics	Health and Human Development	\$147,783
11/1/10	NuForm Materials	Materials Science and Advanced Manufacturing	\$149,996
11/1/10	InfoBeyond Technology	Information Technology and Communications	\$99,000
7/1/10	Advanced Dynamics	Information Technology and Communications	\$364,999
7/1/10	Vindico NanoBio Technologies	Health and Human Development	\$100,000
7/1/10	Advanced Genomic Technologies	Biosciences	\$100,000
7/1/10	Talon Technologies	Materials Science and Advanced Manufacturing	\$99,996
7/1/10	3H Company	Environmental and Energy Technologies	\$267,786
7/1/10	Orthopeutics	Biosciences	\$408,000
7/1/10	nGimat	Materials Science and Advanced Manufacturing	\$500,000
3/1/10	NaugaNeedles	Materials Science and Advanced Manufacturing	\$100,000
3/1/10	Atkins and Pearce	Environmental and Energy Technologies	\$99,983
3/1/10	Oraceuticals	Biosciences	\$100,000
3/1/10	Vision Dynamics	Materials Science and Advanced Manufacturing	\$100,000
3/1/10	TiER1 Performance Solutions	Information Technology and Communications	\$395,000
1/1/10	Topasol	Materials Science and Advanced Manufacturing	\$251,000
1/1/10	Pharmacogenetics Diagnostic Laboratory	Biosciences	\$375,000
1/1/10	NuForm Materials	Materials Science and Manufacturing	\$314,000
1/1/10	SCR	Health and Human Development	\$430,000
1/1/10	ApolImmune	Biosciences	\$430,000
1/1/10	Four Tigers	Human Health and Development	\$100,000
1/1/10	3H Company	Environmental and Energy Technologies	\$99,989
1/1/10	Transposagen Biopharmaceuticals	Human Health and Development	\$100,000
1/1/10	NaugaNeedles	Materials Science and Manufacturing	\$100,000
10/1/09	SureGene	Human Health and Development	\$361,939
10/1/09	EndoProtech	Human Health and Development	\$270,000
10/1/09	Vision Dynamics	Materials Science and Manufacturing	\$250,000
10/1/09	Louisville Biosciences	Biosciences	\$99,801

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and the Kentucky Innovation Commission pursuant to KRS 154.12-278.

Award Date	Company (in reverse chronological order)	Technology Area	Matching Grant
10/1/09	Adaptive Intelligent Systems	Materials and Advanced Manufacturing	\$449,966
6/1/09	Advanced Dynamics	Information Technology and Communications	\$99,917
5/1/09	ParaTechs	Human Health and Development	\$100,000
4/1/09	Transposagen Biopharmaceuticals	Biosciences	\$100,000
4/1/09	NeoCytex Biopharmaceuticals	Biosciences	\$100,000
3/1/09	TiER1 Performance Solutions	Information Technology and Communications	\$99,982
3/1/09	Synergetic Technologies	Materials Science and Advanced Manufacturing	\$99,666
2/1/09	ATI	Materials Science and Advanced Manufacturing	\$99,838
2/1/09	3H Company	Environmental and Energy Technologies	\$99,998
1/1/09	Bexion Pharmaceuticals	Biosciences	\$99,965
11/1/08	Advanced Intelligent Systems	Materials Science and Advanced Manufacturing	\$100,000
11/1/08	ApolImmune	Biosciences	\$100,000
10/1/08	ApolImmune	Biosciences	\$500,000
10/1/08	Naprogenix	Biosciences	\$199,000
10/1/08	SCR	Human Health and Development	\$500,000
10/1/08	Pharmacogenetics Diagnostic Laboratory	Biosciences	\$500,000
9/1/08	Adaptive Intelligent Systems	Materials Science and Advanced Manufacturing	\$599,678
9/1/08	customKYnetics	Human Health and Development	\$741,809
9/1/08	Mersive Technologies (D)	Information Technology and Communications	\$499,564
9/1/08	Turbo Wheelchairs Company	Human Health and Development	\$741,924
7/1/08	Allylix	Biosciences	\$100,000
7/1/08	NeoCytex Biopharmaceuticals	Biosciences	\$100,000
7/1/08	Sequela	Human Health and Development	\$965,273
7/1/08	Tova Industries	Information Technology and Communications	\$80,000
6/1/08	Alkymos	Human Health and Development	\$99,646
6/1/08	Atkins & Pearce	Materials Science and Advanced Manufacturing	\$88,900
6/1/08	Stallion Therapeutics	Human Health and Development	\$100,000
4/1/08	customKYnetics	Human Health and Development	\$100,000
4/1/08	Direct i2i	Information Technology and Communications	\$100,000
4/1/08	Peptides International	Biosciences	\$100,000
4/1/08	Adaptive Intelligent Systems	Materials Science and Advanced Manufacturing	\$100,000
3/1/08	Novera	Biosciences	\$846,500
3/1/08	Topasol	Materials Science and Advanced Manufacturing	\$99,100
3/1/08	NuForm Materials	Materials Science and Advanced Manufacturing	\$98,602
2/1/08	Vision Dynamics	Materials Science and Advanced Manufacturing	\$99,589
1/1/08	Assenti	Biosciences	\$374,985
1/1/08	Transposagen Biopharmaceuticals	Biosciences	\$1,000,000
1/1/08	Tribo Flow Separations	Biosciences	\$100,000
1/1/08	Advanced Dynamics	Information Technology and Communications	\$599,990
12/1/07	Alltranz	Human Health and Development	\$100,000
11/1/07	Pharmacogenetics Diagnostic Laboratory	Biosciences	\$100,000
11/1/07	Advanced Dynamics	Information Technology and Communications	\$99,999
10/1/07	SCR	Health and Human Development	\$100,000
10/1/07	Naprogenix	Biosciences	\$498,460
10/1/07	Naprogenix	Biosciences	\$100,000
10/1/07	ParaTechs	Biosciences	\$743,666
10/1/07	ApolImmune	Biosciences	\$100,000

2013 Annual Report to Governor Steve Beshear, the Legislative Research Commission,
and the Kentucky Innovation Commission pursuant to KRS 154.12-278.

Award Date	Company (in reverse chronological order)	Technology Area	Matching Grant
7/1/07	Hosting.com (D)	Information Technology and Communications	\$100,000
7/1/07	Sequela	Health and Human Development	\$100,000
7/1/07	Scout Diagnostics	Health and Human Development	\$99,843
6/1/07	Wilson's Cedar Point Farms	Biosciences	\$79,729
5/1/07	Advanced Dynamics	Information Technology and Communications	\$99,900
4/1/07	Regenerex	Human Health and Development	\$100,000
4/1/07	Topasol	Materials Science and Advanced Manufacturing	\$78,000
4/1/07	Neathery Technologies	Environmental and Energy technologies	\$70,000
3/1/07	Oraceuticals	Health and Human Development	\$100,000
3/1/07	Naprogenix	Health and Human Development	\$100,000
3/1/07	Lumenware	Information Technology and Communications	\$100,000
3/1/07	Adaptive Intelligent Systems	Materials Science and Advanced Manufacturing	\$69,999
3/1/07	ParaTechs	Biosciences	\$80,000
3/1/07	Potentia Pharmaceuticals	Health and Human Development/Biosciences	\$100,000
3/1/07	SureGene	Health and Human Development	\$100,000
3/1/07	ECM Biosciences	Biosciences	\$100,000
3/1/07	ApolImmune	Biosciences	\$100,000
3/1/07	Mersive Technologies (D)	Information Technology and Communications	\$98,222
3/1/07	SCR	Human Health and Development	\$100,000
3/1/07	customKYnetics	Human Health and Development	\$100,000
Total for 159 State Matching Grants:			\$38,437,597

(D) = Company defaulted on agreement. The Cabinet is pursuing legal remedies.

APPENDIX B: Commonwealth Seed Capital Funding (through June 30, 2013)

This table shows CSC's active investments as of June 30, 2013.

Current Company Investments

<u>Company Investments</u>	<u>Location</u>	<u>Focus Area</u>	<u>Commitment</u>
Adaptive Technologies (dba MobileFit)	Crestwood	Healthclub/Wellness IT Solutions	\$200,000
Advanced Cancer Therapeutics	Louisville	Pharmaceutical Drug Discovery	\$500,000
ApoVax	Louisville	Immunotherapy/ Vaccine	\$500,000
Alltranz	Lexington	Pharmaceutical Drug Discovery	\$500,000
Allylix	Lexington/ San Diego	Flavor/Fragrance Terpene Products	\$500,000
Equinext	Lexington	Equine/Animal Treatments	\$257,000
Gun Media Holdings	Lexington	Gaming Development	\$100,000
IF Technologies	Lexington	Health Information Technology	\$500,000
InfoMinded Kentucky(dba Try It Local)	Louisville	Software-As-A-Service/Daily Deals	\$200,000
INOR	Lexington	Health Technology Platform	\$250,000
Intrepid BioInformatics	Louisville	Genomic Data Repository	\$125,000
Jacobs Automation	Hebron	Industrial Automation Systems	\$750,000
NX PharmaGen	Louisville	Pharmaceutical Drug Discovery	\$350,000
Orthodata	Louisville	Nanotech Spine Fusion Device	\$250,000
ParkVu	Louisville	Internet Music Sharing	\$285,000
RhinoCyte	Louisville	Pharmaceutical Drug Discovery	\$625,000
Seikowave	Lexington	3D Measurement Systems	\$300,000
Therix Medical Development	Lexington	Medical Device Development	\$100,000
Transposagen Biopharmaceuticals	Lexington	Animal Models/Genetics	\$250,000
Vivorte	Louisville	Orthopedic Medical Devices	\$350,000

Current Fund Investments

<u>Fund Investments</u>	<u>Location</u>	<u>Commitment</u>	<u>Funded to Date</u>
Appalachian Micro Equity Fund (Pending)	London	\$ 500,000	\$ 0
Bluegrass Angel Venture Fund*	Lexington	\$1,000,000	\$1,000,001
Bluegrass Angel Venture Fund II	Lexington	\$ 716,000	\$ 576,000
Chrysalis Ventures II, LP	Louisville	\$2,000,000	\$2,000,000
Chrysalis Ventures III, LP	Louisville	\$3,000,000	\$2,784,264
Chrysalis Ventures IV, LP (Pending)	Louisville	\$ 500,000	\$ 0
Kentucky Seed Capital Fund, LP	Louisville	\$1,000,000	\$ 910,000
River Cities Capital Fund III, LP	Cincinnati	\$2,000,000	\$2,000,000
River Cities Capital Fund IV, LP	Cincinnati	\$2,000,000	\$1,700,000
UpTech Fund I	Covington	\$ 100,000	\$ 100,000
Yearling Fund I, LP	Louisville	\$ 500,000	\$ 500,000
Yearling Fund II, LP	Louisville	\$ 500,000	\$ 350,000

*Fund dissolved 12/31/12

APPENDIX C: Kentucky New Energy Ventures Fund Awards through June 30, 2013

Company Name	Technology Focus	County	Grant/ Investment	Award	Private Matching Investment	Status
Wind Energy Corporation	Wind	Hardin	Investment	\$750,000	\$10,400,000	Active
Louisville Clean Energy	Biofuels	Jefferson	Investment	\$250,000	\$4,350,000	Company Closed
Neathery Technologies	Biofuels	Fayette	Grant	\$30,000	\$30,000*	Completed
Kentucky Renewable Energy	Biofuels	McCracken	Grant	\$30,000	\$30,000*	Completed
Thermobaric Energy Systems	Alternative Energy	Hopkins	Grant	\$30,000	\$30,000*	Completed
RE Strategies	Biofuels	Woodford	Grant	\$30,000	\$30,000*	Completed
Kozo Saito, UKRF	Biofuels	Fayette	Grant	\$30,000	\$30,000*	Completed
Genesis Development of Kentucky	Wind	Pike	Grant	\$30,000	\$30,000*	Completed
Kentucky BioFuels	Biofuels	Daviess	Grant	\$30,000	\$30,000*	Completed
Apple Hearth & Home	Wind	Jefferson	Grant	\$30,000	\$30,000*	Agreement Terminated
CNG Energy	Alternative Energy	Pike	Grant	\$30,000	\$30,000*	Award Withdrawn
Planta BioProducts	Biofuels	Daviess	Grant	\$30,000	\$30,000*	Withdrew
Pilus Energy	Biofuels	Kenton	Investment	\$250,000	\$250,000	Award Withdrawn
Highland Biofuels	Biofuels	Carter	Investment	\$500,000	\$660,000	Active
Critical Energy Corporation	Solar	Wolfe	Grant	\$30,000	\$30,000*	Completed
Nooyen Manufacturing	Biofuels	Montgomery	Grant	\$30,000	\$30,000*	Award Withdrawn
XtremeCarbons	Alternative Energy	Fayette	Grant	\$30,000	\$30,000*	Completed
West Wind Power	Wind	Jefferson	Grant	\$30,000	\$30,000*	Completed
Commonwealth Biofuels	Biofuels	Garrard	Grant	\$30,000	\$30,000*	Completed
East Kentucky Biodiesel	Biofuels	Floyd	Grant	\$30,000	\$30,000*	Completed
Oorjaa (formerly PHYchip)	Alternative Energy	Jefferson	Grant	\$30,000	\$30,000*	Award Withdrawn
Topasol	Solar	Fayette	Grant	\$30,000	\$30,000*	Completed
Bio Energy Farms	Biofuels	Franklin	Grant	\$30,000	\$30,000*	Completed
Southeast Biofuels	Biofuels	Montgomery	Grant	\$30,000	\$30,000*	Completed
Wellhead Energy Systems	Biofuels	Pulaski	Investment	\$500,000	\$3,000,000	Active
2nd Generation Wind	Wind	Jessamine	Grant	\$30,000	\$30,000*	Award Withdrawn
ecoPower Generation	Biofuels	Perry	Investment	\$250,000	\$2,164,250	Active
Commonwealth Biofuels	Biofuels	Garrard	Investment	\$60,000	\$60,000	Active

*Denotes that company's private matching investment funds are in-kind contributions

APPENDIX D-1: Companies and projects funded from the High-Tech Pool Program by the Office of Entrepreneurship since July 1, 2012

Control Systems Design and Automation, Inc.

Control Systems Design and Automation (CSD) creates innovative industrial automation, process integration, controls and machine design-build technologies. CSD has developed a cleaning process for manufactured products using equipment that not only improves the cleaning, but also addresses environmental concerns by eliminating the use of hazardous chemicals.

XLerateHealth

EnterpriseCorp, the Louisville office of the statewide Kentucky Innovation Network, has developed a regional accelerator for healthcare software companies. XLerateHealth will offer early stage companies workspace, mentoring and seed funding to develop their healthcare IT, diagnostics service, devices or other healthcare-related business.

FAST Program

The Kentucky FAST Program helps increase participation in the SBIR/STTR federal grant program by woman- and minority-owned businesses, rural businesses and others. The program is developing an infrastructure that can continue after the FAST grant ends; processes to increase the number and quality of SBIR-STTR applications; one-on-one counseling (both technical and business); seminars on using R&D dollars; and an increased capacity for technical and financial assistance by Kentucky's service providers.

Jacobs Automation

Jacobs Automation seeks to transform the automation and packaging industries through the introduction of their intelligent motion transportation system, iTRAK, which produces increased speed, reduced changeover times, lower maintenance requirements and lower energy consumption. Patented technology uses moving magnet linear motors, multiphase drives and an absolute position sensor, controlled by software with an interface to Rockwell and Siemens motion control platforms.

KSTC – Space Tango

Kentucky Science and Technology Corporation and Kentucky Space, both nonprofit companies, along with Morehead State University, the University of Kentucky, and other universities and private companies have created the eSpace Accelerator, named Space Tango. The 10-12 week onsite program provides services, knowledge and networks to help launch a space-related business. The accelerator will provide access to a full team of scientists, space professionals, mentors and facilities, including the NASA Ames Research Center, the Kennedy Space Center, ground operations and tracking facilities at Morehead State University's Space Science Center and University of Kentucky's Space Systems Lab.

UpTech

UpTech, LLC, a nonprofit company operating as a business accelerator, is designed to be a five year program to seed the economy of Northern Kentucky with 50 early stage informatics companies. UpTech will offer equity investment, six months of business accelerator support, executive mentorship, free office space and other support services. The first year of the UpTech program involved over 100 Northern Kentucky University students whose work supported the commercialization of eight companies' products and services.

APPENDIX D-2: Companies and projects funded by the Office of Entrepreneurship prior to July 1, 2012, and in active monitoring status as of June 30, 2013

Company (Fiscal Year of Award)	Focus Area	High-Tech Jobs to be created	Average Salary	Award
Secat (2006)	AM/MS	3	\$50,000	\$850,000
US World Meds (2007)	B	76	\$91,130	\$1,300,000
Peptides International (2007)	B	7	\$56,000	\$175,000
Tap Logic (2007)	IT	68	\$47,785	\$500,000
Alltranz (2007)	B	30	\$80,000	\$500,000
Creosalus (2008)	B	41	\$80,000	\$750,000
SureGene (2008)	HHD	30	\$97,000	\$510,000
Corevalus Systems (2008)	IT	18	\$66,000	\$300,000
Smoothstone IP Communications (2008)	IT	20	\$67,000	\$500,000
3DR Laboratories (2008)	IT	10	\$62,000	\$250,000
dbaDIRECT (2008)	IT	19	\$75,000	\$469,000
Leancor (2008)	IT	14	\$55,000	\$350,000
Advanced Cancer Therapeutics (2008)	HHD	11	\$103,000	\$187,000
Transposagen Biopharmaceuticals (2009)	B	13	\$57,500	\$325,000
MedX12 (2009)	IT	14	\$61,500	\$160,000
NaugaNeedles (2009)	AM/MS	7	\$64,000	\$120,000
PHD Diagnostics (2009)	HHD	10	\$51,000	\$200,000
Gryphon Environmental ()	EET	7	\$50,000	\$100,000
Jacobs Automation (2010)	AM/MS	9	\$65,000	\$150,000
Louisville Bioscience (2010)	HHD	18	\$70,000	\$250,000
Summit Biosciences (2010)	HHD	17	\$ 64,000	\$250,000
HFL Sport Science (2010)	B	25	\$ 47,400	\$425,000
Connected Patients (2010)	IT	8	\$ 61,000	\$100,000
ParaTechs Corporation (2010)	B	7	\$ 55,000	\$120,000
Bexion, LLC (2011)	HHD	7	\$77,000	\$155,000
Corning (2011)	AM/MS	28	\$72,000	\$250,000
Escent Technologies, LLC (2011)	IT	13	\$70,000	\$200,000
Frogdice (2011)	IT	7	\$49,000	\$80,000
Hitcents (2011)	IT	10	\$53,000	\$150,000
nGimat, LLC	AM/MS	18	\$58,500	\$250,000
Vivorte, LLC (2011)	HHD	7	\$72,000	\$120,000
ZoomEssence, Inc. (2011)	AM/MS	11	\$67,000	\$175,000
Allylix (2012)	B	8	\$68,000	\$200,000
CirrusMio (2012)	IT	10	\$69,500	\$100,000
Ferm Solutions (2102)	B	5	\$43,000	\$75,000
SUBTOTAL		606	\$68,939	\$10,596,000
Project (Fiscal Year of Award)				
Sloan Center for Sustainable Aluminum Ind. (2005)	AM/MS	N/A	N/A	\$150,000
Energy + Env Cabinet-Argonne Battery Lab (2010)	EET	N/A	N/A	\$3,500,000
Kentucky Highlands Investment Corp. (2009)	N/A	N/A	N/A	\$100,000
Kentucky Technology Inc. (2009)	N/A	N/A	N/A	\$5,500,000
University of Louisville Nucleus (2013)	B	N/A	N/A	\$3,000,000
WKU Research Foundation (2013)	IT	N/A	N/A	\$100,000
SUBTOTAL		606	\$68,939	\$12,350,000
TOTAL				\$22,946,000
<p>HHD = Health & Human Development; IT = Information Technology & Communications; B = Biosciences; EET = Energy & Environmental Technology; AM/MS = Advanced Manufacturing / Material Science.</p>				

APPENDIX D-3: Companies Withdrawing During Fiscal Year 2013

Company	Industry	Projected Jobs	Proj. Avg. Salary	Award Withdrawn
Alltech (2006)	Biotech	40	\$54,375	\$1,000,000
ApoVax (formerly ApolImmune) (2006)	Biotech	30	\$40,000	\$500,000
	Information Technology	7	\$61,000	\$59,500
Laboratory and Biodiagnostics (LabDx) (2010)	Healthcare	18	\$64,500	\$250,000
Xhale, Inc (2010)	Healthcare	5	\$55,000	\$87,500
Transposagen Biopharmaceuticals (2011)	Biotech	16	\$58,750	\$250,000

APPENDIX D-4: Companies Reclassified During Fiscal Year 2013

The following projects were previously listed as High-Tech Pool Program grant recipients, but are now being tracked as economic development bond recipients:

Company	Industry	Projected Jobs	Proj. Avg. Salary	Award
Aspen (2007)	Advanced Manuf.	40	\$50,000	\$500,000
BAE Systems (2008)	Advanced Manuf.	58	\$72,241	\$750,000
Matrix Engineering (2008)	Energy & Environ.	20	\$55,500	\$500,000
Sud-Chemie (2009)	Energy & Environ.	20	\$72,000	\$500,000